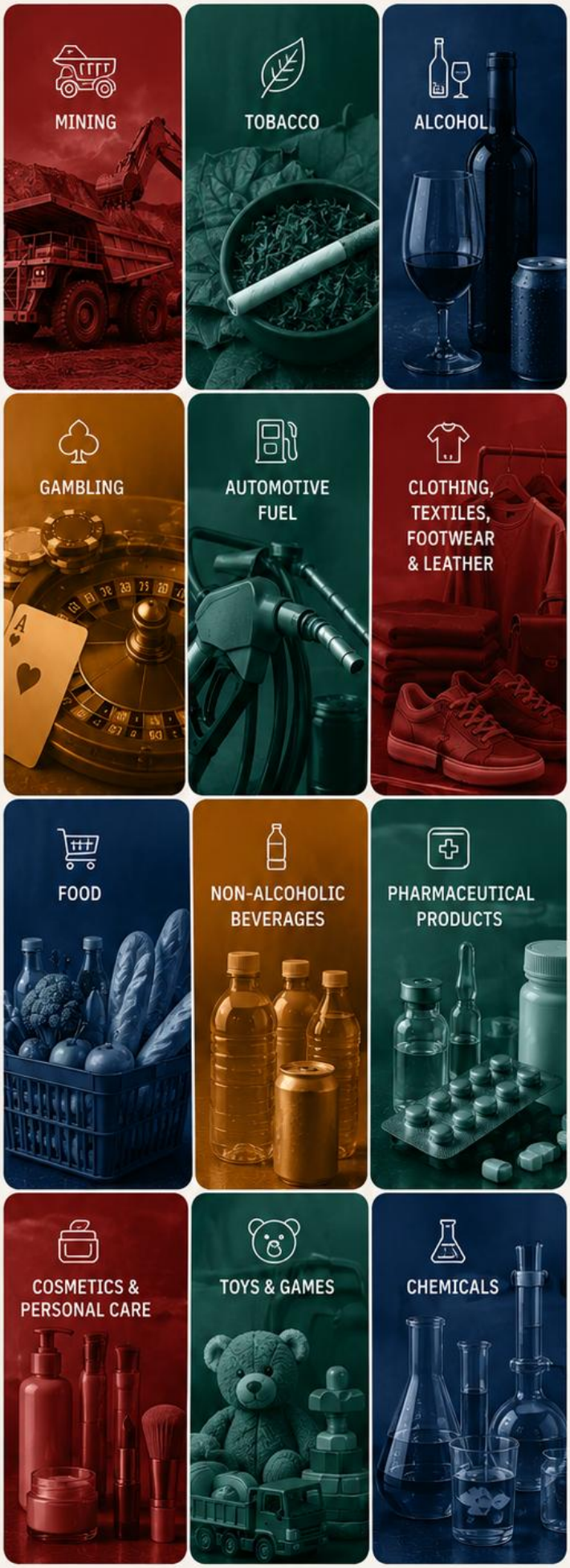
ILLICIT TRADE IN SOUTH AFRICA

ECONOMIC, FISCAL AND EMPLOYMENT IMPACT ASSESSMENT

A cross-sector assessment of the economic, fiscal and employment impacts of illicit trade across twelve priority industries.

GDP | EMPLOYMENT | GOVERNMENT REVENUE | CONSUMERS



Prepared for
Consumer Goods Council of South Africa (CGCSA)

Prepared by
econometrix
Smart data. Smart decisions.

INDEX

INTRODUCTION 3

EXECUTIVE SUMMARY 9

OPPORTUNITY COST OF ILLICIT 14

ALCOHOL 24

CHEMICALS 46

CLOTHING, TEXTILES, FOOTWEAR AND LEATHER (CTFL) 78

FOOD 106

FUEL 140

GAMBLING 175

MINING 200

NON-ALCOHOLIC BEVERAGES (NAB) 241

COSMETICS AND PERSONAL CARE (CPC) 275

PHARMACEUTICAL PRODUCTS 304

TOBACCO 332

TOYS AND GAMES 358

DETAILED METHODOLOGY AND ECONOMIC MODELLING FRAMEWORK 388

APPENDIX 415

ECONOMY-WIDE ECONOMIC IMPACT OF SELECTED SECTORS 416

01 | INTRODUCTION

Why this report matters

Illicit trade has become one of the most significant structural threats to South Africa's economy. It extends far beyond the sale of counterfeit goods or the evasion of customs duties. Across multiple sectors, illicit trade diverts economic activity away from compliant businesses, erodes the tax base, weakens industrial competitiveness, suppresses employment, exposes consumers to unsafe products, and strengthens organised criminal networks.

South Africa faces a combination of weak economic growth, persistently high unemployment, constrained public finances, rising organised criminal activity, and increasing pressure on both households and businesses. Against this backdrop, illicit trade has expanded across numerous sectors, undermining legitimate economic activity while reducing the resources available to support long-term economic development. As government seeks to stimulate growth, strengthen fiscal sustainability and rebuild state capacity, understanding the economic cost of illicit trade has become increasingly important.

Although numerous studies have examined individual forms of illicit trade, relatively few have attempted to quantify its broader economic consequences across multiple industries using a consistent analytical framework. This report addresses that gap by providing a harmonised assessment of the economic, fiscal and employment impacts of illicit trade across twelve priority sectors of the South African economy. Collectively, these sectors demonstrate that illicit trade is not simply a law-enforcement issue – it is fundamentally an economic development issue.

The assessment covers alcohol, clothing, textiles, footwear and leather, food, automotive fuel, gambling, mining, non-alcoholic beverages, chemicals, cosmetics and personal care, pharmaceutical products, tobacco, and toys and games. While each sector exhibits unique market characteristics and illicit trade mechanisms, together they illustrate the broader economic consequences of illicit activity across South Africa's productive economy.

Rather than focusing solely on the criminal economy, the report quantifies the formal economic activity currently displaced by illicit trade. It estimates the associated impacts on gross domestic product (GDP), gross value added (GVA), output, employment and government revenue. The analysis therefore provides an evidence base to support more informed policy development, enforcement prioritisation and industry engagement.

Why eliminating illicit trade matters

➔ Government

Illicit trade directly erodes government revenue through the non-payment of VAT, customs duties, excise duties, fuel levies, gambling levies, production taxes and other statutory charges.

The resulting reduction in fiscal capacity limits government's ability to fund infrastructure, healthcare, education, policing, housing, social protection and industrial development while increasing pressure on borrowing and debt-service costs.

Beyond revenue losses, illicit trade places additional demands on customs administration, border management, policing, consumer protection agencies and the criminal justice system.

Effective responses therefore require coordinated action across customs, border management, law enforcement, industrial policy and regulatory institutions rather than isolated enforcement interventions.

Business and investment

Illicit trade distorts competition by allowing non-compliant operators to avoid taxes, duties, regulatory compliance costs and product standards. Legitimate firms are therefore forced to compete against businesses operating with structurally lower costs.

The consequences include reduced profitability, weaker investment, lower industrial competitiveness, slower innovation and diminished incentives for local production.

In several sectors, industry stakeholders also report that the prevalence of counterfeiting discourages international companies from investing in or expanding in South Africa, limiting long-term market development.

Labour and employment

The effects of illicit trade extend well beyond displaced jobs.

By diverting demand away from compliant firms, illicit trade suppresses formal production, wholesale activity, logistics, retail, distribution and related business services. Lower formal-sector activity constrains employment creation, reduces wage income and limits opportunities for skills development and career progression.

When employment shifts into illicit or informal supply chains, workers are often excluded from many of the protections available in the formal economy, including compliance with labour legislation, minimum wages, collective bargaining arrangements, occupational health and safety standards, unemployment insurance, pension benefits and formal training opportunities.

Consequently, illicit trade not only reduces the number of formal jobs but also contributes to poorer working conditions, greater labour-market informality and increased worker vulnerability. Across several sectors examined in this report, employment displacement falls disproportionately on low- and semi-skilled workers.

Consumers

Consumers are often attracted by substantially lower prices without fully appreciating the broader risks associated with illicit products. Depending on the sector, illicit goods may fail mandatory safety standards, contain dangerous or inferior ingredients, bypass quality assurance and testing, provide no warranty or after-sales support, mislead consumers through counterfeit branding, or expose users to unsafe or unregulated online platforms. These risks are particularly important in sectors such as pharmaceuticals, alcohol, food, toys and games, cosmetics, fuel and gambling, where product integrity and regulatory oversight are essential.

Consumers are also affected through reduced product quality, diminished confidence in legitimate brands, narrower formal retail choice and weaker incentives for innovation and investment by compliant businesses.

Organised crime and governance

In several sectors, illicit trade is closely linked to organised criminal networks involved in customs fraud, smuggling, counterfeiting, money laundering and corruption. These networks frequently operate across multiple industries, adapting their methods in response to enforcement activity and exploiting weaknesses in border management, regulatory systems and supply chains.

As a result, illicit trade represents not only an economic challenge but also a governance and national security concern. Reducing illicit trade therefore requires coordinated interventions that strengthen institutional capacity, improve inter-agency cooperation and increase the risks associated with organised criminal activity.

What is illicit trade?

There is no universally accepted definition of illicit trade. However, there is broad agreement that it encompasses the production, importation, distribution, sale or consumption of goods in contravention of customs legislation, tax laws, regulatory requirements, intellectual property rights, product safety standards or criminal legislation.

Consistent with the broader definition adopted by the NEDLAC Illicit Economy and Illegal Imports Task Team, this report defines illicit trade as:

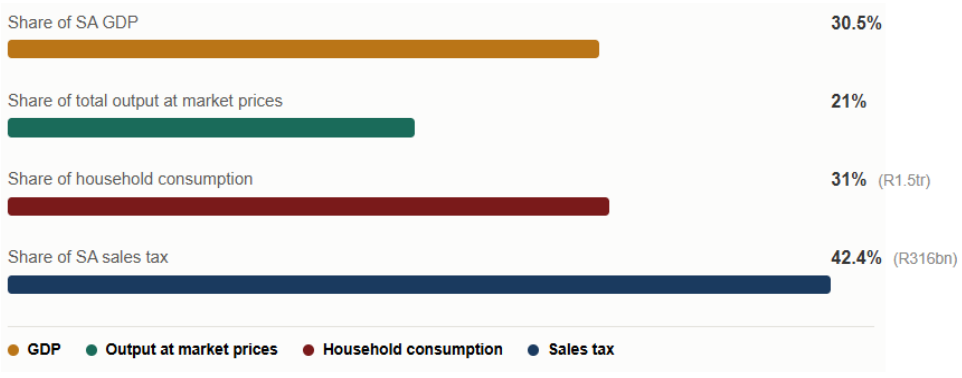
Economic activities involving the production, importation, exportation, movement, distribution or sale of goods that contravene customs legislation, tax obligations, regulatory requirements, intellectual property rights, health and safety standards, environmental legislation or criminal law, thereby undermining legitimate economic activity and facilitating organised criminal networks.

Within this report, illicit trade includes, where relevant:

- Counterfeit goods;
- Smuggling;
- Under-valuation and customs fraud;
- Tariff misclassification;
- Origin fraud;
- Illegal manufacturing;
- Excise fraud;
- Illegal gambling;
- Trade-based money laundering; and
- Other forms of regulatory and tax evasion.

Sectors covered in this report

This assessment covers only twelve sectors identified as being particularly vulnerable to illicit trade. While these sectors account for a substantial share of the economic and fiscal impacts associated with illicit markets, illicit trade also affects many other industries that fall outside the scope of this study.

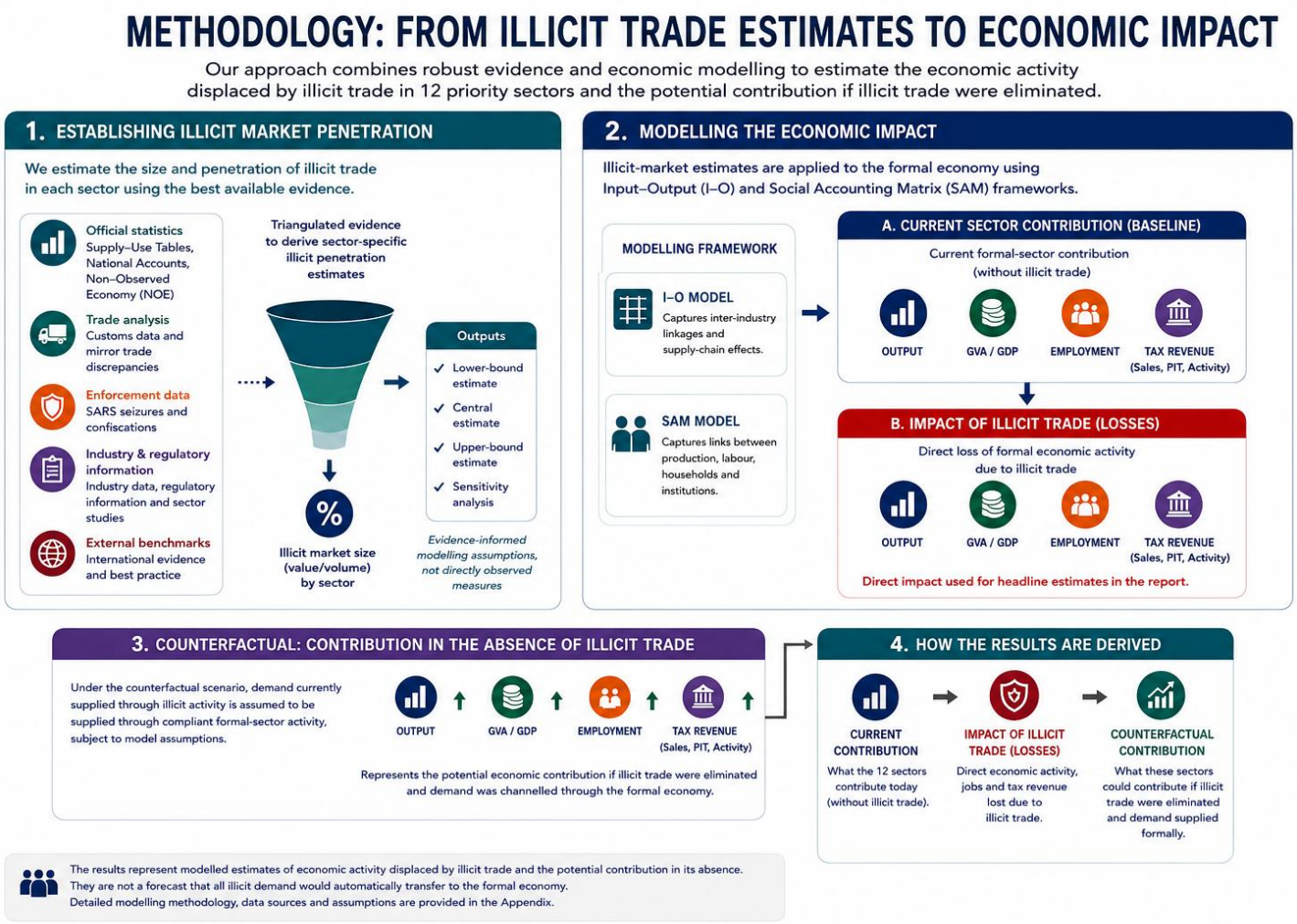


Although the twelve sectors account for only around 30.5% of South Africa's gross domestic product (GDP), they represent a disproportionately large share of consumer spending and government tax revenues. Together, they account for approximately 31% of total household consumption (around R1.5 trillion), 21% of total output at basic prices, and over 42% of South Africa's *sales* taxes (more than R316 billion).

The estimates presented in this report should therefore be regarded as conservative, and the total economy-wide costs are likely to be considerably higher.

Analytical approach/methodology

The methodology comprises two linked stages: (1) establishing the scale of illicit trade in each sector; and (2) modelling its economic impact and the potential contribution of the affected sectors in the absence of illicit trade.



1. Establishing illicit-market penetration by sector

Measuring illicit trade is inherently difficult because illicit markets are largely hidden from official statistics. The report therefore adopts a triangulation approach, combining Statistics South Africa Supply and Use Tables (SUT), National Accounts and Non-Observed Economy (NOE) estimates with customs and mirror-trade analysis, SARS seizure data, industry and regulatory information, and sector-specific research.

For sectors with established illicit-trade research, such as tobacco and alcohol, existing studies provide an important reference point. Where comparable sector-specific estimates are unavailable, bespoke illicit-penetration estimates are developed by triangulating available indicators of illicit activity.

These estimates represent evidence-informed modelling assumptions rather than directly observed measures of the illicit market. Lower-bound, central and sensitivity estimates are used where appropriate to reflect the uncertainty associated with measuring hidden markets.

The resulting sector-specific illicit-market estimates provide the starting point for estimating the economic activity displaced by illicit trade.

2. Modelling the economic impact

The estimated illicit-market penetration is incorporated into Econometrix's Input–Output (I–O) and Social Accounting Matrix (SAM) modelling frameworks. The models use the structure of the South African economy to estimate the direct economic contribution of the affected sectors in terms of output, GVA/GDP, employment and tax revenue, including relevant sales taxes, personal income tax and activity-related taxes.

The modelling then estimates the economic activity displaced by illicit trade. This includes the associated losses in formal output, GVA/GDP, employment and government tax revenue arising from the portion of market activity captured by illicit trade. The I–O/SAM framework also allows the broader economic linkages associated with the affected sectors to be assessed through supply-chain, income and household expenditure effects.

Counterfactual: contribution in the absence of illicit trade

The analysis also develops a counterfactual scenario to estimate the potential economic contribution of the sectors in the absence of illicit trade. This is based on the assumption that the demand currently supplied by illicit activity would, under the counterfactual, be supplied through compliant formal-sector activity.

The counterfactual therefore provides an estimate of the potential output, GVA/GDP, employment and tax contribution that could be supported if illicit-market activity were eliminated, subject to the assumptions of the model. It should not be interpreted as a forecast that all illicit demand would automatically or immediately transfer to the formal economy. This distinction allows the report to present three related measures:

- **Current formal-sector contribution** – the economic, employment and fiscal contribution generated by the sectors under current conditions;
- **Economic impact of illicit trade** – the estimated formal economic activity, employment and tax revenue displaced by illicit activity; and
- **Counterfactual contribution in the absence of illicit trade** – the potential contribution if the illicit-market component were removed and the associated demand were channelled through compliant formal activity.

The detailed I–O/SAM modelling methodology, assumptions and calculations are presented in the Appendix.

From Evidence to Targeted Action

- Although the magnitude and characteristics of illicit trade differ across sectors, the findings consistently demonstrate that stronger compliance, more effective enforcement and improved regulatory coordination have the potential to generate substantial economic and fiscal benefits.
- Even partial reductions in illicit trade would support higher economic growth, stronger public finances, increased formal employment and a more competitive business environment.
- The estimates presented in this report provide a transparent and consistent evidence base to inform policy development, enforcement prioritisation and future research.

- This study was designed to quantify the **scale and economic consequences of illicit trade across twelve priority sectors**, rather than to develop a detailed enforcement strategy. However, the findings **provide an important evidence base for identifying where enforcement efforts could have the greatest economic and fiscal impact**.
- The analysis identifies substantial differences across sectors in the **scale of illicit markets, penetration rates, fiscal losses, economic activity displaced and employment impacts**. These differences suggest that a uniform enforcement approach is unlikely to be optimal.
- Instead, the findings can help inform a more **risk-based and targeted enforcement framework**, directing attention towards sectors, products, supply chains and points of entry where illicit activity is most significant or where enforcement could generate the greatest return.
- The sector analysis also provides insight into the **nature of illicit activity and the mechanisms through which it occurs** – including smuggling, customs misdeclaration and undervaluation, counterfeit and unregistered products, diversion, unlicensed production and non-compliant distribution. This can help inform the design of appropriate enforcement responses, including **border controls, customs risk profiling, market surveillance, post-clearance verification, licensing and regulatory compliance, intelligence-led investigations and inter-agency information sharing**.
- Importantly, the findings should not be interpreted as prescribing specific enforcement actions or resource allocations.

  Rather, they provide a **quantitative evidence base from which government, regulators and industry can develop and prioritise more targeted enforcement strategies and tactics**.

Why Reducing Illicit Trade Matters

- Illicit trade is not simply a customs, taxation or law-enforcement issue. For South Africa, reducing illicit trade represents far more than an opportunity to recover lost tax revenue. It is an opportunity to strengthen economic growth, improve fiscal sustainability, support legitimate businesses, protect formal employment, enhance consumer safety and expand the resources available to invest in infrastructure, education, healthcare, policing and other national development priorities.
- Ultimately, the choice is not simply between tolerating or combating illicit trade. It is a choice between allowing scarce economic resources to continue flowing into the shadow economy, or redirecting them towards productive investment, sustainable employment, stronger public finances and inclusive economic development.
- The findings of this report demonstrate that tackling illicit trade is not merely an enforcement priority – **it is an economic imperative for South Africa's long-term prosperity**.

Interactive dashboard

Explore the detailed results, sector rankings and methodology through the accompanying interactive dashboard; click on this link Interactive Illicit Trade Dashboard.

THE ECONOMIC COST OF ILLICIT TRADE IN SOUTH AFRICA



A cross-sector assessment of the economic, fiscal and employment impacts across eleven priority sectors

AT A GLANCE

12	R280bn	R193bn	R126bn	87,500	R68bn
Sectors assessed	Estimated illicit market	Formal production displaced	GDP displaced	Direct employment displaced	Annual tax losses



EXECUTIVE MESSAGE

Illicit trade diverts economic activity away from compliant businesses, erodes government revenue, suppresses employment, weakens industrial competitiveness and exposes consumers to unsafe products. Collectively, the analysis demonstrates that illicit trade is not simply a law-enforcement issue – it is fundamentally an economic development issue.

KEY FINDINGS

1. **R68 billion in tax revenue is lost every year**
   Illicit trade reduces government revenue, limiting fiscal capacity for infrastructure, education, healthcare, policing and social protection.

2. **R193 billion in formal production is displaced**
   Illicit trade diverts demand away from compliant businesses, reducing formal output, investment and competitiveness.

3. **R126 billion in GDP is displaced – but the wider economic impact extends further**
   Illicit trade suppresses formal production and value added across the economy. Wider effects through supply chains, investment and household spending could make the total economic impact larger than the direct GDP estimate.

4. **87,500 direct jobs are displaced**
   Employment losses fall disproportionately on low- and semi-skilled workers, while informal activity offers weaker employment protections.

5. **Illicit trade weakens the broader economy**
   Illicit trade weakens legitimate businesses, investment and competitiveness, undermining the productive capacity needed for long-term growth.

6. **Complex supply chains increase vulnerability**
   Multiple distribution stages and significant import exposure create opportunities for smuggling, customs fraud and counterfeit infiltration.

7. **Illicit trade strengthens organised criminal networks**
   Smuggling, fraud, counterfeiting, money laundering and corruption can exploit weaknesses across borders, regulation and supply chains.

8. **Reducing illicit trade supports economic growth**
   Recovering formal economic activity can support production, investment and jobs – positioning illicit-trade reduction as a lever for growth, not only law enforcement.

HOW TO READ THIS REPORT

The figures presented in this report represent estimates of formal economic activity currently displaced by illicit trade under a transparent and conservative analytical framework.

They should not be interpreted as forecasts that the entire illicit market would immediately convert into formal economic activity if illicit trade were eliminated. Rather, they illustrate the potential scale of economic activity, employment and government revenue currently suppressed.

WHY THIS REPORT MATTERS

- Stronger fiscal capacity
- Higher investment and productivity
- More competitive businesses
- Better public services
- More and better jobs
- Stronger governance and institutions
- Safer products and consumers
- A more inclusive and growing South Africa

METHODOLOGY AT A GLANCE

1. **TRIANGULATE**
   Sector-specific illicit-market estimates are triangulated from multiple evidence sources, including official statistics, trade data, enforcement information, industry evidence and international benchmarks.

2. **MODEL**
   Estimates are applied to formal economic activity using Input–Output (I–O) and Social Accounting Matrix (SAM) frameworks to quantify economic impacts.

3. **QUANTIFY**
   Displaced production, GDP, employment and tax revenue are estimated to reflect the direct economic impact of illicit trade.

Headline estimates focus on direct impacts and therefore exclude the more uncertain wider supply-chain and household-spending effects.

CROSS-SECTOR ECONOMIC IMPACT

Where the economic impact of illicit trade is concentrated

Illicit trade affects sectors differently, with the scale of impact determined by market size, illicit penetration, tax intensity and the extent of domestic economic activity displaced.



WHERE THE IMPACT IS CONCENTRATED: TOP RANKINGS

LARGEST ILLICIT MARKETS

R BILLION (CURRENT PRICES)

1	Mining	R60.0bn
2	Gambling	R55.1bn
3	Tobacco	R45.0bn

58%

Top 3 sectors account for 58% of the total illicit market value.

LARGEST FISCAL LOSSES

R BILLION (CURRENT PRICES)

1	Tobacco	R31.4bn
2	Alcohol	R16.9bn
3	Gambling	R7.7bn

83%

Top 3 sectors account for 83% of total fiscal losses.

LARGEST GDP DISPLACEMENT

R BILLION (CURRENT PRICES)

1	Tobacco	R35.9bn
2	Mining	R25.0bn
3	Gambling	R24.6bn

68%

Top 3 sectors account for 68% of total GDP displacement.

DIRECT IMPACT OF ILLICIT TRADE BY SECTOR (2024)

SECTOR	ILLICIT MARKET VALUE (R BILLION)	R BILLION (CURRENT PRICES) FISCAL LOSS	R BILLION (CURRENT PRICES) GDP DISPLACEMENT	JOBS DISPLACED	PENETRATION RATE (%)	FISCAL LOSS (%)	SHARE OF TOTAL IMPACT GDP DISPLACEMENT (%)	SHARE OF TOTAL IMPACT JOBS DISPLACED (%)	SHARE OF TOTAL IMPACT ILLICIT MARKET (%)
Mining	60.0	1.9	25.0	21 621	7.8%	2.8%	2.4%	25.3%	22.0%
Gambling	55.1	7.7	24.6	31 259	62.3%	11.4%	24.0%	36.5%	20.2%
Tobacco	45.0	31.4	35.9	2 330	66.0%	46.5%	35.0%	2.7%	16.5%
Alcohol	39.8	16.9	23.4	6 056	7.0%	25.0%	22.8%	7.1%	14.6%
Food	26.0	1.5	4.2	7 759	5.5%	2.2%	4.1%	9.1%	9.5%
Fuel	15.3	4.4	5.4	3 013	6.0%	6.5%	9.1%	3.5%	5.5%
Clothing, Textiles, Footwear & Leather	20.4	2.5	3.7	8 622	10.6%	3.7%	2.9%	9.9%	7.3%
Chemicals	6.8	0.2	1.4	1 810	3.0%	0.3%	1.1%	2.1%	2.4%
Pharmaceutical Products	4.3	0.4	1.1	1 138	4.6%	0.6%	0.9%	1.3%	1.3%
Non-Alcoholic Beverages	2.5	0.3	0.7	860	4.7%	0.4%	0.5%	1.0%	0.9%
Toys & Games	1.9	0.3	0.5	2 275	23.0%	0.5%	0.4%	2.6%	0.7%
Cosmetics & Personal Care	2.3	0.3	0.6	616	4.5%	0.3%	0.5%	0.7%	0.8%
TOTAL	**279.3**	**68.0**	**126.0**	**87 500**	–	**100%**	**100%**	**100%**	**100%**

The 12 sectors contribute **31%** to SA's GDP and **42%** to SA's sales tax; **31%** to SA's household consumption (2024).

KEY CROSS-SECTOR INSIGHTS

1 STRUCTURAL FACTORS SHAPE VULNERABILITY TO ILLICIT TRADE

High product taxation, strong consumer demand, import exposure and complex supply chains can increase the incentives and opportunities for smuggling, under-declaration, counterfeiting and other illicit activity.

2 THE SCALE OF IMPACT DEPENDS ON ECONOMIC STRUCTURE

The economic impact depends on sector size, tax intensity and extent of formal economic activity displaced.

3 FISCAL IMPACT VARIES WITH TAX EXPOSURE

The fiscal cost differs substantially across sectors, reflecting differences in the taxes associated with formal economic activity.

4 DIFFERENT SECTORS REQUIRE DIFFERENT RESPONSES

The nature of illicit activity varies across sectors – from smuggling and tax evasion to counterfeit products, unlicensed production and non-compliant distribution – requiring targeted enforcement approaches.

DIRECT EMPLOYMENT IMPACT

1	Gambling	31,259
2	Mining	21,621
3	CTFL	8,622

70% of direct jobs displaced

The 87,500 estimate captures direct jobs displaced. The total jobs impact could be larger once effects on suppliers and other connected sectors are included.

WHY THE EMPLOYMENT IMPACT MATTERS

If the 87,500 jobs displaced by illicit trade were recovered and filled by currently unemployed workers, South Africa's official unemployment rate could theoretically decline from 31.9% to ~31.5% (2024).

UNEMPLOYMENT RATE (Official, expanded) Q4 2024	Current rate:	Potential rate:
	31.9% ↓	~31.5%

Improvement of ~0.4 percentage points

WHAT DRIVES ILLICIT TRADE?

Common demand drivers and supply enablers across sectors



While the nature of illicit trade varies by sector, common forces on both the demand and supply side create the conditions that allow it to thrive.

OVERARCHING DEMAND DRIVERS

PRICE & AFFORDABILITY

Lower prices and affordability pressures are prominent across many sectors, with illicit operators avoiding duties, VAT, excise and regulatory compliance costs.

INFORMAL & DIGITAL ACCESS

Informal retail, spaza shops, street vendors, social media, e-commerce and digital platforms make illicit products readily accessible, often alongside legitimate channels.

BRAND ASPIRATION

Counterfeit products provide lower-cost access to recognised brands and products that may otherwise be unaffordable.

NORMALISATION OF ILLICIT PURCHASING

Repeated exposure through everyday consumption, informal retail and digital channels can reduce consumer deterrence and make illicit purchasing part of routine behaviour.

ECONOMIC PRESSURE

Unemployment, poverty, constrained household budgets and cost-of-living pressures increase vulnerability and drive both consumer demand and participation in illicit activity.

OVERARCHING SUPPLY ENABLERS

TAX & DUTY DIFFERENTIALS

Differences in duties, VAT, excise and other taxes can simultaneously make illicit goods cheaper to buy and more profitable to supply.

The same tax wedge operates on both sides of the market.

FRAGMENTED REGULATION & ENFORCEMENT

Split institutional responsibilities, coordination gaps and uneven enforcement across agencies and jurisdictions create opportunities for illicit operators to exploit weaknesses across the value chain.

DETECTION & TRACEABILITY GAPS

Weak product registration, testing, monitoring, track-and-trace and detection systems make it harder to identify illicit products, verify authenticity and reconcile legitimate supply.

IMPORT DEPENDENCE & COMPLEX SUPPLY CHAINS

Cross-border sourcing, transshipment, re-export routes and complex supply chains create opportunities for undervaluation, misdeclaration, smuggling, origin concealment and customs fraud.

WHY THE PATTERN DIFFERS BY SECTOR

The overarching drivers are common, but their relative importance and the mechanisms enabling illicit trade vary by sector. This is why tailored responses are essential.

CONSUMER-DRIVEN MARKETS

Price, affordability, brand aspiration and normalisation can be particularly important where consumers have readily available formal and informal alternatives.

Examples:
- Alcohol
- Tobacco
- CTFL
- Toys & Games
- Food
- NAB
- CPC

DIGITAL & REGULATORY GAPS

Digital accessibility, regulatory gaps and fragmented oversight can create distinctive opportunities for illicit activity.

Examples:
- Gambling
- Tobacco
- Pharma
- Chemicals

SUPPLY-CHAIN & RESOURCE-BASED RISKS

Complex imports, cross-border routes, physical infrastructure and organised networks create different vulnerabilities.

Examples:
- Mining
- Chemicals
- CTFL
- Pharma
- Toys & Games
- Fuel

Addressing illicit trade requires tackling both the tax/duty differential and the enablers that allow illicit supply chains to operate — while recognising the unique drivers and vulnerabilities in different sectors.

Opportunity Cost - Public Service Delivery

What could ~R68 billion in additional annual revenue support?

R68bn

Estimated annual tax revenue lost through illicit trade

FISCAL SIGNIFICANCE

20.4% of the national budget deficit

or

19.9% of annual debt-service costs

or

2.9% of total consolidated government spending

Every year, illicit trade diverts an estimated R68 billion from the fiscus.

These lost revenues reduce government's ability to:

- fund public services
- invest in infrastructure
- strengthen policing and border security
- expand social protection
- improve education and healthcare
- reduce borrowing requirements

This estimated annual revenue loss spans **foregone VAT, excise duties, fuel levies,** customs duties, gambling levies, production taxes and other taxes linked to formal economic activity.

COMPONENTS OF THE ESTIMATED FISCAL LOSS

- **VAT** (Goods & Services)
- **EXCISE DUTIES** (Alcohol, Tobacco, Fuel & Other Products)
- **CUSTOMS DUTIES** (Imports)
- **GAMBLING LEVIES**
- **PRODUCTION TAXES & OTHER TAXES** (Including Fuel Levies, Environmental Levies, etc.)

HOW R68BN COULD STRENGTHEN PUBLIC SERVICES EVERY YEAR

ESTIMATED ANNUAL TAX LOSSES

~R68bn

Opportunity for additional government revenue

or

EQUIVALENT TO

21%

increase in basic education expenditure

or

EQUIVALENT TO

25%

increase in public healthcare expenditure

or

EQUIVALENT TO

54%

increase in police services expenditure

THEORETICAL INCREASE IN PUBLIC-SERVICE CAPACITY

SECTOR	ADDITIONAL STAFF (POTENTIALLY FUNDED)	INCREASE RELATIVE TO CURRENT WORKFORCE
TEACHERS	144,782	33.7%
HEALTHCARE WORKERS	122,750	42.3%
POLICE OFFICERS	171,106	92%

Figures represent additional staffing that could theoretically be funded through recovered revenue.

WHY IT MATTERS

Even partial recovery through stronger enforcement could help fund:

- Strengthen investment in education
- Improve healthcare outcomes
- Enhance policing and community safety
- Expand infrastructure investment
- Increase housing and social protection support
- Create greater fiscal space for economic growth

Every rand recovered from illicit trade expands government's capacity to invest in public services rather than additional borrowing.

Source: National Treasury Budget Review 2024, Medium-Term Budget Policy Statement (MTBPS) 2024, Stats SA; Econometrix own calculations.
Note: Figures may not add due to rounding.

Opportunity cost for housing, tertiary education, student funding and old-age social grants

What could ~R68 billion in additional annual revenue support?

ESTIMATED ANNUAL TAX LOSSES	EQUIVALENT TO	EQUIVALENT TO	EQUIVALENT TO
~R68bn	259,248	615,982	2.6m
Opportunity for additional government revenue	subsidised (RDP) houses	tertiary education bursaries / student funding for one year	annual old-age social grants

HOUSING DELIVERY

Based on an estimated average subsidised housing cost of approximately **R261,000** per unit, the estimated illicit-trade-related tax losses illustrate the scale of resources that could potentially be directed towards addressing South Africa's housing backlog.

TERTIARY EDUCATION & STUDENT FUNDING

Using an indicative average annual bursary and student-support cost of approximately **R110,000** per student, the estimated tax losses illustrate the potential to expand access to tertiary education and student funding.

OLD-AGE SOCIAL GRANTS

Using the 2024 Older Persons Grant value of approximately **R2,180** per month, the estimated tax losses illustrate the potential scale of additional social protection that could be supported.

WHY IT MATTERS

Even partial recovery through stronger enforcement could help fund:

- HOUSING
- EDUCATION
- SOCIAL PROTECTION
- HUMAN CAPITAL DEVELOPMENT
- ECONOMIC GROWTH & INCLUSION
- POVERTY ALLEVIATION & INCOME SUPPORT

Every rand recovered from illicit trade **expands government's capacity to invest in people, communities and South Africa's future.**

KEY INSIGHT: FROM ILLICIT TRADE TO ECONOMIC OPPORTUNITY

1 STRONGER ENFORCEMENT CAN DELIVER ECONOMIC GAINS

Better compliance, targeted enforcement and stronger regulatory coordination can recover economic activity and fiscal revenue currently lost to illicit trade.

2 THE BENEFITS EXTEND BEYOND TAX REVENUE

Reducing illicit trade can strengthen investment, productive capacity, business competitiveness and consumer protection, while reducing the space for organised illicit networks.

3 AN ECONOMIC IMPERATIVE FOR SOUTH AFRICA

Illicit trade is not simply a customs, tax or law-enforcement issue – tackling it is an opportunity to strengthen South Africa's long-term economic and fiscal sustainability.

Source: National Treasury Budget Review 2024, Medium-Term Budget Policy Statement (MTBPS) 2024, Stats SA; Econometrix own calculations.

Note: Figures may not add due to rounding.

Potential Impact on Public Infrastructure and Capital Investment

Lost tax revenue from illicit trade represents a forgone opportunity to invest in productive assets and infrastructure that support long-term economic growth and improved service delivery.

ESTIMATED ANNUAL TAX LOSSES

~R68bn

Lost revenue due to illicit trade

EQUIVALENT TO

37%

of total government capital expenditure (2024)

COULD INCREASE GOVERNMENT CAPITAL SPENDING TO

3.4%

of GDP (closer to historic average periods)

STRONGER INVESTMENT, STRONGER SOUTH AFRICA

- ✓ Better infrastructure
- ✓ Improved services
- ✓ Higher productivity
- ✓ Inclusive growth

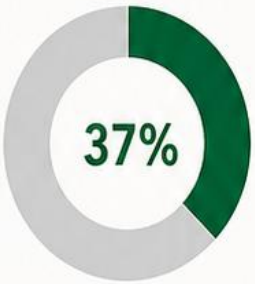
Government capital investment in context

Total government gross fixed capital formation (GFCF) amounted to R183.8 billion in 2024.

17.2% of total GFCF

2.5% of GDP

Down from **3.86%** of GDP in 2008



The estimated annual tax losses of ~R68 billion are equivalent to approximately **37%** of total government capital expenditure.

If these revenues were available, government capital spending could increase to **3.4%** of GDP.

Gross fixed capital formation by Government	2024 (Rm)	Theoretical increase (Rm)
Residential buildings	4 553	+1 678
Non-residential buildings	37 966	+13 993
Construction works	78 814	+29 047
Transport equipment	10 292	+3 793
Computers and related equipment	7 521	+2 772
Machinery and other equipment	20 242	+7 460
Research and development	21 422	+7 895
Computer software	3 009	+1 109
Other	30	+11
TOTAL	183 848	+67 758

What additional investment could support each year?

R29 billion
more in construction works

Roads, bridges, water infrastructure, electricity networks and other public infrastructure projects.

R14 billion
more in non-residential buildings

Schools, hospitals, clinics, police stations and administrative facilities.

R3.8 billion
more in transport equipment

Vehicles and specialised equipment for police, emergency response, municipal services and other government operations.

R7.9 billion
more in research and development

Strengthening innovation, scientific capabilities, and long-term economic competitiveness.

R7.4 billion
more in machinery and other equipment

Improving the efficiency and effectiveness of public institutions and service delivery.

A stronger future

More investment today means better infrastructure, stronger public services and higher productivity for tomorrow.

KEY INSIGHT: FROM ILLICIT TRADE TO ECONOMIC OPPORTUNITY

- ✓ Stronger enforcement can deliver economic gains through higher activity and fiscal revenue.
- ✓ The benefits extend beyond tax revenue, strengthening investment, productive capacity, business competitiveness and consumer protection.
- ✓ Tackling illicit trade is an economic imperative for South Africa's long-term prosperity.

ⓘ Source: Econometrix own calculations, based on National Treasury Budget Review 2024.

WHY ELIMINATING ILLICIT TRADE MATTERS

The economic costs extend across government, business, workers, consumers and society

Illicit trade is not simply a law-enforcement challenge – it represents a material economic and fiscal opportunity cost. The scale and composition of these impacts provide a basis for more targeted enforcement that focuses on where illicit activity is concentrated and where intervention can deliver the greatest economic and fiscal returns.

THE IMPACT ACROSS STAKEHOLDERS

GOVERNMENT

Lost revenue. Greater pressure.

Illicit trade erodes tax and customs revenue and increases pressure on border management, policing, regulation and the criminal justice system.

WHAT IT MEANS:

Less fiscal capacity for infrastructure, healthcare, education, housing and social protection.

BUSINESS & INVESTMENT

Unfair competition. Lower investment.

Non-compliant operators avoid taxes, duties, regulatory costs and product standards, putting legitimate businesses at a structural disadvantage.

WHAT IT MEANS:

Lower profitability, weaker investment and reduced competitiveness.

LABOUR & EMPLOYMENT

Fewer formal jobs. Greater vulnerability.

Illicit trade diverts activity away from formal production, distribution and retail, suppressing employment, wages and skills development.

WHAT IT MEANS:

Greater informality and weaker employment protections, particularly for low- and semi-skilled workers.

CONSUMERS

Lower prices can carry higher risks.

illicit products may bypass safety standards, quality controls and regulatory requirements, depending on the sector.

WHAT IT MEANS:

Greater exposure to unsafe products, weaker consumer protection and reduced confidence in legitimate markets.

ORGANISED CRIME & GOVERNANCE

Illicit markets can strengthen criminal networks.

Smuggling, customs fraud, counterfeiting, money laundering and corruption can operate across multiple sectors and exploit weaknesses in borders, regulation and supply chains.

WHAT IT MEANS:

Illicit trade is also a governance and institutional-capacity challenge.

FROM EVIDENCE TO TARGETED ACTION

The findings provide an evidence base for moving from broad enforcement towards more targeted, risk-based interventions.

FOCUS RESOURCES

Target sectors, products and supply chains where economic and fiscal losses are greatest.

TARGET ILLICIT ACTIVITY

Identify where illicit trade is concentrated and how it enters and moves through the value chain.

STRENGTHEN CONTROLS

Improve compliance, oversight and intervention at key points of entry and distribution.

IMPROVE COORDINATION

Strengthen intelligence-sharing and cooperation across agencies and regulators.

MEASURE THE RETURN

Prioritise interventions that can deliver the greatest economic and fiscal impact.

The findings provide a quantitative evidence base for developing more **targeted, risk-based** enforcement strategies that deliver the greatest economic and fiscal returns for South Africa.

CHAPTER

03

Opportunity Cost of Illicit Trade

The fiscal cost of illicit markets to South Africa



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

BACKGROUND

The economic cost of illicit trade extends beyond the direct loss of government revenue, reduced formal-sector activity, lower economic growth, and reduced industrial development.

> Every rand diverted into illicit markets is a rand that is unavailable to fund public services, strengthen infrastructure, expand social protection, improve healthcare and education, enhance policing and border security, or reduce the government's borrowing requirements.

The analysis presented in the preceding chapters estimates that illicit trade across the twelve sectors examined results in approximately R68 billion in lost government revenue each year.

This includes foregone VAT, excise duties, fuel levies, customs duties, gambling levies, production taxes and other taxes associated with formal economic activity. Collectively, these losses are equivalent to approximately ~1% of South Africa's GDP and represent a material erosion of the country's fiscal capacity.

Within South Africa's constrained fiscal environment, characterised by persistent budget deficits, rising debt-service costs and growing demands on public expenditure, these foregone revenues represent a significant opportunity cost. While it is unrealistic to assume that all illicit trade could be eliminated or that the full amount could be recovered immediately, the estimates indicate the scale of public resources currently lost to illicit economic activity.

Rather than focusing solely on the revenue foregone, this chapter considers what these resources could potentially finance if a meaningful proportion of illicit trade were redirected towards the formal economy.

By comparing the estimated annual fiscal losses with selected areas of government expenditure and public service delivery, the analysis illustrates the broader developmental consequences of illicit trade.

The comparisons draw on information published by National Treasury, Statistics South Africa and other official government sources. They are intended to illustrate the order of magnitude of the opportunity cost rather than provide precise estimates of recoverable expenditure.

They demonstrate that illicit trade is not only a law-enforcement or compliance challenge, but also a fiscal and economic development issue that affects government's capacity to invest in public services, infrastructure and long-term economic growth.

OPPORTUNITY OF ADDITIONAL GOVERNMENT REVENUE

Fiscal context

- The estimated annual tax losses of approximately R68 billion represent a material fiscal amount within South Africa's national budget framework.
- Relative to consolidated government expenditure of approximately R2.4 trillion in 2024, these **losses are equivalent to around 2.9% of total government spending**.

  While this appears modest relative to the overall budget, the scale becomes far more significant when compared with key fiscal pressures facing the South African state.
- **Debt-service costs** have become one of the fastest-growing expenditure items in the national budget, reducing the resources available for service delivery and economic development.
- Based on the 2024 National Treasury Budget Review,[1] the estimated annual revenue losses from illicit trade are equivalent to approximately:
  - **19.9%** of annual debt-service costs; or
  - **20.4**% of the national budget deficit; or
  - **1.2%** of total government debt.

Table 1: Opportunity cost of illicit trade relative to key National Budget categories

Category	Value	Lost revenue as a percentage
Total consolidated spending	R2,4 trillion	2.9%
Debt-service costs	R346 billion	19.9%
Budget deficit	R332 billion	20.4%
Total government debt	**R5 5 trillion**	**1.2%**

Source: National Treasury

- These comparisons illustrate the **fiscal significance of illicit trade**. Even a partial recovery of the estimated revenue losses through improved enforcement and higher compliance would strengthen government's fiscal position, reduce borrowing requirements and expand the resources available for public investment and service delivery.
- Rather than merely representing a loss of tax revenue, illicit trade reduces government's fiscal capacity to invest in infrastructure, healthcare, education, policing, social protection and industrial development.
- In a fiscally constrained environment, these foregone revenues also limit government's ability to reduce borrowing, contain debt-service costs and create the fiscal space required to support long-term economic growth.
- In this context, illicit trade not only weakens formal economic activity, but may also undermine the state's broader developmental and redistributive capacity.

[1] *https://www.treasury.gov.za/documents/national%20budget/2024/review/FullBR.pdf*

Opportunity Cost for Education, Healthcare and Policing

The fiscal implications of illicit trade extend beyond the loss of government revenue. They also represent public services that cannot be funded, infrastructure that cannot be built, and capacity that cannot be expanded. While the estimated annual tax losses of approximately R68 billion would not be fully recoverable in practice, the figures provide a useful illustration of the scale of resources currently diverted from the fiscus.

To demonstrate this opportunity cost, the estimated revenue losses were compared with selected areas of public expenditure using National Treasury Budget Review and Medium-Term Budget Policy Statement (MTBPS) data. The analysis estimates the additional number of public-sector employees that an equivalent amount of revenue could theoretically support.

Education



Education remains one of the largest areas of government expenditure and is fundamental to South Africa's long-term economic growth, productivity, skills formation, and labour market participation and social mobility.

Using headcounts by sector and public-service unit cost trends from the NT's MTBPS, the average annual cost of the 430,000 public-sector teachers is estimated at approximately R468,000 per year (2023 MTBPS figure)[2] and R562,558 (derived from the 2024/25 NT Budget).

The Consolidated Spending By Function And Economic Classification of the 2024/25 NT Budget also shows that R241,9 billion was allocated towards education and a total amount of R324.5 billion towards basic education.

Based on these NT compensation benchmarks, the estimated annual tax losses associated with illicit trade are **equivalent to the employment cost of approximately 144,782 additional teachers** – an increase of approximately 33.7% relative to the current public-school teaching workforce.

The additional revenue from **illicit trade-related tax losses could increase the total consolidated spending for basic education by 20.9%.**

Such an increase in teaching capacity could contribute towards lower learner-teacher ratios, improved educational outcomes, expanded access to quality education and better support for under-resourced schools, particularly in lower-income communities.

Healthcare



South Africa's public healthcare system continues to face significant pressures arising from population growth, staffing shortages, infrastructure constraints, increasing demand for healthcare services, and broader fiscal limitations.

Based on indicative public-sector compensation levels, the average annual employment cost of the 290,000 professional healthcare workers is estimated at R552,000 per year (using the 2023 MTBPS) and R602,069 (derived from the 2024/25 NT Budget).

Using these NT compensation benchmarks, the estimated annual **tax losses are equivalent to the employment cost of approximately 122,750 additional professional healthcare workers**, representing an increase of

[2] *2023 MTBPS Compensation and Employment Data https://www.treasury.gov.za/documents/mtbps/2023/mtbps/Annexure%20B.pdf*

approximately **42.3% relative to the current workforce**. Alternatively, the **additional revenue would increase consolidated public healthcare expenditure by approximately 24.9%.**

Such an expansion in healthcare staffing could materially improve healthcare access, reduce patient-to-nurse/doctor ratios, expand primary healthcare services, and strengthen provincial healthcare systems facing staffing shortages. The comparison further highlights the broader social opportunity cost associated with illicit trade.

Additional healthcare capacity could improve patient outcomes, reduce waiting times, strengthen primary healthcare services and enhance service delivery across provincial health systems.

Policing and law enforcement



Illicit trade is closely associated with organised crime, smuggling, corruption, tax evasion and broader criminal activity. Consequently, the fiscal losses resulting from illicit trade also reduce government's capacity to combat these activities.

Based on current public-sector compensation benchmarks (of approximately R396,000 (2023 MTBPS) to R538,172 (derived from the 2024/25 NT Budget) per police officer annually), the estimated annual **tax losses are equivalent to the employment cost of approximately 171,106 additional police officers**, representing a theoretical **increase of approximately 92%** relative to the current SAPS workforce. Alternatively, the additional revenue would **increase police expenditure by approximately 54.2%**.

Greater policing capacity could strengthen border management, customs enforcement, organised crime investigations and broader law-enforcement capability, reinforcing government's ability to combat illicit trade itself.

***Note**: These comparisons are illustrative rather than predictive. They are intended to demonstrate the order of magnitude of the fiscal resources currently lost through illicit trade and the potential developmental benefits associated with stronger enforcement and improved compliance.*

Summary

Table 2: Summary - Theoretical increase in the number of teachers, nurses or police

	Additional number	Percent increase
Potential number of additional teachers	144 782	33.7%
Potential number of additional professional nurses	122 750	42.3%
Potential number of additional police	171 106	92.0%

These comparisons highlight that the cost of illicit trade extends well beyond foregone tax revenue.

Every rand lost through illicit trade represents fewer resources available to educate learners, treat patients, strengthen policing and improve public service delivery.

While the full recovery of these revenues is unlikely in practice, **even a partial reduction in illicit trade could materially strengthen government's fiscal capacity** to invest in education, healthcare, law enforcement and the long-term drivers of inclusive economic growth and human capital development.

Opportunity Cost for Housing, Tertiary Education, Student Funding and Old-age Social Grants

Housing delivery remains an important socio-economic priority, with substantial backlogs persisting across many municipalities and provinces.

Based on an estimated average subsidised housing cost of approximately R261,000 per unit[3], the estimated **illicit-trade-related tax losses could theoretically finance approximately 259,248 subsidised houses.**



Access to tertiary education and skills development remains central to SA's long-term economic growth prospects and labour market transformation. Using an indicative average annual bursary and student-support cost of approximately R110,000 per student, the estimated annual **tax losses associated with illicit trade could theoretically finance 615,982 tertiary education bursaries for one year**.



Social grants remain one of South Africa's most important mechanisms for poverty alleviation and income support. Using the 2024 Older Persons Grant value of approximately R2,180 per month (equivalent to R26,160 annually per beneficiary), the estimated **annual illicit-trade-related tax losses could theoretically finance approximately 2.6 million annual old-age grants.**



Summary

Table 3: Theoretical public benefits that could be financed through the recovery of illicit-trade-related tax losses

Category	Theoretical number
Subsidised (RDP) houses	+259,248
University bursaries/student funding	+615,982
Old-age social grants	+2,590,139

These comparisons illustrate the broader social opportunity cost of illicit trade.

While the full recovery of these revenues is unlikely in practice, even a partial reduction in illicit trade could expand government's fiscal capacity to address housing backlogs, improve access to higher education, strengthen social protection, and invest in the long-term drivers of inclusive economic growth and human capital development.

[3] *Subsidy Quantum Amounts https://www.nhbrc.org.za/wp-content/uploads/2024/07/Guide-Subsidy-Quantum-Revision-2023-2024.pdf*

Potential Impact on Public Infrastructure and Capital Investment

Beyond its impact on reducing the national budget deficit and government debt, as well as opportunities for public services and social expenditure, the estimated R68 billion in lost tax revenue associated with **illicit trade could represent a foregone opportunity to expand government investment in productive assets and infrastructure**.

Public-sector capital expenditure plays an important role in supporting long-term economic growth, improving service delivery, enhancing productivity and encouraging private investment.

The diversion of economic activity into the illicit economy therefore not only reduces current government revenue, but also constrains the state's ability to invest in the infrastructure and productive assets required to support future economic development.

Based on Stats SA data, total government gross fixed capital formation (GFCF) amounted to R183.8 billion in 2024. This represents 17.2% of total GFCF or 2.5% of GDP[4].

The estimated annual tax losses associated with illicit trade of roughly **R68 billion would therefore be equivalent to around 37% of total government capital expenditure**.

In other words, if these revenues had been available to the fiscus and allocated entirely towards public investment, **government capital spending could theoretically have increased to 3.4[5]% of GDP**, which would have been closer to historic average periods.

Table 4: Government gross fixed capital formation (R million, current prices) and theoretical increase in spending

Gross fixed capital formation by Government	2024 (Rm)	Theoretical increase (Rm)
Residential buildings	4 553	+1 678
Non-residential buildings	37 966	+13 993
Construction works	78 814	+29 047
Transport equipment	10 292	+3 793
Computers and related equipment	7 521	+2 772
Machinery and other equipment	20 242	+7 460
Research and development	21 422	+7 895
Computer software	3 009	+1 109
Other	30	+11
Total	**183 848**	**+67 758**

- If distributed using the 2024 share of government GFCF by kind of activity, the lost revenue could theoretically result in an **increase of R29 billion in construction works**, which include roads, bridges, water infrastructure, electricity networks and other public infrastructure projects.

[4] However, as a share, government GFCF has decreased in recent decades – in 2016 government GFCF was 19.8% of total investment, and in 2008 it was 3.86% of GDP

[5] The average government investment as a percentage of GDP from 2007 to 2017 was 3.4%

- The estimated revenue losses could result in an **annual increase in government expenditure on non-residential buildings of R14 billion**. This would include schools, hospitals, clinics, police stations and administrative facilities.
- If allocated according to existing government investment patterns, the **additional revenue could theoretically support a further R7.9 billion in annual expenditure on research and development**. Investment in research and development plays a critical role in improving productivity, supporting innovation, strengthening scientific capabilities and enhancing South Africa's long-term competitiveness.
- Similarly, government **expenditure on machinery and other equipment could theoretically increase by approximately R7.4 billion per year**. Such investment is important for improving the operational efficiency and effectiveness of public institutions, including healthcare facilities, educational institutions, municipal services and law-enforcement agencies.
- The estimated revenue losses could also theoretically **support an additional R3.8 billion in annual investment in transport equipment**. This includes vehicles and specialised equipment used by police services, emergency response units, municipalities, public transport entities and other government departments. Improved transport equipment can strengthen service delivery, improve public safety and increase the efficiency of government operations.

> Taken together, these estimates highlight that the economic cost of illicit trade extends beyond the immediate loss of government revenue. **The associated reduction in public investment constrains the state's ability to expand and modernise infrastructure, strengthen public services, improve productivity and support long-term economic growth.**
>
> Reducing illicit economic activity, therefore, has the potential to generate benefits that extend well beyond the direct fiscal gains, contributing to improved public-sector capacity, stronger economic performance and enhanced developmental outcomes.

Broader economic implications

- ➔ Although the opportunity-cost comparisons presented should not be interpreted as precise impacts or actual expenditure, it provides a contextualised picture of the benefits and broader developmental implications that extend far beyond the direct tax losses alone.
- ➔ Illicit activity not only undermines formal sector production capacity, formal employment creation and revenue generation, but also weakens the state’s broader capacity to support inclusive growth, poverty reduction, employment creation, and long-term socio-economic development.
- ➔ **The analysis supports the urgent need for the government to reduce illicit trade**. It further demonstrates that illicit trade has broader developmental implications extending far beyond direct tax losses alone. It reduces government revenue, constrains spending, for example, on education, healthcare, housing, infrastructure, policing, and social protection, or puts increasing pressure on borrowing and debt-service costs.

SECTOR CHAPTER

04

Alcohol

Sector synopsis and
economic impact assessment



ECONOMIC, FISCAL &
EMPLOYMENT IMPACT
ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R354.1bn
Total alcohol market value
R329bn legal (Euromonitor/DFSA)

41,766
Direct employment (formal + informal)
81% formal

R47.3bn
Direct sector GVA contribution
~0.7% of SA GVA

R73.5bn
Tax contributions (2024)
VAT & duties: R71bn (96.6%)
PIT: R1.5bn · Activity: R1.0bn

PRIMARY FORMS OF ILLICIT TRADE

1 **Counterfeit and illicit brands.** ~31% of illicit volume – largest channel in SA; counterfeit-branded spirits, refilled bottles and falsified packaging; increasingly organised, large-scale operations distributing through both formal and informal channels. — Highest

2 **Tax leakage and excise evasion.** ~25% of illicit volume – under-declared production, misclassification and unregistered manufacturing; most fiscally significant channel given the high excise burden on spirits. — High

3 **Smuggling and contraband.** ~23% of illicit volume – legally produced alcohol illegally imported to evade excise and tariffs; Beitbridge a primary land border-entry point; round-tripping schemes documented. — High

KEY DEMAND DRIVERS

- **Price** – illicit alcohol averages 37% cheaper (up to 70% discount). 67% of consumers cite price as the primary driver.
- **Availability** – spaza shops, shebeens & taverns provide wide access; online platforms and small-format sachets expanding reach.
- **Brand aspiration** – counterfeit spirits replicate premium labels, giving consumers access to perceived higher-status products despite income constraints.

KEY SUPPLY ENABLERS – TIER 1

- **High excise burden** – among highest in region; creates a large price gap allowing excise evaders to structurally undercut compliant producers.
- **Industrial ethanol access** – weak controls enable illicit operators to source raw materials cheaply at scale; primary enabler of counterfeit spirits.
- **Bottle recycling** – resale of used branded bottles enables refilling with adulterated product, reducing detection risk and production costs.

ILLICIT SUPPLY CHAIN — MULTI-CHANNEL, SPANNING FORMAL AND INFORMAL DISTRIBUTION

1	2	3	4	5
Production	**Border Entry ★**	**Counterfeiting ★★**	**Wholesale**	**Retail**
Licensed breweries, distilleries, wineries + unlicensed informal	Beitbridge & land borders Smuggled spirits & wine **Excise evasion**	Ethanol diversion Bottle refilling **Branded fakes**	Illicit wholesale networks supplying informal & formal channels	Spaza shops · shebeens taverns · online platforms · sachets

★ Border entry — primary excise evasion point for smuggled alcohol · ★★ Counterfeiting via ethanol diversion and bottle refilling operates domestically at scale — the dominant illicit channel, distinguishing SA from most comparable markets

ILLICIT PENETRATION RATE – ALCOHOL (ESTIMATE)

7% / 18%
7% value share (primary estimate) · 18% volume share (consumer exposure)

R25.1bn
Illicit alcohol market value *at prevailing illicit-market selling prices* (Euromonitor/DFSA, 2024)

↓ **same underlying volume repriced at formal market-equivalent prices**
illicit prices ≈37% lower than formal prices

~R39.8bn
Formal market-equivalent modelling value
Same underlying illicit alcohol volume, expressed at comparable formal-market prices for economic-impact modelling.

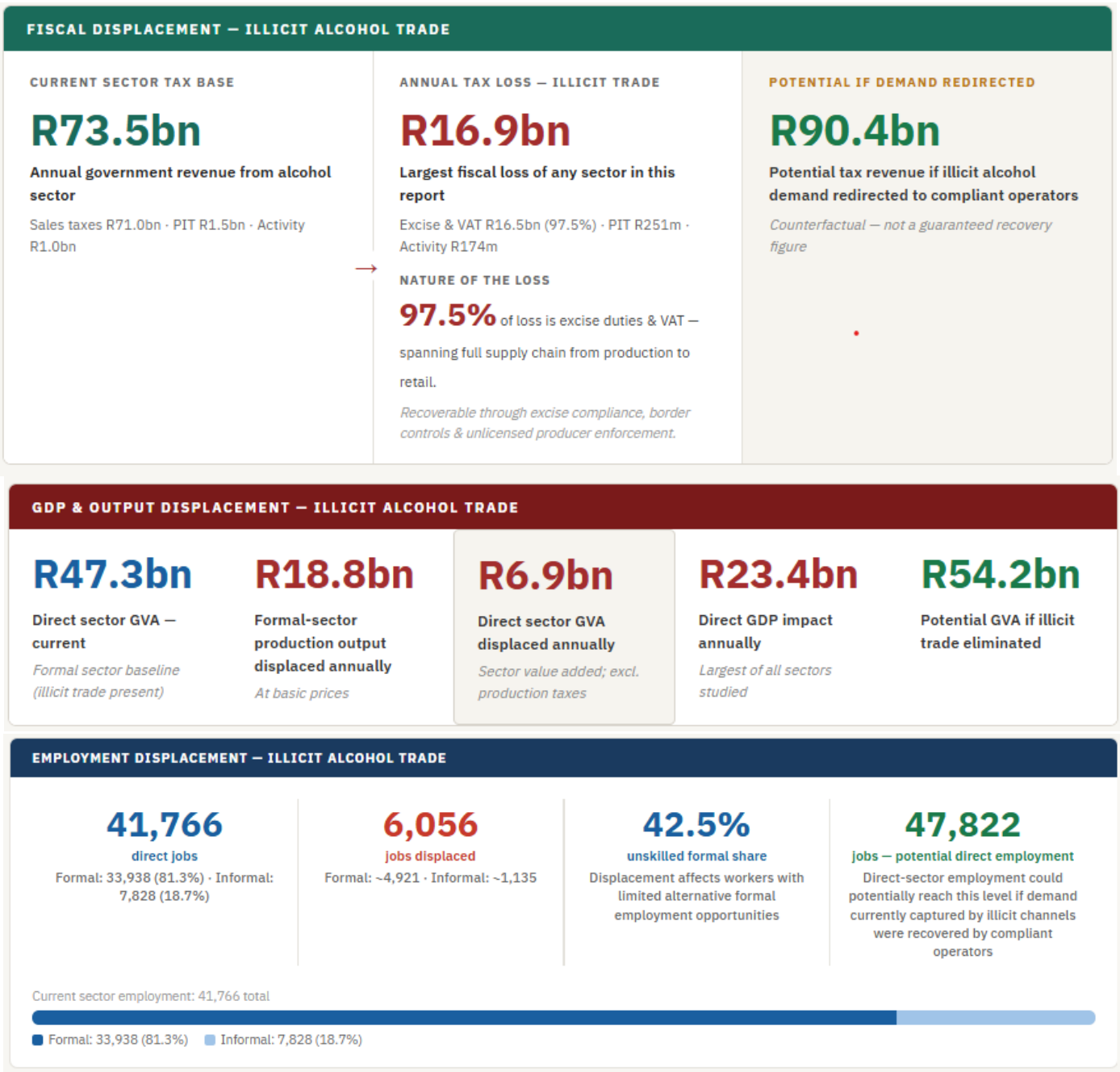
The alcohol estimate is based on the Euromonitor/DFSA study, which places illicit alcohol at approximately **7% of total market value** in 2024 – **R25.1 billion** at prevailing illicit-market prices.

For economic-impact modelling, Econometrix reprices the same underlying illicit volume at formal market-equivalent prices. Given that illicit alcohol sells at approximately **37% lower prices**, this produces a formal-market-equivalent value of approximately **R39.8 billion**.

R39.8 billion is therefore not a new market-size estimate – it is the same illicit alcohol volume expressed at formal-market prices.

The 18% volume share provides an indication of consumer exposure – approximately one in five units consumed is illicit – while 7% remains the primary market penetration estimate.

Illicit alcohol value increased by +96% (2017–2024). Volumes rose by +55%. · Approximately 1 in 5 alcohol purchases is illicit by volume.



GDP impact = GVA plus foregone taxes on products due to displaced activity. ·
Employment displacement applies a 14.5% direct GVA displacement rate to current direct employment levels.
Tax loss is a direct estimate; broader multiplier effects are not included to avoid double-counting.
Sources: Euromonitor International / DFSA illicit alcohol market assessment (2024); Stats SA Supply-Use Tables; SARB national accounts.

OVERVIEW OF ILLICIT ALCOHOL MARKET IN SOUTH AFRICA[6]

Global overview. Illicit alcohol is a significant and persistent feature of the global alcohol market, driven by the combination of high excise tax differentials, strong consumer demand, fragmented retail channels and uneven enforcement capacity. Globally, illicit alcohol takes multiple forms, including counterfeit branded products, smuggled alcohol, illicit artisanal production, tax-leaked products and diverted industrial or denatured alcohol. Unlike some other illicit consumer markets, alcohol is widely socially accepted and regularly consumed, which lowers stigma and reduces consumer resistance to illicit purchasing. International evidence suggests that illicit alcohol is particularly prevalent where there is a large price gap between legal and illegal products, weak control over ethanol and production inputs, and porous or poorly regulated distribution channels, including informal retail, border corridors and increasingly e-commerce. The global literature also highlights that illicit alcohol is often sustained not only by organised criminal supply, but also by consumer normalisation, limited product-level verification and weak awareness of health and legal risks.

Structural vulnerabilities in the alcohol value chain. Alcohol is structurally vulnerable to illicit trade because it combines high consumer demand, excise-driven price distortions, relatively simple product substitution in some categories, and multiple points of leakage across the value chain. These vulnerabilities arise at several stages, including production, bulk ethanol sourcing, importation, excise administration, warehousing, distribution and retail. These are especially vulnerable because they are high value, easy to counterfeit, relatively easy to dilute or refill, and can be sold in low-cost formats through fragmented retail channels. Counterfeit operators can imitate legitimate bottles, caps, labels and tax markings with increasing sophistication, while smuggling and diversion exploit differences in excise duties, border controls and regulatory oversight.

Public health and enforcement significance. Illicit alcohol is not only a tax and trade issue, but also a major public health and consumer protection risk. Unlike legal products, illicit alcohol may be produced, diluted or bottled without sanitary controls or product testing, increasing the risk of contamination and unsafe alcohol strength. In the most severe cases, illicit alcohol may contain methanol or other toxic substances, with potentially fatal consequences. International and South African evidence alike show that counterfeit and unsafe alcohol can cause poisoning, severe illness, blindness and death.

Organised crime dimension. Illicit alcohol is increasingly recognised as part of broader illicit trade and organised criminal networks. International evidence indicates that illicit alcohol markets often involve sophisticated supply chains, cross-border smuggling networks, counterfeit production facilities, and organised distribution systems that exploit weaknesses in customs controls, excise administration and enforcement capacity. As a result, illicit alcohol not only undermines legitimate economic activity but can also contribute to broader criminal economies and weaken regulatory institutions.

Consumer behaviour and affordability. A defining feature of illicit alcohol markets globally is the interaction between affordability and consumer behaviour. Research consistently shows that illicit alcohol is often purchased not because consumers are unaware of its illicit nature, but because lower prices, convenience and accessibility outweigh perceived legal or health risks. In many markets, illicit alcohol consumption becomes normalised within communities, particularly where enforcement is weak and informal retail channels are widespread.

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[6] *Source: Understanding the Illicit Alcohol Market (Euromonitor International, 2021, 2025), commissioned by the Drinks Federation of SA. Illicit alcohol refers to alcoholic beverages that are produced, distributed, or sold in violation of applicable laws and regulations, including the non-payment of excise duties, VAT, customs duties, or other applicable taxes. It may also involve failure to comply with licensing requirements, health and safety standards, or regulations governing the production process and ingredients used in alcoholic beverages. Illicit alcohol may include illegally produced spirits, smuggled or counterfeit products, and alcohol sold through unlicensed outlets.*

Enforcement and governance challenges. International experience further demonstrates that illicit alcohol flourishes where enforcement capacity is fragmented across multiple agencies, where coordination and information-sharing are limited, and where the probability of detection and prosecution remains low. Weak governance, porous borders, limited product traceability, and inadequate controls over production inputs such as ethanol can create conditions that enable illicit operators to scale rapidly and compete directly with legitimate producers.

South African context. The illicit alcohol market in South Africa is not an isolated, subsistence or informal criminal activity operating on the fringes of the economy. Recent evidence suggests that South Africa's illicit alcohol market has evolved into one increasingly characterised by organised counterfeiting operations, particularly within the spirits category, distinguishing it from many African markets where informal homebrew remains the dominant form of illicit alcohol. It is a large, organised, commercial and strategic parallel market that responds to the same price, demand and profit incentives as the formal alcohol industry, competing directly with legal producers.

Illegal suppliers exploit profit opportunities created by wide price differentials, uneven regulation, and weak enforcement of excise taxes, licensing requirements, product standards and distribution controls. On the demand side, consumption is driven primarily by affordability and accessibility, particularly in a context of constrained household budgets and price-sensitive consumer behaviour.

The COVID-19 alcohol bans significantly exacerbated these dynamics. Supply restrictions and rising prices during the bans allowed illicit traders to expand rapidly, consolidate control over supply, and influence pricing. The bans created a powerful demand-and-supply shock that enabled illicit traders to scale rapidly, consolidate distribution and entrench consumer access. Once legal sales resumed, illicit suppliers retained a strong competitive advantage by continuing to undercut licit prices – in some cases by more than 40% – accelerating market share losses and further eroding government tax revenue.

These dynamics have persisted in the post-pandemic environment. High inflation, constrained household incomes, unemployment and rising excise-related price pressures have continued to support demand for lower-cost illicit alcohol, particularly in price-sensitive segments and lower-income communities. At the same time, South Africa's fragmented retail environment, porous borders, illicit manufacturing capacity, and uneven enforcement create conditions in which counterfeit, smuggled and tax-leaked products can circulate at scale. As a result, the illicit alcohol trade in South Africa is fundamentally market-driven rather than opportunistic. It expands in response to predictable economic incentives, enabling organised operators to scale production, consolidate supply and compete directly with legal producers.

Scale and market significance. Available evidence indicates that illicit alcohol has evolved into a large, organised and deeply entrenched parallel market that competes directly with compliant producers across multiple product categories, particularly spirits. Rather than representing isolated instances of smuggling or informal production, the illicit market comprises a combination of counterfeiting, tax leakage, smuggling and illicit manufacturing that collectively undermine legitimate competition throughout the alcohol value chain. As a result, illicit alcohol should be understood as a structural feature of the South African market rather than a peripheral criminal activity.

The economic significance of this extends well beyond lost sales. By diverting demand away from compliant producers, illicit alcohol suppresses investment, employment, tax revenue and formal economic activity, while increasing consumer health risks and strengthening organised criminal networks.

The scale of the market, therefore, has important implications not only for public finances and industry competitiveness, but also for public health, consumer protection and long-term economic growth. Industry evidence further indicates that illicit trade has constrained revenue growth, delayed investment, reduced employment creation and weakened confidence in legitimate brands, reinforcing the broader economic and social costs associated with an expanding parallel alcohol market.

STRUCTURE AND DRIVERS OF ILLICIT ALCOHOL TRADE

Primary forms of illicit alcohol trade in South Africa

RANK	PRIMARY FORM	RELATIVE SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Counterfeit and illicit brands**	**Highest – dominant and growing**	Accounts for approximately 31% of illicit alcohol by volume (2024), making it the largest illicit alcohol channel in South Africa. This distinguishes South Africa from many comparable markets where homebrew typically dominates. The channel includes counterfeit-branded spirits, refilled bottles, falsified packaging and illicitly produced branded or pseudo-branded products distributed through both formal and informal retail channels. The market is increasingly characterised by large-scale, organised counterfeiting operations, which replicate branded packaging, refill genuine bottles with adulterated product, and distribute at scale.
2	**Tax leakage and excise evasion**	**High – second largest; significant fiscally**	Accounts for approximately 25% of illicit alcohol by volume. This includes under-declared production, product misclassification, illicit manufacturing and excise avoidance. Key mechanisms include unregistered production, adulteration at unlicensed sites and the under-reporting or misclassification of volumes by registered manufacturers. The fiscal impact is particularly significant given the high excise burden on spirits.
3	**Smuggling and contraband**	**High – third largest**	Accounts for approximately 23% of illicit alcohol by volume. This includes legally produced alcohol that is illegally imported or moved to evade excise duties and import tariffs, as well as diversion and round-tripping schemes. Cross-border smuggling of legitimately produced alcohol, particularly spirits and wine, is concentrated along key land border routes, with Beitbridge a primary entry point. Round-tripping – where goods are exported and re-imported under false documentation to access duty drawbacks – is a documented variant.
4	**Illicit homebrew**	**Moderate – significant, but declining**	Accounts for approximately 21% of illicit alcohol by volume. This includes traditional fermented or distilled beverages produced and sold commercially outside the regulatory framework. While still significant, particularly in rural and township economies with established informal distribution networks, the relative share of this channel has declined since 2020 as organised counterfeiting expanded.

Cross-cutting illicit mechanisms and enabling conditions

These do not represent separate market-share categories, but rather mechanisms that facilitate or conceal the primary forms above.

MECHANISM / ENABLER	WHY IT MATTERS
Customs misdeclaration and unlawful imports	Enables smuggling, tax leakage and the entry of contraband alcohol through formal customs channels via false declarations of product classification, quantity, origin or value.
Unlicensed production and operations	Enables counterfeit production, excise evasion and illicit bottling outside the licensed manufacturing and distribution system.
Non-compliant products	Includes products that do not meet SABS standards, with incorrect labelling, absent health warnings, or misleading alcohol content declarations. Often overlaps with counterfeit or illicitly produced alcohol and raises consumer safety risks.

Composition of South Africa's illicit alcohol market by primary form (value), 2024 (arrows indicate movement from 2020)

Counterfeit and illicit brands account for the largest share of illicit alcohol, followed by smuggling, illicit homebrew and tax leakage.



Source: Euromonitor illicit alcohol market analysis; Econometrix Industry Survey

Key Illicit Consumer Behaviour and Demand-Side Drivers

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Price and affordability pressures	Large **price differentials** between licit and illicit alcohol – averaging approximately **37% and in some cases up to 70%** – make illicit products highly attractive. Around 67% of consumers cite price as the primary reason for purchasing illicit alcohol. Rising excise duties, inflation, and input cost pressures continue to push up the price of legal alcohol, while high unemployment and constrained household incomes heighten price sensitivity. As a result, many consumers substitute for cheaper illicit alternatives.	**Highest**
High availability and convenience	Illicit alcohol is widely accessible across South Africa through informal and semi-formal retail channels, making it pervasive in many communities. Spaza shops, shebeens and taverns remain key distribution points, supported by established illicit wholesale networks. In addition, some illegal manufacturers increasingly utilise online platforms and small-format packaging (e.g. sachets) to expand reach and reduce purchasing friction.	**High**
Aspirational consumption and brand access	Demand for premium and well-known brands drives consumption of counterfeit spirits, which replicate established labels at significantly lower prices. This enables consumers to access perceived higher-status products despite income constraints, thereby reinforcing demand for counterfeit branded alcohol.	**High**
Weak consumer deterrence and authenticity uncertainty	Consumers often struggle to distinguish between genuine and counterfeit alcohol, particularly when packaging, labelling and bottle design closely mimic those of legitimate brands. This reduces the perceived purchase risk and weakens a key deterrent to illicit consumption, especially in informal and on-trade environments.	**Moderate–High**
Low awareness of health and safety risks	Limited awareness of the potential health risks associated with illicit alcohol – including contamination, incorrect alcohol content or toxic substances – contributes to greater social acceptance and normalisation of illicit consumption. In many cases, risk perceptions are secondary to price and availability considerations.	**Moderate–High**
Social normalisation and embedded consumption patterns	In some communities, the consumption of illicit or informally sourced alcohol is normalised and socially embedded, particularly where informal retail channels dominate. This reduces stigma and reinforces repeat purchasing behaviour across consumer groups.	**Moderate**
Perceived low risk of enforcement	Purchasing illicit alcohol is generally perceived as low risk, with limited visible enforcement at the consumer level. The widespread availability of illicit products reinforces the perception that such purchases carry minimal legal or reputational consequences.	**Moderate**

Source: Understanding the Illicit Alcohol Market (Euromonitor International, 2021, 2025), commissioned by the Drinks Federation of SA; Industry Survey conducted by Econometrix

Supply-Side Enablers of Illicit Trade

Supply-side enablers are organised into three tiers based on their assessed impact on the scale and persistence of the illicit alcohol trade in SA. Tier 1 factors represent primary structural drivers, while Tiers 2 and 3 are compounding or contextual factors that amplify these conditions.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High excise and tax burden. South Africa's excise duties on alcohol, particularly spirits, are among the highest in the region. When combined with VAT and compliance costs, this creates a substantial price gap between legal and illicit products. Producers who evade excise can undercut compliant manufacturers while maintaining high margins.	**Fragmented enforcement and weak coordination** Enforcement responsibilities are spread across SARS, BMA, SAPS, the NRCS and municipal authorities, with limited coordination, data sharing and operational capacity. This weakens inspections, investigations and prosecutions, allowing illicit operators to exploit jurisdictional gaps.
Uncontrolled access to industrial ethanol Weak controls over the production, sale and distribution of industrial ethanol enable illicit operators to source raw materials cheaply and at scale. This is a primary enabler of counterfeit spirits production – the dominant illicit alcohol channel in South Africa.	**Low probability of detection and prosecution** Even where illicit operations are identified, enforcement follow-through is limited. Low arrest and prosecution rates reduce deterrence and increase the attractiveness of operating outside the regulatory framework.
Access to genuine branded bottles and packaging Extensive recycling and resale of used branded bottles enable counterfeiters to refill authentic containers with adulterated alcohol. The availability of genuine packaging reduces detection risk and lowers production costs.	**Weak product authentication and traceability controls** The absence of robust bottle-level authentication, tamper-evident verification and traceability mechanisms makes it difficult for retailers, inspectors and consumers to distinguish genuine products from counterfeit alcohol. This is particularly relevant in spirits, where counterfeiters can reuse authentic bottles and closely replicate branded packaging.
Tier 2 – Structural & Systemic Drivers	
Industrial-scale and increasingly sophisticated illicit operations South Africa's illicit alcohol market is characterised by organised counterfeiting networks capable of replicating branded packaging, bottling and distribution systems at scale, often mirroring legitimate supply chains.	**Governance failures and corruption risks** Corruption across licensing authorities, border posts and inspection points facilitates illicit production and distribution, undermining the effectiveness of enforcement.
Large informal retail and on-trade distribution networks Spaza shops, shebeens and informal outlets provide accessible, low-friction channels for illicit alcohol once it enters the market.	**Regulatory imbalance between formal and informal operators** Licensed manufacturers and retailers face strict compliance requirements, while informal or illicit operators face limited effective oversight, creating an uneven competitive environment.
Cross-border smuggling of finished alcohol products Price differentials across neighbouring countries, combined with limited inspection capacity and growing trade volumes, facilitate the movement of undeclared, misdeclared and counterfeit alcohol across borders.	**Weak retail-level enforcement** Limited inspection of retail and on-trade outlets allows counterfeit and unregistered alcohol to be sold alongside legitimate products, with minimal risk of detection.
Border and customs capacity constraints Resource limitations, inspection backlogs, growing trade volumes and competing enforcement priorities reduce the proportion of cargo that can be physically inspected. These constraints increase the likelihood that illicit alcohol, counterfeit products and undeclared imports enter the country undetected.	
Tier 3 – Market-Level & External Factors	
Strong downstream demand for low-cost alcohol High unemployment and cost-of-living pressures sustain demand for cheaper alcohol alternatives, reinforcing the commercial viability and scalability of illicit supply.	**Weak cross-border enforcement and international coordination** Gaps in cooperation with source and transit countries allow illicit alcohol and raw materials to move across borders with limited interception.
South Africa's role as a regional distribution hub High trade volumes through major ports and land borders increase the complexity of monitoring and enforcement, particularly where licit and illicit flows overlap.	**Fragmented alcohol licensing framework** Licensing responsibilities are divided across national, provincial and municipal levels, creating inconsistencies and enforcement gaps that illicit operators can exploit.

Sources: Industry Survey (Econometrix); OECD, WCO, Euromonitor

The Illicit Alcohol Supply Chain | Five-stage flow

1 INPUTS / SOURCE

Finished Goods & Raw Ingredients — BEYOND SA JURISDICTION — LIMITED INTERVENTION

FINISHED GOODS SOURCES

Neighbouring southern African countries · Eastern Europe · selected Asian suppliers

RAW INPUT SOURCES

Industrial ethanol diverted from legitimate supply chains · Ethanol smuggled across porous land borders · Informal supply networks providing low-cost inputs

ENFORCEMENT LEVER

International customs cooperation and bilateral engagement with source countries remain important.

Stronger controls over industrial ethanol production, licensing and cross-border movement are critical.

2 PRODUCTION / COUNTERFEITING

Illicit Production & Counterfeiting — TIER 1 SUPPLY-SIDE MECHANISM

PRODUCTION ACTIVITIES

Counterfeit spirits produced from industrial ethanol at unlicensed sites · Refilling of genuine branded bottles with adulterated alcohol · Replication of branded packaging and labelling · Product tampering and informal bottling

EXCISE EVASION MECHANISMS

Misclassification of product types to evade higher excise duties · under-declaration of production volumes · production outside licensed facilities.

ENFORCEMENT IMPLICATION

Low production costs, access to industrial ethanol and the availability of genuine bottles enable illicit operators to **replicate legitimate products at scale**.

Effective intervention requires stronger controls over ethanol supply chains, packaging custody and excise compliance monitoring.

3 BORDER ENTRY ★

Smuggled or Misdeclared Imports — ★ PRIMARY SARS/BMA INTERVENTION POINT

KEY ENTRY POINTS

Beitbridge · Durban · Cape Town · OR Tambo · informal land crossings with neighbouring countries

ENTRY MECHANISMS

Undervaluation of import values · misdeclaration of product categories (e.g. spirits declared as lower-excise beverages) · round-tripping and duty-free channel diversion · concealment within legitimate consignments · corrupt facilitation at border posts.

ENFORCEMENT IMPLICATION

Border control remains the highest-leverage intervention point for excise enforcement and revenue protection.

Limited inspection capacity, high trade volumes and corruption risks increase the probability of evasion.

4 DISTRIBUTION

Informal Wholesale & Redistribution — POST-BORDER DISTRIBUTION

KEY ACTORS

Local distributors and intermediaries supplying shebeens, taverns and independent bottle stores · Informal open markets and distribution hubs · Residential homes acting as local redistribution points

DISTRIBUTION MODEL

Illicit alcohol is moved through **largely untraceable local networks**, often outside the formal commercial and tax system. Both counterfeit and smuggled products may be redistributed through the same channels.

ENFORCEMENT IMPLICATION

Harder to detect than border entry, as products circulate through fragmented local networks once inside the domestic market.

Requires **market intelligence, excise follow-up, local enforcement coordination and targeted inspections** rather than border controls alone.

5 RETAIL / CONSUMER ACCESS

Multiple Routes to Consumer — FINAL ACCESS POINT — HIGHEST HEALTH & COMPLIANCE RISK

Channel 1
Informal on-trade outlets

Distributor/intermediary → Shebeen/tavern → Consumer

- Dominant channel. Informal on-trade outlets typically source from local distributors or informal suppliers and offer products at lower or comparable prices to formal liquor outlets.

Channel 2
Street and informal retail

Informal supplier/market hub → Street vendor/informal trader → Consumer

- High-volume community channel. Street vendors often source stock from informal suppliers or local market hubs and sell directly into price-sensitive communities.

Channel 3
Residential & direct-to-consumer sales

Informal distributor → Residential home/direct seller → Consumer

- Localised and trusted community-level channel. Residential homes may act as informal resale points for both illicit and licit alcohol obtained outside formal channels.

ENFORCEMENT IMPLICATION

This is the final and most visible point of illicit market penetration, but also one of the hardest to regulate effectively. Requires **local inspections, licensing enforcement, retailer monitoring** and consumer-facing awareness measures.

Source: WHO, WCO, Interpol, SARS, SAHPRA, OECD/EUIPO, UN Comtrade / ITC Trade Map

SCALE OF ILLICIT ALCOHOL – PENETRATION RATE[7]

Methodological approach

Direct measurement of illicit alcohol trade is inherently difficult because counterfeit, smuggled, tax-leaked and informally produced alcohol is deliberately designed to evade formal reporting, taxation and regulatory oversight. However, the South African alcohol market has already been the subject of a dedicated sector-specific illicit market study commissioned by the Drinks Federation of South Africa (DFSA) and conducted by Euromonitor International.

Accordingly, this section does not attempt to derive a separate penetration estimate using indirect proxies such as mirror-trade analysis, seizures or supply-use benchmarks. This is because such methods would capture only a partial and potentially misleading view of illicit alcohol activity in South Africa, where a substantial share of the illicit market arises not only from smuggling, but also from counterfeiting, tax leakage, ethanol diversion, illicit local production and informal distribution.

Instead, this analysis draws primarily on the Euromonitor/DFSA illicit alcohol market assessment, which provides a more comprehensive estimate of market penetration by combining multiple complementary sources of evidence. These include:

- store visits and local outlet observations
- consumer survey evidence
- in-depth stakeholder interviews
- desk research and market analysis
- and value chain analysis designed to avoid double-counting.

Euromonitor research design

Euromonitor's South African illicit alcohol study uses a multifaceted and standardised methodology intended to estimate the size, structure and drivers of the illicit market while avoiding double-counting across overlapping illicit forms. The research design included:

METHOD	WHAT IT CAPTURES	SOURCE / APPROACH
Store visits and local outlet observations	Product availability, pricing, illicit brand presence and local supply patterns	57 outlet visits across multiple provinces
Consumer survey	Consumer awareness, purchase channels, perceptions of illicit alcohol and government response	Online survey of 707 consumers
Stakeholder interviews	Industry intelligence, illicit market structure, enforcement challenges and supply-chain insights	12 in-depth interviews across manufacturers, regulators, NGOs and industry bodies
Desk research and market analysis	Category trends, trade context, regulatory environment and legal market structure	Euromonitor Passport, official statistics and secondary sources
Value chain classification	Allocation of illicit activity to the stage at which a product first enters the illicit market	Used to avoid double-counting across overlapping illicit forms

Source: Euromonitor

This framework is analytically stronger than a narrow trade-based estimate because it captures illicit activity arising through local counterfeiting, ethanol diversion, tax leakage, smuggling and informal distribution – all of which are important features of South Africa's illicit alcohol market.

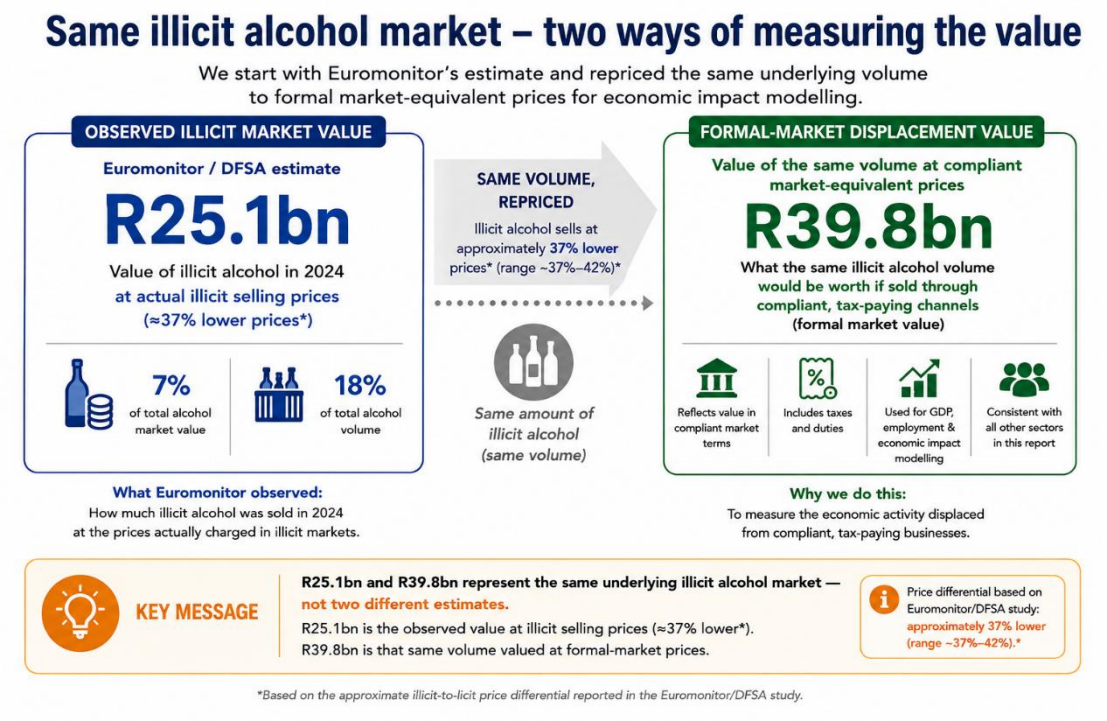
[7] *Source: Euromonitor International; DFSA; Understanding the Illicit Alcohol Market in South Africa, May 2025.*

NOTE: ESTIMATES OF ILLICIT ALCOHOL TRADE

The starting point for the alcohol analysis is the Euromonitor study commissioned by DFSA. Econometrix does *not* derive an alternative estimate of the size of the illicit alcohol market.

- **Euromonitor/DFSA estimates** that illicit alcohol accounted for approximately 7% of total alcohol market value in South Africa in 2024, equivalent to **R25.1 billion at prevailing illicit-market selling prices**.*
- The Euromonitor/DFSA study also identifies a substantial price differential between illicit and formal alcohol, with illicit alcohol selling at approximately 37% lower prices than comparable products in the formal market (with the reported differential ranging from approximately 37% to 42%).
- For economic-impact modelling, **Econometrix reprices the same underlying illicit alcohol volume at *formal market-equivalent prices*** – in other words, what that same volume would have been worth had it been sold through compliant, tax-paying channels. Applying the approximately 37% lower illicit-market price, this produces a working value of approximately R39.8 billion.

  This provides the appropriate price basis for estimating the formal economic activity displaced by illicit trade and ensures consistency with the economic-impact methodology applied across sectors. ***The R39.8 billion is therefore not a new or alternative estimate*** of the illicit alcohol market.



- The Euromonitor/DFSA study estimates that illicit alcohol accounted for approximately **7% of total alcohol market value** in South Africa in 2024.
- **Illicit alcohol accounted for approximately 18% of total alcohol volumes**, compared with 7% of market value, reflecting its concentration in lower-priced products and distribution channels. On a volume basis, this means that nearly one in every five units of alcohol consumed in South Africa is illicit.
- The scale of illicit alcohol has also increased materially. Between 2017 and 2024, **illicit alcohol volumes increased by approximately 55%, while the estimated value of the illicit market increased by approximately 96%.**

Source: Based on the Euromonitor International multi-method study commissioned by DFSA (outlet visits, consumer survey, stakeholder interviews and value-chain analysis).

* *This is benchmarked against a total alcohol market of approximately R354.1 billion, of which around R329.0 billion was licit, and R25.1 billion was illicit.*

Interpretation of the Penetration Estimate

- The **7% value share is adopted as the primary illicit-market penetration estimate** for the economic analysis because it measures the share of market expenditure captured by illicit trade.
- The 18% volume share provides an important complementary measure of consumer exposure and market reach, but represents a larger share because illicit products are generally sold at substantially lower prices than compliant alternatives.
- Taken together, the two measures show that illicit alcohol has become a significant parallel market: its economic value share is 7%, while its reach in terms of physical volumes is substantially greater at 18%.
- **For the purposes of estimating GDP, fiscal and employment impacts, the observed illicit market value of R25.1 billion is converted to formal market-equivalent prices** to reflect the economic activity displaced from compliant producers and distributors. This produces a **working estimate of approximately R39.8 billion**, which is used consistently throughout the subsequent economic impact analysis.
- Taken together, these estimates indicate that illicit alcohol has become a large and deeply entrenched parallel market in South Africa, capturing a substantial share of total alcohol consumption while remaining concentrated in lower-priced market segments.

ECONOMIC IMPACT OF ILLICIT ALCOHOL TRADE IN SOUTH AFRICA

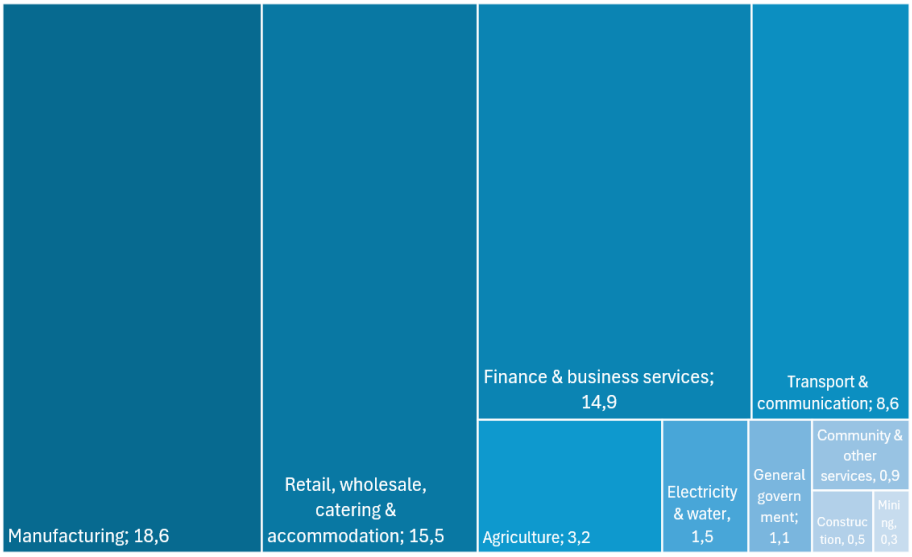
The Alcoholic Beverage[8] Sector's Value Chain and Economic Linkages

The alcoholic beverages industry makes a substantial contribution to South Africa's economy, extending well beyond the production of beer, wine, spirits and ready-to-drink (RTD) beverages. Through an extensive value chain spanning the primary, secondary and tertiary sectors, the industry supports broad-based economic activity, generating income, employment, tax revenue and business demand across the economy.

The sector is linked to a wide network of upstream suppliers and downstream distribution and service industries.

- **Upstream**, the value chain begins with agricultural inputs such as grapes, barley, hops and sugar cane, and extends into manufacturing and industrial support activities, including bottling, packaging, chemicals, machinery, energy, water treatment and logistics. Production then takes place through brewing, distilling and winemaking, before products move through formal and informal distribution, wholesale, retail and hospitality channels. As a result, the alcohol value chain supports a wide range of industries beyond beverage production itself, including agriculture, packaging, transport, warehousing, wholesale and retail trade, hospitality, advertising, events, tourism, business services and finance. Upstream linkages include agriculture, packaging, chemicals, machinery, transport, utilities and business services.

Industries benefiting from the liquor industry's direct procurement (R billion)
Total procurement (2022): R65,2 bn (Source: Quantec)



- **Downstream** linkages include distributors, wholesalers, retailers, taverns, restaurants, hotels and the broader hospitality sector.

The sectors benefiting most directly from the alcohol industry's procurement include manufacturing, retail, wholesale, catering and accommodation, finance and business services, and transport and communication (see chart). For historical and commercial reasons, the industry remains relatively concentrated on the production side, particularly in beer and spirits, although the wine segment is more fragmented.

At the same time, the route to market is far more dispersed, with products reaching consumers through a broad mix of formal and informal retail and on-trade channels. This fragmented distribution environment is important in the context of illicit trade, as it creates multiple points at which counterfeit, smuggled, tax-leaked or non-compliant products can enter and circulate within the domestic market.

[8] *Terms "alcohol beverage industry", "alcohol beverage sector" and "liquor industry" are used interchangeably and refer to legal alcohol beverage industry in SA.*

Economic Impact of Illicit Alcohol Trade

Introduction

The working illicit market estimate of approximately R39.8 billion per year (derived from the Euromonitor/DFSA estimate of R25.1 billion and expressed at formal market-equivalent prices) represents expenditure diverted away from compliant, tax-paying producers, distributors and retailers into illicit supply channels.

However, this does not translate directly into an equivalent loss of GDP, nor does it fully capture the broader economic consequences of illicit trade.

Beyond displaced sales, illicit trade weakens the competitiveness of compliant producers, erodes pricing power, discourages investment and limits employment creation. Over time, sustained illicit competition – from counterfeit products, tax-leaked alcohol, ethanol diversion and informal production – can contribute to the erosion of legitimate market share, the suppression of investment in brand integrity and quality assurance, and the gradual displacement of formal employment along the value chain.

The economic impact of the illicit alcohol trade operates through several interconnected channels:

- **Displaced production, sales and brand value** – legitimate producers are undercut by counterfeit, tax-leaked and illicitly produced alternatives, reducing sales volumes, margins and brand value;
- **Reduced wholesale and retail activity** – formal distributors and licensed outlets lose sales to illicit channels, reducing economic activity and employment within the formal sector;
- **Foregone tax revenue** – excise duties, VAT and other taxes associated with displaced formal alcohol sales are lost to the fiscus, representing one of the most material fiscal exposures in this report;
- **Employment losses** – illicit trade displaces activity from formal value chains, reducing employment opportunities across production, distribution, retail and hospitality;
- **Suppressed investment** – persistent illicit competition weakens incentives for business expansion, brand development and long-term investment in compliant production; and
- **Consumer health and social harms** – illicit alcohol, including counterfeit products and informally produced spirits with unregulated ethanol content, poses direct health risks that generate broader social costs not captured in the economic impact framework.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using the formal market-equivalent working estimate of approximately R39.8 billion.

Overall methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and does not include broader economy-wide multiplier effects in the central estimates. While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household spending and lower business activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors.

The direct-impact approach provides a conservative and transparent estimate of the economic costs associated with illicit trade. The impacts presented should therefore be interpreted as a conservative estimate of the direct economic cost of illicit trade to South Africa.

Methodological note – comparison with Quantec estimates

The employment, GVA and fiscal estimates presented in this section are not directly comparable with estimates from the Quantec study[9], as the two analyses differ in terms of data periods, sector definitions, modelling frameworks and underlying assumptions.

The Quantec analysis uses a different Social Accounting Matrix (SAM) and reference period, while the estimates in this report are based on a 2022 SAM framework, adjusted to 2024, and an Econometrix social accounting matrix developed from Statistics South Africa data. The two approaches therefore incorporate different economic structures, sector classifications, baseline values and assumptions.

Importantly, the estimates presented in this report focus on the direct economic, employment and fiscal impacts of illicit trade. The Quantec analysis also reports direct impacts, but places greater emphasis on broader economy-wide impacts generated through SAM-based multipliers. The two sets of estimates should therefore not be interpreted as directly comparable measures of the same impact. Differences between the results and other published estimates consequently reflect differences in methodology, data, definitions and modelling assumptions, rather than necessarily indicating contradictory findings.

[9] *Quantec Research study. The Contribution of the Alcohol Beverage Industry to the South African Economy: commissioned by DFSA, May 2024.*

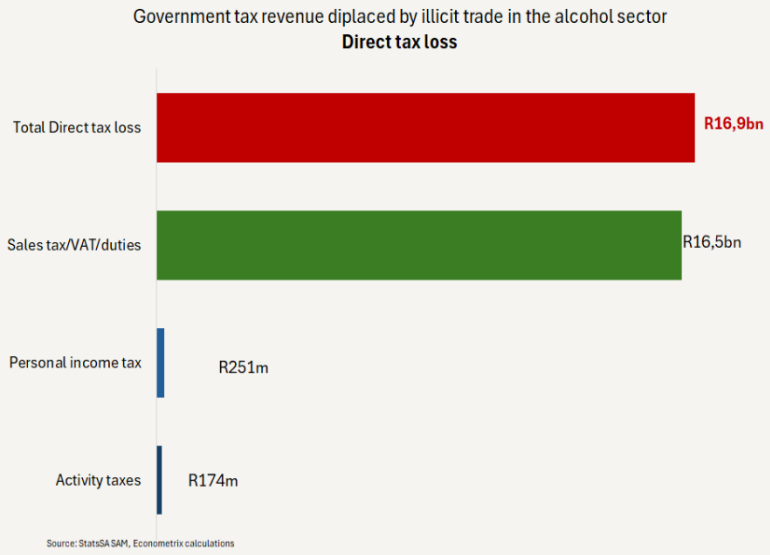
Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Alcohol Trade

The alcohol sector is an important contributor to South Africa's tax base, generating approximately R73.5 billion in direct government revenue annually through excise duties, VAT, personal income tax and other activity-related taxes. Excise duties and VAT together account for the overwhelming share of this contribution, reflecting the substantial levy burden embedded in the retail price of alcoholic beverages.

Illicit trade erodes this contribution by diverting economic activity away from compliant, duty-paying producers, distributors and retailers and into channels that operate partially or entirely outside the formal tax system.



The fiscal suppression effect



Based on the value-based illicit market estimate of R39.8 billion (derived from Euromonitor's R25 billion at prevailing illicit market prices), the illicit alcohol trade is estimated to result in approximately R16.9 billion in direct tax losses annually – one of the largest absolute fiscal losses of any sector assessed in this report.

Consequently, direct tax revenue from the sector could increase from approximately R73.5 billion currently to an estimated R90.4 billion if the demand currently captured by illicit trade were redirected to compliant operators.

The overwhelming majority of this loss – approximately R16.5 billion (97.5%) – arises from foregone excise duties and VAT.

The dominance of excise duties in the alcohol tax structure means that **relatively small volumes of illicit product can generate disproportionately large fiscal losses** compared to many other consumer goods sectors.

This reflects the multifaceted nature of the illicit alcohol trade in South Africa: counterfeit products and smuggled alcohol evade import duties and VAT at the border. In contrast, counterfeit and illicitly produced alcohol often bypass excise obligations, VAT and licensing requirements within the domestic market.

Unlike sectors where fiscal losses are driven solely by import channel evasion, alcohol's fiscal exposure spans the entire supply chain from production to retail. Personal income tax (PIT) losses are estimated at approximately R251 million, while activity-related taxes account for a further R174 million.

The fiscal argument for enforcement

The estimated R16.9 billion annual tax loss represents revenue that could **potentially be recovered** through improved excise compliance monitoring, enhanced border controls targeting smuggled alcohol, stronger action against counterfeit production, stricter oversight of licensed ethanol distributors and more effective enforcement against unlicensed production and informal distribution networks.

Unlike tax rate increases or new revenue measures, these **gains could be achieved through** improved compliance and enforcement within existing excise and licensing frameworks – including the existing licensing regime under the Liquor Act and SARS's excise administration infrastructure.

Note: *These are Econometrix modelling outputs, derived using the data, assumptions and calculation methodology described in the relevant sections.*

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Alcohol Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by the illicit alcohol trade using a three-step approach.

South Africa's alcohol sector has a substantial domestic manufacturing and production base spanning brewing, distilling, winemaking, packaging and distribution. The illicit alcohol trade displaces formal value added across this entire chain – counterfeit, smuggled, tax-leaked and informally produced alcohol competes directly with formally produced product without generating the associated excise, employment and investment contributions of compliant producers. Where illicit goods compete directly with domestically produced alcohol, the impact falls on factory output, brand investment, licensed distribution margins and formal retail activity simultaneously.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the alcohol sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R39.8 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses (derived from Euromonitor's R25 billion at prevailing illicit market prices). After converting the estimate from purchasers' prices to basic prices using the relevant SUT adjustments, including the removal of taxes on products and trade and transport margins, the estimate equates to approximately R18.8 billion in displaced formal-sector production output.

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit alcohol trade is estimated at R23.4 billion annually, comprising two components:

- **Direct GVA displaced**: R6.9 billion – derived by applying the sector's GVA-to-output ratio of approximately 36.7% (SUT-derived) to the displaced production output of R18.8 billion. This measures the loss of value added within the sector itself. The estimated direct GVA displacement of R6.9 billion is equivalent to approximately 14.5% of the sector's measured GVA of R47.3 billion.
- **Foregone taxes on products**: R16.5 billion – excise duties and VAT on displaced formal alcohol sales that accrue to government rather than the sector, and are therefore reported separately from sector GVA. This is one of the largest tax-on-products displacements of any sector in this report, reflecting the exceptionally high excise burden on alcoholic beverages.

Key methodological notes

The R39.8 billion estimate is derived from the Euromonitor/DFSA value-based illicit market estimate of R25.1 billion, expressed at formal market-equivalent prices for modelling purposes. It represents the study's central estimate of the formal-sector activity displaced by illicit alcohol trade.

The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- **South Africa's alcohol sector combines a substantial domestic production base with import exposure** in selected premium spirits, wine and speciality beverage categories. Illicit trade displaces formal value added not only in brewing, distilling and winemaking, but across packaging, logistics, licensed wholesale and retail – without generating the associated formal-sector economic contribution.
- The multi-form nature of illicit alcohol – spanning counterfeiting, smuggling, tax leakage, ethanol diversion and informal production – means **displacement occurs across multiple points in the value chain simultaneously**. The result is a broader suppression of formal economic activity than is typical of import-driven illicit trade in other sectors.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R47.3bn
2	Illicit market estimate (formal-equivalent prices)	R39.8bn
	Less: trade and transport margins	–R8.2bn
	= Displaced formal production output (at basic prices) *	R18.8bn
	× Sector GVA/output ratio (SUT-derived)	~36.7%
3a	= Direct GVA displaced by illicit trade	R6.9bn
3b	+ Foregone taxes on products due to displaced activity	R16.5bn
3c	= Direct GDP impact of illicit trade	R23.4bn
COUNTERFACTUAL	Direct alcohol GVA if illicit trade were eliminated	~R54.2bn

* After converting the estimate from purchasers' prices to basic prices using the relevant SUT adjustments, including the removal of taxes on products and trade and transport margins, the estimate equates to approximately R18.8 billion in displaced formal sector production output.

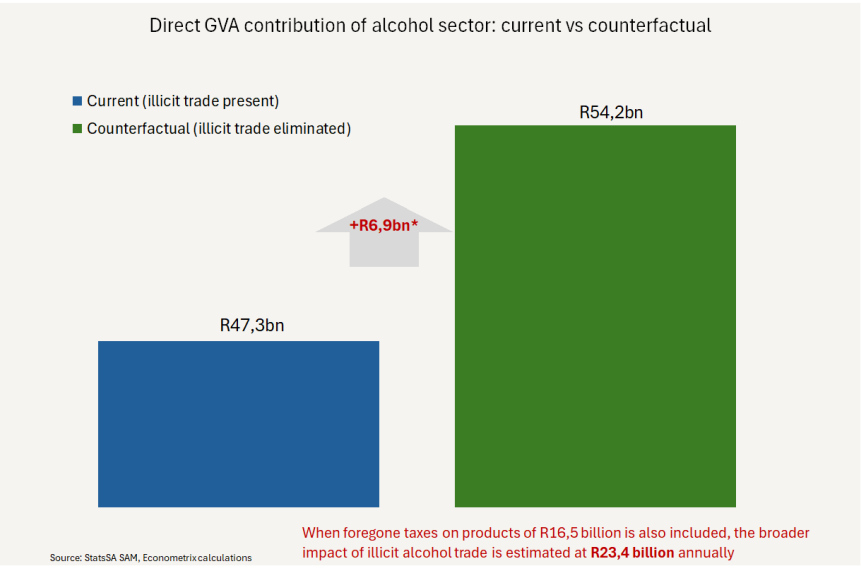
Counterfactual = estimated direct alcohol sector GVA if illicit alcohol trade were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R47.3bn	**R6.9bn**	**R23.4bn**	**R54.2bn**	**R18.8bn**
0.7% of total SA GVA	annually through illicit alcohol trade	Direct GVA displaced (R6.9bn) *plus* foregone taxes on products due to displaced activity (R16.5bn) †		annually by illicit alcohol trade (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include excise duties, VAT and import duties where applicable. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R39.8 billion of alcohol consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying producers and retailers (this number is derived from Euromonitor's R25 billion at prevailing illicit market prices).



Under the working estimate, this is projected to displace approximately **R18.8 billion in formal-sector production output**, **R6.9 billion in direct sector GVA,** and **R23.4 billion in total GDP impact** annually – one of the largest GDP displacements of any sector in this report.

As a result, the measured economic contribution of the alcohol sector is suppressed, leading official GVA estimates to underestimate the sector's potential contribution to the economy. **The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered**, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

South Africa's alcohol sector has a substantial domestic production base spanning brewing, distilling, winemaking, packaging, logistics and retail. As a result, the economic benefits of reducing illicit trade would accrue largely within the domestic economy. Activity currently occurring through illicit channels could potentially translate into additional formal production, investment and value added if captured by compliant producers and distributors.

Given the scale of the estimated displacement, improved enforcement against counterfeit products, smuggling, tax leakage, ethanol diversion and unlicensed production has the potential to support economic growth, strengthen the formal tax base and reinforce fair competition across the alcohol value chain.

By redirecting demand towards compliant operators, enforcement could help unlock additional investment, employment and economic activity within one of South Africa's most significant manufacturing sectors.

Note: *These are Econometrix modelling outputs, derived using the data, assumptions and calculation methodology described in the relevant sections.*

Contribution To SA's Employment and the Impact of Illicit Alcohol Trade

The alcohol sector supports employment across brewing, distilling, winemaking, packaging, wholesale distribution and licensed retail – spanning both formal manufacturing and informal distribution activities. **In total, the sector supports approximately 102,000 direct and value-chain jobs across the economy.**

- **Skilled and semi-skilled workers** account for approximately 58% of direct formal employment, reflecting the sector's requirements for technical, production, logistics and supervisory skills.
- **Unskilled workers** account for a substantial 42% of direct formal employment, meaning the effects of illicit trade are also felt by workers with more limited alternative formal employment opportunities, particularly in production, packaging, warehousing and distribution roles.
- While illicit trade affects both formal and informal participants, sustained displacement of demand from compliant producers ultimately constrains investment, production growth and employment creation across the formal alcohol value chain.

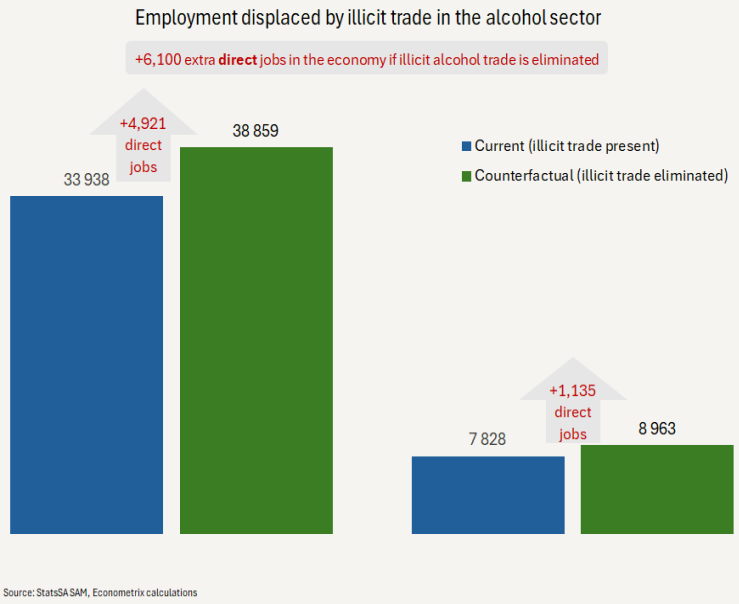
Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Unskilled formal job share
41,766 jobs	**6,056 jobs**	**47,822 jobs**	**42.5%**
Formal: 33,938 (81.3%) Informal: 7,828 (18.7%)	Formal: 4,921 (81.3%) Informal: 1,135	*(formal and informal)*	Displacement affects a predominantly semi-skilled (38.5%) and unskilled workforce, many of whom face limited alternative formal employment opportunities.

The employment suppression effect

The alcohol industry employs approximately 41,766 people currently.

Applying the direct GVA displacement ratio of **14.5%**[10] to current employment levels suggests that approximately **6,056 direct formal and informal jobs** are displaced by illicit alcohol trade.

Total **direct-sector employment could potentially reach approximately 47,822 direct formal and informal jobs** if demand currently captured by illicit channels were redirected towards compliant producers and retailers.



[10] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

These jobs represent employment that could potentially be supported across the alcohol value chain, including brewing, distilling, winemaking, packaging, logistics, wholesale distribution and licensed retail, if illicit trade were reduced and displaced demand recovered by compliant operators.

The broader employment impact would extend well beyond the sector itself. The alcohol sector **currently supports approximately 438,566 formal and informal jobs across the South African economy** through extensive upstream and downstream value-chain linkages, indicating that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

The employment argument for enforcement

The employment impact of the illicit alcohol trade extends beyond lost sales. By diverting demand away from compliant producers, distributors and licensed retailers, illicit trade reduces incentives for investment, capacity expansion and workforce growth across the formal alcohol value chain.

Given the sector's concentration of low-skilled and semi-skilled workers – who together account for over 80% of formal employment – reducing illicit alcohol trade could support employment retention among workers with limited alternative formal employment opportunities, while strengthening the long-term investment case for domestic alcohol production and distribution.

Note: *These are Econometrix modelling outputs, derived using the data, assumptions and calculation methodology described in the relevant sections.*

SECTOR CHAPTER

05

Chemicals

Sector synopsis and
economic impact assessment



ECONOMIC, FISCAL &
EMPLOYMENT IMPACT
ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R226.7bn
Annual chemicals market in South Africa, 2018–2022 (five-year average)

113,100
Direct employment (formal+informal); ~97.2% formal employment

R83.2bn
Direct sector GVA contribution; ~1.3% of SA GVA

R13.6bn
Current direct taxes supported by chemicals sector; Taxes on products (VAT, duties): R2.5bn (18.4%)

PRIMARY FORMS OF ILLICIT TRADE

1. **Counterfeit, adulterated & unregistered products** — Highest

Includes counterfeit, diluted, adulterated, unregistered and illegally repackaged products — including pesticides decanted into unlabelled containers and sold as "street pesticides." Presents significant health, environmental and economic risks.

2. **Smuggling (non-declared imports)** — High

Chemicals frequently smuggled across porous borders to evade customs duties, regulatory inspections and product registration requirements; difficult to quantify as it occurs outside official customs systems.

3. **Misdeclared, undervalued & unlawful imports** — High

False declarations of chemical composition, tariff classification, value or intended end-use to avoid duties or regulatory controls; often accompanies counterfeit products.

KEY DEMAND DRIVERS

- **Affordability pressures** — illicit chemicals are often sold at substantially lower prices than compliant alternatives because they evade import duties, VAT, product registration, quality assurance and regulatory compliance costs.
- **Wide availability** — illicit chemicals are readily available through informal distributors, unauthorised dealers, cross-border traders and increasingly online platforms.
- **Perceived equivalence** — many products appear visually identical regardless of whether they are genuine, counterfeit, adulterated or unregistered, reducing the incentive to purchase compliant products.

KEY SUPPLY ENABLERS

- High compliance and regulatory cost avoidance — illicit operators avoid the costs of product registration, licensing, testing, labelling, quality assurance and environmental compliance, creating a significant cost advantage over legitimate suppliers.
- Weak regulatory enforcement — capacity constraints, limited inspections and low detection and prosecution rates reduce the perceived risk of illicit chemical trade.
- Extensive import dependence & complex global supply chains — South Africa imports a substantial share of its chemical products, creating opportunities for counterfeit products, smuggling, customs fraud and supply-chain infiltration.

ILLICIT SUPPLY CHAIN

1	2	3	4	5
Manufacture & Source	**Importation & Cross-Border Movement ★**	**Warehousing & Diversion**	**Retail & Direct Distribution**	**End Use & Secondary Distribution**
Domestic counterfeit & unlicensed producers · offshore manufacturers (predominantly Asia)	Intermediary trading hubs · re-invoicing, origin concealment **Customs misdeclaration · primary trade-risk intervention point**	Informal wholesalers & warehouse operators · relabelling, repackaging, dilution	Unauthorised distributors, informal markets & online platforms · decanted "street pesticides"	Farmers, industrial, mining & household users · secondary diversion or blending

★ Cross-border movement combines two of the three highest-ranked illicit trade forms for chemicals — smuggling and misdeclared/undervalued imports — making it the primary trade-risk intervention point. Unlike CPC, chemicals' fiscal loss is concentrated in personal income tax rather than VAT/customs duties (see Fiscal Displacement card), so this stage is prioritised on trade-risk grounds, not tax-loss share.

ILLICIT PENETRATION RATE — CHEMICALS (WORKING ESTIMATE)

3%
Illicit penetration rate

~R6.8bn
per year

Evidence-informed modelling assumption adopted for all GDP, fiscal and employment impact modelling. Unlike sectors where multiple methods converge on one range, chemicals evidence spans two distinct tiers: a measurable South African floor from mirror trade and Supply-Use Table benchmarks (0.07%–0.6%), and a materially higher international benchmark for pesticides specifically (10%–25%) that is not extrapolated to the sector as a whole. The 3% working estimate is positioned as a conservative judgment call between these two tiers — well above the measurable SA floor, well below the pesticides-only ceiling — rather than a statistically derived point estimate.

FISCAL DISPLACEMENT — ILLICIT CHEMICALS TRADE

CURRENT SECTOR TAX BASE

R13.6bn

Annual government revenue from chemicals sector

Sales taxes R2.5bn · PIT R8.4bn · Activity R2.6bn

ANNUAL TAX LOSS — ILLICIT TRADE

R219m

Direct fiscal cost of illicit chemicals trade annually

VAT & duties R41m (18.7%) · PIT R136m · Activity R42m

NATURE OF THE LOSS

62% of loss is personal income tax — reflecting displaced formal wages and salaries within the sector, rather than customs or border evasion alone.

Recoverable within existing tax frameworks — no new taxes required.

POTENTIAL IF DEMAND REDIRECTED

R13.8bn

Potential tax revenue if illicit chemicals demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT CHEMICALS TRADE

R83.2bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R6.2bn

Formal-sector production output displaced annually

At basic prices

R1.3bn

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R1.4bn

Direct GDP impact annually

GVA R1.3bn + taxes R41m

R84.5bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT CHEMICALS TRADE

113,100

direct jobs

Formal: 109,953 (97.2%) · Informal: 3,147 (2.8%)

~1,810

jobs displaced

Formal: 1,760 · Informal: 50

45%

semi-skilled formal share

Displacement falls primarily on semi-skilled workers, with a further 32% affecting unskilled formal workers

114,910

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were redirected towards compliant businesses



GVA = *gross value added; measures the sector's direct economic contribution before production taxes.*
GDP impact includes foregone taxes on products. ·
Employment displacement applies a 1.6% direct GVA displacement rate to current direct employment levels. ·
Tax loss is a direct estimate; ***broader multiplier effects are not included to avoid double-counting.*** ·

OVERVIEW OF ILLICIT CHEMICALS MARKET IN SOUTH AFRICA

Global context

The chemicals industry is one of the world's largest and most strategically important manufacturing sectors, supplying essential inputs to virtually every segment of the global economy, including agriculture, mining, manufacturing, construction, healthcare, energy and consumer goods. In South Africa, the sector includes the manufacture of basic organic and inorganic chemicals, fertilisers and pesticides, plastics in primary forms, synthetic rubber, chemical products n.e.c. and artificial fibres. These products underpin numerous downstream industries and are fundamental to industrial production, agricultural productivity, food security and economic growth.

Given the hazardous nature of many chemical products, the industry is also among the world's most highly regulated. National legislation and international conventions govern the manufacture, registration, transport, trade and disposal of chemicals to safeguard human health and the environment.

Despite these regulatory frameworks, illicit trade in chemicals has become an increasingly significant global challenge. While international agreements regulate certain hazardous substances, they cover only a fraction of the chemicals traded globally, and differences in national legislation, regulatory capacity and enforcement continue to create opportunities for illicit trade across increasingly complex international supply chains.

Several structural characteristics make the chemicals sector particularly vulnerable to illicit trade. Product quality and safety often cannot be verified through visual inspection, requiring purchasers to rely on product registration, certification, labelling and supply-chain integrity.

At the same time, regulatory compliance can be costly and complex, while manufacturing, formulation, packaging and distribution frequently occur across multiple jurisdictions before products reach end-users. These factors reduce product traceability and create opportunities for illicit operators to infiltrate legitimate supply chains. The rapid growth of e-commerce has introduced an additional distribution channel, enabling counterfeit, unregistered and prohibited chemical products to be marketed directly to consumers while bypassing traditional distribution channels and regulatory oversight.

Forms of illicit trade in chemicals

Illicit trade in chemicals extends well beyond counterfeiting and encompasses both product-related and trade-related offences. Product-related offences include counterfeit, falsified, adulterated, unregistered and illegally repackaged chemical products. In contrast, trade-related offences include customs fraud, smuggling, under-invoicing, false labelling, misdeclaration of chemical composition and the diversion of legitimate chemicals into illicit markets. These activities are increasingly facilitated by organised criminal networks that exploit weaknesses in regulatory systems, border controls and international supply chains.

Economic, environmental and health impacts

Illicit chemical trade imposes substantial economic costs by undermining legitimate manufacturers, reducing investment, discouraging innovation, eroding intellectual property rights and weakening industrial competitiveness. Counterfeit and substandard chemicals frequently fail to meet required quality specifications, reducing product performance and generating losses across downstream industries.

In the European Union, **counterfeit pesticides** are estimated to reduce legitimate industry revenue by approximately €1.3 billion annually, equivalent to 13.8% of sector sales, illustrating the significant commercial impact of illicit chemical markets.[11]

The impacts extend beyond commercial losses. Counterfeit and substandard agricultural chemicals can reduce crop yields, compromise food quality and threaten food security, while counterfeit, adulterated and unregistered chemicals may contain banned substances or hazardous contaminants that have not undergone regulatory testing.

Exposure may result in acute poisoning, respiratory illness, neurological damage and other long-term health effects, while improper handling, storage and disposal can contaminate soil, groundwater and ecosystems. Consequently, illicit chemical trade represents not only an economic crime but also a significant public health and environmental challenge that undermines progress towards sustainable development.

South Africa's exposure

South Africa has one of Africa's largest and most diversified chemical industries and serves as an important regional manufacturing, import and distribution hub. The sector supplies critical inputs to agriculture, mining, manufacturing and numerous downstream industries. At the same time, the country's extensive transport infrastructure and regional trade links facilitate both legitimate commerce and transnational illicit trade.

The various forms of illicit chemical trade observed globally are also evident in South Africa. These include the smuggling of unregistered pesticides across porous borders, customs fraud through the misdeclaration and undervaluation of imports, the diversion of industrial precursor chemicals into illicit activities, the manufacture and distribution of substandard chemical products, and the importation of non-compliant plastics and other chemical products. Illicit chemicals are distributed through both formal and informal supply chains and, increasingly, through online marketplaces, making detection and enforcement progressively more challenging.

One of the most visible manifestations is the illicit trade in pesticides. Highly hazardous agricultural pesticides are illegally imported, decanted into unlabelled containers and sold through informal markets as so-called "street pesticides" for domestic pest control.

These products have been linked to numerous poisoning incidents and fatalities, particularly among children, highlighting the severe public health risks associated with illicit chemical markets. This chapter examines the prevalence, characteristics and economic impacts of illicit pesticides in greater detail.

Why this matters

Given the strategic importance of the chemicals sector to South Africa's economy, addressing illicit trade requires a coordinated and risk-based regulatory response. This includes strengthening customs enforcement, product registration systems, market surveillance, product traceability and intelligence sharing, while improving coordination between the Department of Agriculture (DALRRD) in relation to agricultural chemicals, SARS Customs, environmental authorities, law enforcement agencies and industry.

Strengthening these institutional arrangements will be essential to safeguard public health and the environment, protect legitimate manufacturers from unfair competition, secure government revenue and maintain the integrity of South Africa's chemical supply chains.

[11] *Source: European Union Intellectual Property Office (EUIPO),* The Economic Cost of IPR Infringement in the Pesticides Sector*, 2017.*

STRUCTURE AND DRIVERS OF ILLICIT CHEMICALS TRADE

Forms of illicit chemicals trade in South Africa: ranked assessment

Illicit trade in South Africa's chemicals sector is characterised primarily by counterfeit, adulterated and unregistered chemical products, together with unlawful imports and the diversion of legitimate chemicals into illicit markets. The sector's complexity, fragmented supply chains, diverse product range and extensive international trade create multiple opportunities for illicit activity across both industrial and consumer chemical products.

RANK	FORM OF ILLICIT TRADE	RELATIVE SIGNIFICANCE	EVIDENCE AND INDICATORS
1	Counterfeit, adulterated, unregistered and illegally repackaged chemical products (including decanted "street pesticides")	Highest – dominant illicit category	Widely identified across pesticides, fertilisers and industrial chemicals. Includes counterfeit, diluted, adulterated, unregistered and illegally repackaged products, including pesticides decanted into unlabelled containers and sold as "street pesticides". Supported by international evidence (UNICRI, OECD) and industry input. These products present significant health, environmental and economic risks.
2	Smuggling (non-declared imports)	High	Chemicals are frequently smuggled across porous borders to evade customs duties, regulatory inspections and product registration requirements. Particularly relevant for pesticides, fertilisers and hazardous chemicals. Difficult to quantify because activity occurs outside official customs systems.
3	Misdeclared, undervalued and unlawful imports	High	Includes false declarations of chemical composition, tariff classification, value or intended end-use to avoid duties or regulatory controls. Often accompanies counterfeit products and facilitates entry into legitimate supply chains.
4	Diversion of legitimate chemicals into illicit markets	Moderate – High	Genuine chemicals diverted from lawful supply chains for illegal distribution or unauthorised uses. Includes theft, illegal resale and diversion of precursor or controlled chemicals. Frequently identified in international studies as an emerging illicit trade channel.
5	Parallel (grey market) imports	Moderate	Genuine chemical products imported outside authorised distribution channels. Although products may comply with technical standards, they bypass official importers, product stewardship requirements and regulatory oversight.
6	Local illicit production	Low – Moderate	Domestic manufacture of counterfeit or adulterated chemical products occurs but is generally more limited than import-related illicit trade. Local activity is typically associated with illegal repackaging, adulteration or small-scale blending rather than large-scale chemical manufacturing.

Note: Due to the absence of comprehensive quantitative data measuring the relative scale of different illicit trade channels within SA's chemicals sector, the ranking should be interpreted as indicative rather than definitive. It is based on international evidence, regulatory reports and qualitative indicators relating to the structure and characteristics of illicit chemicals trade. The relative significance assigned to each category reflects a combined assessment of prevalence, economic impact, industry input, regulatory evidence, and potential health, safety and environmental risks, rather than any single quantitative measure.

- Illicit trade in South Africa's chemicals sector is primarily import-driven, with counterfeit, adulterated and unregistered products representing the dominant forms of illicit activity.
- Smuggling, misdeclaration and unlawful imports facilitate the entry of illicit chemicals by circumventing customs, taxation and regulatory controls.
- Local illicit production is relatively limited, with most activity involving adulteration, illegal blending and repackaging rather than large-scale manufacturing.

Key Illicit Consumer Behaviour and Demand-Side Drivers

Demand-side drivers differ across market segments, including households, farmers, commercial users and industrial purchasers. The assessment below reflects the principal drivers influencing demand across these user groups.

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Affordability pressures and cost minimisation	Illicit chemical products are often sold at substantially lower prices than compliant alternatives because they may evade import duties, VAT, product registration, quality assurance and regulatory compliance costs. In a cost-sensitive environment, both businesses and consumers may prioritise lower prices over product quality, safety and regulatory compliance.	Highest
Wide availability through informal and unauthorised channels	Illicit chemicals are readily available through informal distributors, unauthorised dealers, cross-border traders and increasingly through online platforms. The broad availability of these products increases accessibility and normalises purchasing outside authorised supply chains.	High
Perceived equivalence between compliant and illicit products	Many chemical products look identical regardless of whether they are genuine, counterfeit, adulterated or unregistered. When users perceive little difference in performance or quality, the incentive to purchase compliant products decreases.	High
Weak ability to verify authenticity and compliance	Buyers often have limited ability to verify whether chemical products are genuine, correctly formulated, legally registered or compliant with applicable regulations. Counterfeit packaging, misleading labelling and fraudulent documentation make detection difficult, reducing a key deterrent to purchase.	High
Low awareness of product safety, environmental and economic risks	End users may underestimate the health, environmental and operational risks associated with counterfeit, adulterated or unregistered chemicals, including product failure, contamination, environmental damage and unsafe handling. Awareness of the broader economic impacts, including tax losses and harm to legitimate manufacturers, is also often limited.	Moderate–High
Perceived low risk of purchase and limited enforcement visibility	Purchasing illicit chemical products is generally perceived as carrying limited risk, particularly where inspections are infrequent, and penalties are rarely visible. This weakens deterrence and allows demand for illicit products to persist.	Moderate–High
Business procurement pressures and supply constraints, and limited product availability	Businesses may source chemicals from unauthorised suppliers when legitimate products are unavailable, delivery times are lengthy or procurement budgets are constrained. This can increase demand for lower-cost or more readily available illicit alternatives.	Moderate

Note: The assessment reflects an analytical judgement based on international evidence and qualitative indicators. The relative impact assigned to each driver should be interpreted as indicative rather than definitive, given the limited availability of South African quantitative evidence.

Supply Side Enablers of Illicit Chemicals Trade

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High compliance and regulatory cost avoidance Illicit operators avoid the costs associated with product registration, licensing, testing, labelling, quality assurance and environmental compliance, creating a significant cost advantage over legitimate suppliers.	**Weak regulatory enforcement, limited deterrence and insufficient penalties** Capacity constraints, limited inspections, relatively low detection and prosecution rates, together with insufficient penalties, reduce the perceived risks associated with illicit chemical trade.
Extensive import dependence and complex global supply chains South Africa imports a substantial share of its chemical products, creating numerous opportunities for counterfeit products, smuggling, customs fraud and supply chain infiltration.	**Fragmented institutional responsibilities** Oversight is shared across SARS, SAPS, the Border Management Authority (BMA), DALRRD, the Department of Health, environmental authorities and other regulators, creating coordination and enforcement challenges.
Transhipment and trade opacity Routing goods through intermediary trading hubs enables origin concealment, re-invoicing, misdeclaration and undervaluation, weakening customs verification.	**Corruption and governance weaknesses** Corruption and weak governance may undermine inspections, border controls and regulatory enforcement, reducing the effectiveness of regulatory oversight.
Large-scale global production of counterfeit and unregistered chemicals International manufacturing capacity enables the rapid production and export of counterfeit, adulterated and unregistered chemical products into markets with weaker enforcement.	
Organised criminal networks Sophisticated criminal groups exploit complex international supply chains, porous borders and distribution networks to facilitate the manufacture, movement and distribution of illicit chemical products.	
Tier 2 – Amplifying and Enabling Factors	
Diversion of legitimate chemicals Legitimate chemicals may be diverted from authorised supply chains into illicit markets through theft, illegal resale, misuse or unauthorised redistribution, increasing the availability of regulated chemical products outside approved channels.	**Limited customs intelligence and data visibility** Limited international information sharing, customs intelligence and reliance on risk-based inspections constrain the detection of sophisticated customs fraud, illicit trade routes and complex transhipment arrangements.
Informal and unauthorised distribution networks Informal distributors, cross-border traders and unauthorised dealers facilitate the widespread distribution of illicit chemical products, making enforcement and product traceability more difficult.	**Limited post-market surveillance** Resource constraints reduce routine market surveillance, product testing and compliance monitoring, allowing counterfeit, adulterated and non-compliant chemical products to remain in circulation before detection.
Growth of online sales channels E-commerce platforms, social media marketplaces and other digital sales channels increasingly facilitate the marketing and distribution of chemical products through channels that are more difficult to monitor and regulate.	

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 3 – Structural Characteristics Reinforcing Illicit Trade	
Information asymmetry Many purchasers cannot readily verify the authenticity, composition or regulatory compliance of chemical products prior to purchase.	**Limited awareness and reporting** Counterfeit and non-compliant chemical products are often under-reported, limiting intelligence available to enforcement agencies.
Wide product diversity and technical complexity The broad range of chemical products, applications and regulatory requirements makes monitoring and enforcement inherently more challenging.	**Cross-border regulatory inconsistencies** Differences in regulatory standards, registration systems and enforcement capacity across neighbouring countries create opportunities for regulatory arbitrage and illicit trade.

Sources: UNICRI; OECD; TRACIT; WCO; CropLife; relevant industry and regulatory literature.

Note: The chemicals sector exhibits a more complex set of structural drivers than many other sectors due to its broad product base, diverse end users and fragmented regulatory environment. Regulatory cost avoidance, weak enforcement, import dependence and complex global supply chains represent the principal drivers of illicit trade, while additional structural characteristics, including information asymmetries, product complexity and cross-border regulatory inconsistencies, reinforce the persistence of illicit activity across multiple chemical product categories.

The Illicit Chemicals Supply Chain | Five-stage Flow

1 MANUFACTURE & SOURCE

Manufacture & Source — PRIMARY ORIGIN OF ILLICIT CHEMICALS

KEY ACTORS
Counterfeit manufacturers · Unlicensed chemical producers · Legitimate manufacturers operating outside regulatory controls · Organised criminal networks · Offshore manufacturers (predominantly Asia)

SUPPLY MODEL
Illicit chemicals originate through counterfeit production, adulteration, illegal manufacturing, unregistered production or the diversion of legitimate chemicals from authorised supply chains. The principal products include pesticides, fertilisers, industrial chemicals, plastics, solvents and other regulated chemical products.

ENFORCEMENT IMPLICATION
Requires international regulatory cooperation, manufacturer inspections, product registration systems, intellectual property enforcement and cross-border intelligence sharing to disrupt production at source.

2 INTERNATIONAL TRADE, TRANSSHIPMENT & BORDER ENTRY

Importation, Transshipment and Cross-Border Movement — CROSS-BORDER MOVEMENT

KEY ACTORS
Importers · Customs brokers · Freight forwarders · Shipping companies · Organised criminal networks

SUPPLY MODEL
Illicit chemicals frequently move through intermediary trading hubs before entering South Africa. Transshipment, re-exporting, origin concealment, re-invoicing, false declarations and under-invoicing obscure product origin, weaken audit trails and facilitate customs fraud prior to border entry. Products enter South Africa through containerised imports, cross-border road transport and courier shipments.

ENFORCEMENT IMPLICATION
Requires customs risk profiling, mirror trade analysis, container inspections, intelligence-led targeting, origin verification, integrity controls and anti-corruption measures, together with coordinated enforcement between SARS, the Border Management Authority (BMA), SAPS and other regulatory authorities.

3 WAREHOUSING, DIVERSION & REDISTRIBUTION

Warehousing, Diversion & Redistribution — POST-BORDER DISTRIBUTION

KEY ACTORS
Informal wholesalers · Unauthorised distributors · Warehouse operators · Organised distribution networks

SUPPLY MODEL
Illicit chemicals move through warehouses and wholesale networks where legitimate and illicit products may be mixed. Products may be illegally relabelled, repackaged, diluted or diverted before onward distribution. Digital sales channels increasingly complement traditional distribution networks, making product traceability more difficult.

ENFORCEMENT IMPLICATION
Requires distributor licensing audits, warehouse inspections, inventory reconciliation, post-clearance customs audits, product traceability systems and coordinated market intelligence across regulatory agencies.

4 RETAIL, COMMERCIAL & DIRECT DISTRIBUTION

Multiple Routes to End Users — FINAL DISTRIBUTION CHANNELS

Channel 1: Unauthorised distributors & agricultural dealers
Manufacturer / Importer → Unauthorised distributor → Business / Farmer / Consumer

Illicit chemicals are supplied through unauthorised distributors and agricultural dealers that operate outside approved supply chains. Common for pesticides, fertilisers and selected industrial chemicals.

Channel 2: Informal retail markets
Wholesaler → Informal trader / Small retailer → Consumer

Decanted "street pesticides", repackaged chemicals and other non-compliant products are commonly sold through informal retail channels, particularly in lower-income and rural markets.

Channel 3: Online platforms & direct delivery
Offshore supplier / Distributor → Online marketplace / Social media → Courier → Customer

Increasing use of e-commerce platforms, online marketplaces and social media to market and distribute chemical products directly to end users. Small consignments and courier deliveries reduce the likelihood of detection.

ENFORCEMENT IMPLICATION
Requires retailer inspections, online marketplace monitoring, verification of product registration, laboratory testing, undercover market surveillance and parcel targeting for high-risk consignments.

5 END USE & SECONDARY ILLICIT DISTRIBUTION

Final Use of Illicit Chemicals — FINAL USE OF ILLICIT CHEMICALS

PRIMARY USERS
Farmers · Industrial manufacturers · Mining operations · Construction companies · Households

SUPPLY MODEL
Illicit chemicals are ultimately used by agricultural, industrial, commercial and household end users. Some products are subsequently diverted, diluted, illegally blended or repackaged into secondary illicit supply chains, extending the circulation of non-compliant products within the domestic market.

ENFORCEMENT IMPLICATION
Requires end-user inspections, licence compliance monitoring, product traceability, suspicious activity reporting, awareness programmes and coordinated market surveillance to reduce secondary diversion and improve regulatory compliance.

Source: United Nations Interregional Crime and Justice Research Institute, Illicit Pesticides, Organized Crime and Supply Chain Integrity · Organisation for Economic Co-operation and Development, Best Practice Guidance to Identify Illegal Trade of Pesticides · World Customs Organization guidance on customs risk management and illicit trade · CropLife International publications on counterfeit and illegal pesticides · relevant industry and regulatory literature

SCALE OF ILLICIT CHEMICALS TRADE IN SA – PENETRATION RATE

Methodological Approach

Direct measurement of illicit trade is inherently difficult because the activity is deliberately concealed through customs fraud, product misdeclaration, counterfeiting, diversion, illegal repackaging and informal distribution channels. The standard approach – adopted by organisations such as the OECD, UNODC and the World Customs Organisation (WCO), and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate multiple independent indicators, each capturing a different dimension of illicit activity.

No single methodology provides a complete measure of illicit chemicals trade. Instead, the objective is to assess whether different quantitative and qualitative indicators converge on a plausible range for illicit market penetration in South Africa's chemicals sector.

Unlike many consumer goods sectors, the chemicals industry encompasses a diverse range of industrial, agricultural and commercial products with multiple end users and highly complex domestic and international supply chains. Illicit activity extends beyond counterfeit products to include customs fraud, undeclared imports, diversion of legitimate chemicals, adulteration, illegal repackaging and the distribution of unregistered or non-compliant products. These characteristics add uncertainty to penetration estimates and require multiple complementary estimation approaches.

This analysis estimates illicit chemicals trade penetration using four complementary benchmarks.

APPROACH	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror Trade Analysis	Potential import undervaluation, customs misdeclaration and undeclared imports	UN Comtrade / ITC Trade Map	Primary quantitative indicator of potential import-related irregularities and customs fraud.
2. Supply-Use Table Benchmark	Directional indication of non-observed domestic production and supply	Statistics South Africa Supply-Use Tables	Secondary cross-check of domestic non-observed activity and structural characteristics of the chemicals market.
3. International Benchmarking	Plausible penetration ranges observed in comparable international chemicals and pesticides markets	OECD, UNICRI, TRACIT, CropLife, Europol and other international studies	Provides a plausibility check against international evidence and comparable markets.

Taken together, these methods distinguish between:

- **illicit market entry**, reflected primarily in customs and trade-based indicators;
- **domestic non-observed production**, captured through the Supply-Use Tables; and
- **overall market penetration**, reflected in international benchmarking and domestic industry evidence.

The final penetration range is derived from the convergence of these complementary methods. It should be interpreted as a **directional, evidence-based estimate** of illicit chemicals trade in South Africa rather than a precise measure of the illicit market.

Estimating the Chemicals Market Size

Direct measurement of the South African chemicals market is complicated by the breadth of products covered, the predominance of intermediate industrial demand and the absence of a single official dataset that matches the

product scope analysed in this study. Unlike consumer goods sectors, retail sales are not an appropriate proxy because most **chemical products are sold to industrial, agricultural and commercial users rather than directly to households.**

This analysis therefore uses Statistics SA's Supply-Use Tables (SUTs) as the primary basis for estimating the domestic chemicals market. The SUTs provide the most comprehensive measure of domestic supply and use available, reconciling local production, imports and intermediate and final demand within a nationally consistent accounting framework.

The market estimate is based on P41 (Basic chemicals, fertilisers and pesticides) and P45 (Chemicals n.e.c.), which together provide the closest approximation to the product scope covered in this study (plastics and rubber products are excluded).

The analysis uses domestic use (~demand) as the primary market denominator. In the chemicals sector, demand is overwhelmingly driven by intermediate industrial consumption rather than household expenditure. In the chemicals sector, demand is overwhelmingly driven by intermediate industrial use, with household consumption accounting for only a small share of total demand.

Consequently, total industry (intermediate) use is the most appropriate proxy for the domestic chemicals market and serves as the principal denominator throughout the penetration analysis.

Using the five-year average of the published Supply-Use Tables (2018–2022) yields an estimated South African chemicals market of approximately R227 billion, which is used as the primary denominator throughout the penetration analysis.

Table 5: Estimated Chemicals Market Size - South Africa

YEAR	INDUSTRY USE
2018	R201.4bn
2019	R205.7bn
2020	R208.5bn
2021	R241.8bn
2022	R276.1bn
Average (2018–2022)	R226.7bn

Source: Statistics SA Supply-Use Tables (2018–2022); own calculations.

The estimated R227 billion market represents the broad domestic chemicals market covered by this study and is used as the principal denominator in the illicit trade penetration analysis. While the product coverage does not perfectly correspond to the HS codes used in the mirror trade assessment, the Supply-Use Tables provide the most comprehensive and internally consistent measure of domestic market size available.

The mirror trade analysis is therefore interpreted as a lower-bound indicator of import-related irregularities within this broader chemicals market. At the same time, the Supply-Use Table benchmark and international evidence provide complementary cross-checks in deriving the final penetration range.

Method 1: Mirror Trade Analysis[12]

Conceptual basis

Mirror trade analysis compares reported exports with recorded imports to identify discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate under-recording of imports or other border-related irregularities.

These results should be interpreted as an indicator of potential irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains.

While international comparisons typically contrast free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 – see footnote). This removes the standard valuation-driven gap associated with freight and insurance, making observed discrepancies more informative – though not definitive – of underlying trade frictions or potential misreporting.[13]

These results should be interpreted as an indicator of potential customs and trade-related irregularities rather than a direct measure of illicit trade. In the chemicals sector, illicit activity extends beyond customs fraud to include counterfeit and unregistered products, product diversion, illegal repackaging and adulteration, many of which are not fully captured through trade statistics alone.

HS code coverage

The mirror trade analysis focuses on the principal HS categories corresponding to the chemical products covered in this study and where customs fraud, import misdeclaration and other border-related irregularities are most likely to occur.

HS CODE	PRODUCT CATEGORY
28	Inorganic chemicals; organic or inorganic compounds of precious metals, rare-earth metals, radioactive elements or isotopes
29	Organic chemicals
31	Fertilisers
3808	Insecticides, rodenticides, fungicides, herbicides, plant-growth regulators, disinfectants and similar products
32	Tanning and dyeing extracts; pigments, colouring matter, paints, varnishes, mastics and inks
3901–3914	Plastics in primary forms
4002	Synthetic rubber and factice, in primary forms

These categories encompass the principal upstream chemical products analysed in this report and account for the majority of South Africa's trade in the selected chemical product groups.

The selected HS codes capture product groups that are particularly susceptible to customs fraud, import undervaluation, misdeclaration, smuggling and the cross-border movement of counterfeit or unregistered chemical

[12] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[13] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

products. Fertilisers and pesticides (HS 31 and HS 3808) are also internationally recognised as product categories vulnerable to illicit trade, including counterfeit, unauthorised and illegally imported products.

Downstream manufactured chemical products are excluded from the core mirror trade analysis. In particular, manufactured plastics, rubber products, pharmaceuticals, cosmetics and other chemical-based manufactured goods are considered separately elsewhere in this report or fall outside the defined scope of the chemicals sector. Restricting the analysis to upstream chemical products improves consistency between the HS code coverage and the product categories analysed throughout this chapter while reducing the risk of double counting across sectors.

China–South Africa Chemicals trade corridor

The mirror trade analysis focuses on the China–South Africa trade corridor because China is the world's largest producer and exporter of a wide range of chemical products, including organic and inorganic chemicals, plastics in primary forms, pesticides and numerous chemical intermediates. China is also consistently identified in international studies by the OECD, UNICRI, Europol and TRACIT as a significant source of counterfeit, unregistered and illicitly traded chemical products.

Based on UN Comtrade import data for 2018–2025, China is the largest import source for organic chemicals (HS 29), tanning and dyeing extracts (HS 32), pesticides and related products (HS 3808), plastics in primary forms (HS 3901–3914) and synthetic rubber (HS 4002). For inorganic chemicals (HS 28) and fertilisers (HS 31), China is the second-largest supplier, yet it still accounts for a significant share of South Africa's imports.

China is therefore an appropriate focus for the mirror trade assessment.

Although illicit chemicals may also enter South Africa through intermediary trading hubs, re-export centres or third countries, the China–South Africa trade corridor captures the principal manufacturing origin for the chemical products analysed. Accordingly, the resulting mirror trade estimates should be interpreted as a conservative lower-bound indicator of potential import-related irregularities rather than a comprehensive estimate of total illicit chemicals trade.

Table 6: China's Share of South Africa's Chemicals Imports by HS Code, 2018–2025 Average

HS CODE	PRODUCT DESCRIPTION	CHINA'S SHARE OF SA IMPORTS OF EACH HS CODE
28	Inorganic chemicals	17%
29	Organic chemicals	39%
31	Fertilisers	11%
3808	Pesticides and related products	31%
32	Tanning and dyeing extracts, pigments, paints and inks	13%
3901–3914	Plastics in primary forms	22%
4002	Synthetic rubber	10%

Source: ITC TradeMap

Mirror trade results

Table 7: China–South Africa Chemicals Trade: Mirror Analysis and Import Discrepancies (2018–2025)

HS CODE	PRODUCT CATEGORY	CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP: EXPORTS –IMPORTS (USD)	GAP (RAND)	GAP AS % OF EXPORTS
28	Inorganic chemicals	US$197.8m	US$247.7m	–US$49.9m	–R810.0m	–25%
29	Organic chemicals	US$536.7m	US$601.4m	–US$64.7m	–R1.05bn	–12%
31	Fertilisers	US$85.6m	US$97.1m	–US$11.5m	–R186.8m	–13%
3808	Pesticides and related products	US$149.0m	US$163.0m	–US$13.9m	–R226.3m	–9%
32	Tanning and dyeing extracts, pigments, paints and inks	US$77.6m	US$69.7m	US$7.9m	R128.6m	10%
3901–3914	Plastics in primary forms	US$208.8m	US$200.4m	US$8.4m	R136.9m	4%
4002	Synthetic rubber	US$11.6m	US$11.0m	US$0.5m	R8.8m	5%
Total	All analysed HS codes	US$1.3bn	US$1.4bn	–US$123.1m	–R2.0bn	–10%

Source: ITC TradeMap, Comtrade, own calculations

Across the seven analysed chemical product groups, four HS categories (HS 28, HS 29, HS 31 and HS 3808) exhibit negative mirror trade gaps, indicating that South Africa records higher imports from China than China reports exporting to South Africa. These discrepancies do not provide evidence of import under-recording on the South African side and are therefore not indicative of illicit trade in the conventional mirror trade sense.

The aggregate China–South Africa mirror trade gap is negative (approximately US$123 million or R2.0 billion), driven primarily by organic chemicals (HS 29) and inorganic chemicals (HS 28). This pattern is consistent with a combination of legitimate statistical factors, including reporting differences, timing effects, product classification differences and the routing of Chinese-origin chemicals through intermediary trading hubs before entering South Africa.

Only three product groups **exhibit positive mirror trade gaps**: tanning and dyeing extracts (HS 32), plastics in primary forms (HS 3901–3914) and synthetic rubber (HS 4002). These positive discrepancies, amounting to approximately US$16.9 million (R274 million) in total, are consistent with the conventional mirror trade interpretation of exports exceeding recorded imports and therefore provide a conservative lower-bound indicator of potential customs-related irregularities within the China trade corridor.

Overall, the mirror trade analysis provides limited evidence of widespread customs under-recording across the chemicals sector. This finding is consistent with the broader characteristics of illicit chemicals trade, where a significant proportion of illicit activity occurs through mechanisms that are not readily detected by mirror trade analysis, including counterfeit and unregistered products, product diversion, adulteration, illegal repackaging and domestic distribution outside formal supply chains.

Consequently, the mirror trade analysis is interpreted as one component of the broader triangulation methodology rather than a standalone estimate of illicit market penetration.

Mirror-Trade Bounds and Adjustment Framework

Noise discount framework

Several structural factors can generate bilateral trade discrepancies independently of illicit activity, including re-export routing through intermediary trading hubs, timing differences in customs reporting, classification mismatches and valuation differences between reporting authorities.

In the chemicals sector, these effects are amplified by complex global supply chains, multi-stage processing and the widespread use of regional distribution hubs.

Table 8: Potential non-fraud contributors to bilateral trade gaps

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export routing through intermediary trading hubs	Reduces apparent SA imports from China	Significant – chemical products are frequently routed through regional logistics and distribution centres before reaching South Africa, weakening direct bilateral comparisons.
Trade recording timing differences	Minor bilateral misalignment	Small effect – timing differences may affect individual shipments but are unlikely to explain persistent multi-year discrepancies.
HS classification and reporting differences	Creates HS-level discrepancies	Moderate – broad chemical product categories and differing customs classification practices can contribute to statistical differences.
Valuation differences and customs treatment	Affects recorded import values	Moderate – differences in customs valuation, product specification and reporting practices may influence bilateral trade statistics.
Undervaluation and customs misdeclaration	Reduces recorded import values	Relevant – customs undervaluation and product misclassification are recognised risks within international chemicals trade, particularly for higher-value speciality chemicals and pesticides.

These factors are unlikely to explain the entire observed discrepancy but introduce statistical noise that should be considered when interpreting mirror-trade estimates. International studies by the OECD and Global Financial Integrity commonly apply noise discounts of between 20% and 60%, depending on the characteristics of the sector.

Given that chemicals are traded predominantly through formal commercial supply chains, with comparatively limited informal cross-border trade relative to sectors such as clothing or tobacco, a 20% noise discount is the preferred central estimate. In comparison, 30% is used as a conservative sensitivity scenario.

However, the chemicals sector exhibits an overall negative China–South Africa mirror-trade gap, indicating that South Africa records higher imports from China than China reports exporting to South Africa.

Consequently, the China corridor does not provide evidence of widespread import under-recording and cannot be extrapolated across all import corridors.

Instead, the mirror-trade assessment focuses only on the three HS categories exhibiting positive bilateral gaps (HS 32, HS 3901–3914 and HS 4002), which together provide a conservative lower-bound indicator of potential customs-related irregularities.

Table 9: Mirror-Trade Matrix – Average Annual, 2019–2025 - Summary

METHOD	GROSS GAP	ADJUSTMENT	ADJUSTED ILLICIT ESTIMATE	ESTIMATED CHEMICALS MARKET	IMPLIED PENETRATION RATE
CHINA CORRIDOR ONLY; *THREE* HS CODES					
Raw positive gap	R274.3m	**None**	R274.3m	R226.7bn	0.12%
20% noise discount	R274.3m	**–20%**	R219.0m	R226.7bn	0.10%
30% noise discount	R274.3m	–30%	R192.0m	R226.7bn	0.08%
40% noise discount	R274.3m	–40%	R164.6m	R226.7bn	0.07%

Source: ITC TradeMap, Stats SA, UN Comtrade; own calculations.

The mirror-trade methodology suggests only a very small level of observable customs-related irregularities within the China trade corridor, equivalent to approximately 0.06%–0.12% of the estimated domestic chemicals market after applying standard noise adjustments.

➔ **Interpreting the bounds**

Because the mirror-trade analysis covers only selected HS categories within the China corridor, and the overall bilateral gap is negative, the resulting estimates are **not interpreted as measures of total illicit chemicals trade penetration**. Rather, they provide a **conservative lower-bound indicator of observable customs-related irregularities**.

This finding should **not** be interpreted as indicating that illicit chemicals trade is insignificant. Instead, it reflects the limitations of bilateral mirror-trade analysis for the chemicals sector. Much of the illicit activity identified elsewhere in this report–including counterfeit and unregistered chemicals, product diversion, adulteration, illegal repackaging and other forms of regulatory non-compliance–is not directly observable through customs mirror statistics.

Accordingly, the mirror-trade analysis is treated as one component of the broader triangulation framework rather than a standalone measure of illicit trade. The final penetration estimate therefore combines the mirror-trade results with the Supply-Use Table benchmark, international benchmarking and available industry evidence.

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Method 2: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic (NOE) activity, including informal, unrecorded and potentially illicit production and consumption, making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

For the chemicals sector, the benchmark is based on P41 (Basic chemicals, fertilisers and pesticides) and P45 (Chemicals n.e.c.), which together provide the closest available approximation to the product scope covered in this study. Plastics and rubber products are excluded, as these predominantly comprise downstream manufactured products rather than plastics and synthetic rubber in primary forms.

Interpreting the NOE supply figure

The SUT estimates a non-observed economy (NOE) supply representing production entering the market through informal, unregistered or otherwise unrecorded channels. However, the NOE supply is not synonymous with illicit trade. Rather, it comprises a mixture of informal, undeclared and illicit activity.

COMPONENT	ILLICIT?
Unregistered small-scale chemical producers	Not necessarily – informal but potentially legal
Undeclared production by registered manufacturers	Tax evasion – illicit
Counterfeit, adulterated or unregistered chemical products	Illicit
Diverted or smuggled chemicals entering domestic supply	Illicit
Household production	Negligible

Unlike consumer goods sectors, **legitimate informal production within the chemicals industry is relatively limited** because of the technical complexity of production processes, hazardous material handling requirements and the need to comply with environmental, occupational health and product registration regulations.

Nevertheless, the NOE supply estimate should not be interpreted as representing the full extent of illicit chemicals trade.

The Supply-Use Tables primarily capture domestic non-observed production and do not comprehensively reflect illicit imports, customs fraud, counterfeit imported products or the diversion of legitimate imported chemicals into illicit markets.

Consequently, the NOE supply is best interpreted as a lower-bound indicator of domestic non-observed activity, rather than a measure of total illicit market penetration.

Table 10: Stats SA Supply-Use Table – P41 and P45 Chemicals, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R271.6bn	R276.7bn	R285.8bn	R338.5bn	R386.1bn	R311.8bn
Total industry (intermediate) use	R201.4bn	R205.7bn	R208.5bn	R241.8bn	R276.1bn	R226.7bn
Household consumption	R5.0bn	R5.1bn	R4.1bn	R4.4bn	R4.4bn	R4.6bn
Non-observed use	R6.7bn	R6.9bn	R5.7bn	R7.0bn	R6.9bn	R6.7bn
Non-observed supply	R1.2bn	R1.3bn	R1.2bn	R1.3bn	R1.5bn	R1.3bn
NOE supply as % of industry use	0.6%	0.6%	0.6%	0.5%	0.5%	0.6%

Source: Statistics South Africa Supply-Use Tables 2018–2022; own calculations. P41 covers basic chemicals, fertilisers and pesticides, while P45 covers chemicals n.e.c.

The ratio of NOE supply to industry use remains remarkably stable over the five-year period, ranging between 0.5% and 0.6%, with a five-year average of 0.6%. This consistency suggests that the benchmark is not driven by anomalies in any single year and provides a reliable indicator of domestic non-observed production.

A further structural insight: the NOE consumption gap

The use table provides an additional structural perspective.

Average non-observed use amounted to approximately R6.7 billion per year over 2018–2022, substantially exceeding the estimated non-observed domestic supply of approximately R1.3 billion per year.

The resulting gap of approximately R5.4 billion suggests that a significant proportion of non-observed chemical consumption is not supplied by domestic non-observed production.

Instead, a substantial share is likely to originate through import-related channels, including customs fraud, smuggling, counterfeit imports, product diversion and other forms of illicit cross-border trade before being distributed through informal or unauthorised supply chains.

This finding is consistent with the broader evidence presented in this report, which identifies South Africa's illicit chemicals market as predominantly import- and distribution-driven rather than domestically production-driven.

Accordingly, the Supply-Use Table benchmark is not used as a standalone estimate of illicit market penetration. Rather, it provides an independent domestic cross-check that complements the mirror trade analysis and international benchmarking. Together, these methods provide a more comprehensive assessment of the likely scale of illicit trade in South Africa's chemicals sector.

Method 3: International Benchmarking

International benchmarking for the chemicals sector is necessarily product-specific. Unlike sectors such as cosmetics or tobacco, no internationally recognised estimates exist for illicit trade across the chemicals sector as a whole.

Consequently, this benchmark focuses on pesticides, the chemical product category with the most robust international evidence, and the one the sector risk assessment presented earlier in this chapter identifies as one of the highest-risk forms of illicit chemicals trade in South Africa.

The benchmark should therefore be interpreted as a plausibility check for the sector's highest-risk product category rather than a direct estimate of overall chemicals-sector penetration.

Table 11: International Benchmarks for Illicit Pesticides Trade (Selected Markets)

Source	Estimate	Interpretation
OECD	~10% (global)	Approximately 10% of global agrochemical trade is estimated to be illegal, up from an estimated 5%–7% in 2007
European Commission (DG-SANTE)	~10% (EU)	Most recent published European Commission estimate (2015)
Pesticide Atlas / Heinrich Böll Foundation	~14% (EU)	2022 EU-wide estimate, independently consistent with EUIPO's 2017 figure below
Europol	10%–25%	Contraband and counterfeit pesticide estimates
EUIPO	13.8% revenue loss (~€1.3bn/year)	Economic impact study, 2017
Europol – Silver Axe seizures	1,150t (2022) → 2,040t (2023)	Most current data point available; directional evidence of a rising, not declining, trend
CropLife International (India)	~25%–30%	National industry estimate
CropLife International (sub-Saharan Africa)	15%–20% (hotspots 40%–80%)	Regional industry association surveys

Sources: OECD; European Commission; Heinrich Böll Foundation; Europol; EUIPO; CropLife International.

International evidence consistently shows that illicit pesticides are one of the most significant forms of illicit chemicals trade globally. Across developed and developing markets, estimated penetration rates generally range from approximately 10% to 25%, with substantially higher levels reported in markets with weaker regulatory systems and enforcement capacity.

The two most recent independent EU estimates – EUIPO's 13.8% (2017) and the Pesticide Atlas's approximately 14% (2022) – converge closely, reinforcing the stability of the lower end of the international benchmark range, while Europol's rising seizure volumes (2022–2023) indicate the problem is not diminishing. These estimates are materially higher than the lower-bound indicators produced by the mirror trade and Supply-Use Table analyses, reinforcing the conclusion that those methodologies capture only a portion of total illicit chemicals trade.

This is consistent with the nature of illicit pesticides, which frequently involve counterfeit, adulterated, illegally repackaged and unregistered products circulating within domestic distribution networks rather than being identifiable through customs statistics alone.

Although pesticides represent only one component of the chemicals sector, they consistently emerge internationally as the product category most susceptible to illicit trade, making them an appropriate reference point for assessing the plausibility of South Africa's broader illicit chemicals challenge.

These benchmarks should therefore be interpreted as contextual evidence supporting the plausibility of materially higher illicit penetration than suggested by the mirror-trade and Supply-Use Table benchmarks. They are not directly comparable with the broad P41/P45 market denominator used elsewhere in this chapter and should not be extrapolated to overall chemicals-sector penetration.

Penetration Rate Matrix: Triangulated outcome

Unlike sectors where multiple independent methods converge on a relatively narrow range, the chemicals sector produces two complementary tiers of evidence: South African quantitative indicators that are structurally narrow in scope, and an international, product-specific benchmark that sits materially higher. This divergence reflects genuine differences in what each method measures, rather than measurement error.

- The **mirror trade analysis** (China corridor, three HS categories with positive bilateral gaps only: HS32, HS3901–3914, HS4002) provides an observable lower bound of 0.07%–0.12%, reflecting only the narrow segment of trade where under-recording is directly detectable through customs statistics.
- The **Stats SA SUT benchmark** of 0.5%–0.6% – stable across five years of official national accounts data – captures domestic non-observed production only. Because legitimate and illicit informal chemical manufacturing is structurally limited by the sector's technical complexity, this figure is a floor for domestic production activity, not a ceiling on total illicit penetration.
- **International benchmarks for pesticides** – the chemical product category most consistently identified internationally as susceptible to illicit trade – generally range from 10% to 25%, corroborated by two independent, recent EU estimates (EUIPO 13.8%, Pesticide Atlas ~14%) that converge closely. These benchmarks apply to a narrow product subset of the sector and are not extrapolated to the R226.7bn P41/P45 market as a whole.

Measured evidence

Both South African quantitative indicators fall below 1%, but each measures a structurally narrow slice of the market – a single trade corridor's positive-gap segment and domestic non-observed production only.

Neither captures the counterfeit, adulterated, unregistered, diverted or smuggled products that this chapter's own risk assessment identifies as the dominant channels of illicit chemicals trade.

Likewise, the international pesticides benchmark (10%–25%) cannot be used to close this gap numerically, as it relates only to a single high-risk product category rather than the chemicals sector as a whole.

Table 12: Measured Evidence – Illicit Chemicals Trade Indicators (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR†	ILLICIT PENETRATION RATE
PANEL A – CHINA CORRIDOR (HS32, HS3901–3914, HS4002 ONLY) ‡ **Conservative lower bound/floor**					
Mirror trade – raw positive gap	R274.3m	None	R274.3m	R226.7bn	0.12%
Mirror trade – 20% discount	R274.3m	−20%	R219.0m	R226.7bn	0.10%
Mirror trade – 30% discount	R274.3m	−30%	R192.0m	R226.7bn	0.08%
Mirror trade – 40% discount	R274.3m	−40%	R164.6m	R226.7bn	0.07%
PANEL B – SUPPLY-USE TABLE BENCHMARK **Domestic production floor**					
SUT NOE domestic supply§	R1.3bn	No adjustment	R1.3bn	R226.7bn	0.6%
PANEL C – CORROBORATING BENCHMARK* **Pesticides sub-segment only – contextual, not sector-wide**					
OECD (global)					~10%
European Commission – DG-SANTE (EU)					~10%
Pesticide Atlas/Heinrich Böll Foundation (EU)					~14%
Europol					10%–25%
EUIPO (EU revenue-loss basis)					13.8%
CropLife International (India / sub-Saharan Africa)					15%–30%

† Market denominator (R226.7bn) = five-year average total industry (intermediate) use for P41 (basic chemicals, fertilisers and pesticides) and P45 (chemicals n.e.c.), 2018–2022. Source: Statistics South Africa Supply-Use Tables. Applied consistently across Panels A and B.

‡ Panel A reflects only the three HS categories (HS32, HS3901–3914, HS4002) exhibiting positive bilateral trade gaps within the China–South Africa corridor, out of seven HS categories analysed. The remaining four (HS28, HS29, HS31, HS3808) show negative gaps and therefore do not indicate import under-recording. See Table 3 and Table 6 for the full mirror trade matrix.

§ SUT NOE domestic supply (R1.3bn) = five-year average non-observed supply for P41 and P45, 2018–2022, Stats SA Supply-Use Tables (Supply table), set against the same industry-use denominator as Panel A. This figure reflects domestic non-observed production only and does not capture illicit imports, customs fraud or counterfeit imported products. See Table 7.

**Panel C estimates relate to the pesticides sub-segment only, not the R226.7bn P41/P45 chemicals market – a different, narrower denominator to Panels A and B. Sourced from OECD, European Commission (DG-SANTE), Heinrich Böll Foundation (Pesticide Atlas), Europol, EUIPO and CropLife International. Structural/contextual indicator only; not incorporated into the Panel A/B penetration estimates.*

From measured evidence to modelling assumption

The South African quantitative methods establish a conservative lower bound on measurable illicit chemicals activity, while the international pesticides evidence demonstrates that illicit penetration can be materially higher in the sector's highest-risk product categories. Economic impact modelling requires a single penetration rate as an input parameter. Where empirical evidence establishes a range but not a directly measurable sector-wide estimate, economic impact studies commonly adopt an evidence-informed modelling assumption, provided that both the assumption and its rationale are stated transparently.

The working estimate is not derived mechanically from the preceding evidence. Rather, it represents an evidence-informed modelling assumption adopted for economic impact analysis.

A **working estimate of 3%** has therefore been adopted because it materially exceeds the measurable South African floor, recognising the contribution of illicit imports, diversion, counterfeit, adulterated and unregistered products that are not captured by the mirror-trade or Supply-Use Table methodologies, while remaining substantially below the international pesticides benchmark (10%–25%), which relates only to the sector's highest-risk product category.

The estimate is deliberately conservative and should be interpreted as an evidence-informed modelling assumption rather than a statistically derived point estimate. The true sector-wide rate is expected to lie above the SA-specific floor and below the pesticides-only ceiling; the working estimate is positioned accordingly, well within that span rather than anchored to either extreme.

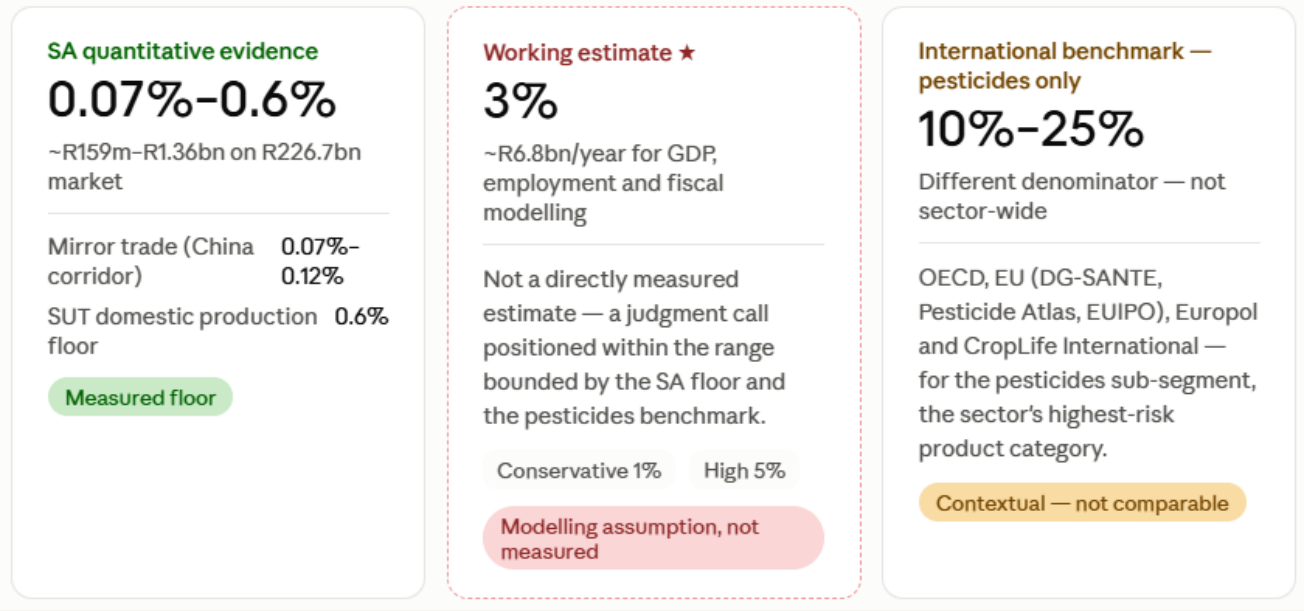


Table 13: Working Penetration Rate Assumptions Adopted for Economic Impact Modelling

Scenario	Penetration rate	Basis
Conservative	1%	Conservative modelling assumption recognising additional illicit activity beyond the measurable South African floor
Base case / Working estimate ★	3%	Evidence-informed modelling assumption (not directly measured), adopted for GDP, employment and fiscal impact modelling
High sensitivity	5%	Upper sensitivity assumption remaining materially below the pesticides-specific international benchmark

★ For the purposes of economic impact quantification, a working penetration rate of 3% has been adopted for all GDP, fiscal and employment impact modelling. This reflects an evidence-informed modelling assumption rather than a statistically derived estimate: it materially exceeds the measurable South African floor (0.07%–0.6%, Table 9, Panels A–B), recognising the contribution of illicit imports, diversion, counterfeit, adulterated and unregistered products not captured by the mirror trade or SUT methodologies, while remaining substantially below the international pesticides benchmark (10%–25%, Table 9, Panel C), which relates only to the sector's highest-risk product category. Sensitivity analysis uses alternative penetration rates of 1% and 5%.

The modelling range (1%–5%) is intentionally narrower than the full evidentiary range (0.07%–25%). The upper end of the evidentiary range relates exclusively to pesticides – the highest-risk product category – and is therefore not considered representative of the broader chemicals sector. The selected modelling range is intended to provide conservative sensitivity bounds for the economic impact analysis rather than replicate the full uncertainty reflected in the underlying evidence.

Table 12 presents the empirical evidence underpinning the analysis, while **Table 13** presents the modelling assumptions adopted for the economic impact assessment. The latter should therefore be interpreted as evidence-informed analytical assumptions rather than direct statistical estimates.

ECONOMIC IMPACT AND OPPORTUNITY COST OF ILLICIT CHEMICALS TRADE IN SOUTH AFRICA



The Chemicals Sector's Value Chain and Economic Linkages

South Africa's chemicals sector is a broad and strategically important industry, supplying critical inputs to agriculture, mining, manufacturing, construction, healthcare, energy and consumer markets.

The sector encompasses basic organic and inorganic chemicals, fertilisers and pesticides, plastics, synthetic rubber, chemical products and artificial fibres.

- Upstream, the sector relies on a combination of domestic production and imported chemical inputs, raw materials and intermediate products. These feed into the manufacture, formulation, blending and processing of products ranging from fertilisers, pesticides and industrial chemicals to plastics and other chemical products. South Africa has a relatively diversified chemicals industry and serves as an important regional manufacturing, import and distribution hub.

  The sector is highly integrated with downstream economic activity, with chemical products serving as essential inputs into numerous industries. This creates extensive economic linkages beyond the chemicals industry itself, with disruptions in the supply of compliant chemicals potentially affecting agricultural productivity, mining, manufacturing, food security and other downstream activities.

- Downstream, chemicals are distributed through a combination of formal manufacturers, importers, wholesalers, authorised distributors, commercial users and, increasingly, informal and online channels. End users include farmers, households, commercial businesses and industrial purchasers, depending on the chemical product and application.

Overall, the chemicals sector forms a complex, internationally integrated value chain, linking global sourcing and imports with domestic manufacturing, formulation, distribution and end-use markets.

South Africa's substantial import dependence and extensive international trade links create multiple points at which illicit products can enter the domestic market.

Why the Value Chain Creates Exposure to Illicit Trade

> This structure is important in understanding the sector's vulnerability to illicit trade. Chemicals frequently move across multiple jurisdictions and through complex supply chains, while the technical nature of many products means that authenticity, composition and regulatory compliance cannot readily be verified through visual inspection.
>
> Illicit activity can therefore occur at multiple points, including through smuggling, misdeclaration and undervaluation of imports, counterfeit and adulterated products, unregistered or illegally repackaged chemicals, diversion of legitimate chemicals and parallel imports. These products can then enter formal, informal or online distribution channels, making detection and enforcement more difficult.

Economic Impact of Illicit Chemicals Trade

Introduction

Illicit chemicals trade imposes high economic costs on South Africa's formal chemicals sector. The working estimate of R6.8 billion reflects economic activity diverted away from compliant, tax-paying businesses and into illicit supply channels.

However, this does not translate directly into an equivalent loss of GDP, nor does it fully capture the broader economic consequences of illicit trade. This distinction is particularly important given the scale, diversity and import dependence of South Africa's chemicals sector.

The sector is a critical supplier of inputs to agriculture, mining, manufacturing, construction, healthcare, energy and other downstream industries. Consequently, illicit chemicals trade can affect not only chemical manufacturers and distributors, but also the broader industries and economic activity that depend on compliant chemical products.

Illicit imports can displace formal economic activity associated with manufacturing, importing, wholesale and distribution, logistics, compliance and related business services. Where illicit products compete directly with domestically manufactured chemicals, the impact is more pronounced, potentially suppressing production, investment and employment and weakening the competitiveness of legitimate chemical producers.

Beyond displaced sales, illicit trade undermines compliant businesses, creates unfair cost advantages for illicit operators, discourages investment and weakens industrial competitiveness. The sector is particularly exposed because illicit activity can involve counterfeit, adulterated and unregistered products, smuggling, customs fraud, misdeclaration and undervaluation, as well as the diversion of legitimate chemicals into illicit markets.

The economic impact of illicit chemicals trade operates through several interconnected channels:

- Displaced domestic production and processing – compliant chemical manufacturers can lose market share to counterfeit, adulterated, unregistered or unlawfully imported products, reducing production volumes and capacity utilisation;
- Reduced wholesale and distribution activity – formal businesses lose sales to illicit and unauthorised channels, reducing margins and economic activity within the formal value chain;
- Foregone tax revenue – customs duties, VAT and other taxes associated with displaced formal activity are lost to the fiscus;
- Employment and income losses – illicit trade displaces activity from formal value chains, reducing employment opportunities and income generation;
- Suppressed investment and industrial competitiveness – persistent illicit competition weakens incentives for investment, expansion, innovation and development of domestic chemical production capacity; and
- Customs fraud and organised illicit activity – illicit chemicals trade is facilitated by smuggling, misdeclaration, undervaluation, diversion and networks that exploit weaknesses in border controls and regulatory systems.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment, using the working estimate of R6.8 billion, with sensitivity analysis applied across the conservative 3% working estimate.

Broader structural impacts on investment, industrial development, downstream industries and long-term competitiveness are discussed qualitatively but are not directly quantified.

Methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and excludes broader economy-wide multiplier effects from the central estimates. While illicit trade may generate additional indirect and induced impacts through supply-chain linkages and reduced economic activity, quantifying these risks overlap and double-counting across sectors.

The approach therefore provides a conservative and transparent estimate of the direct economic and fiscal opportunity cost of illicit chemicals trade, rather than its full economy-wide impact.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Chemicals Trade

The chemicals sector generates approximately R13.6 billion in direct government revenue through VAT, customs duties, personal income tax and other activity-related taxes. Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.

Direct formal sector taxes — current

R13.6bn

Taxes on products (VAT, duties): R2.5bn (18.4%)
PIT → R8.4bn
Activity → R2.6bn

VAT / duties · PIT · Activity taxes

Potential tax revenue if illicit demand redirected to compliant operators

R13.8bn

Estimated direct government tax revenue if demand captured by illicit chemicals trade were fully redirected to compliant operators.

Direct tax loss from illicit trade

R219m

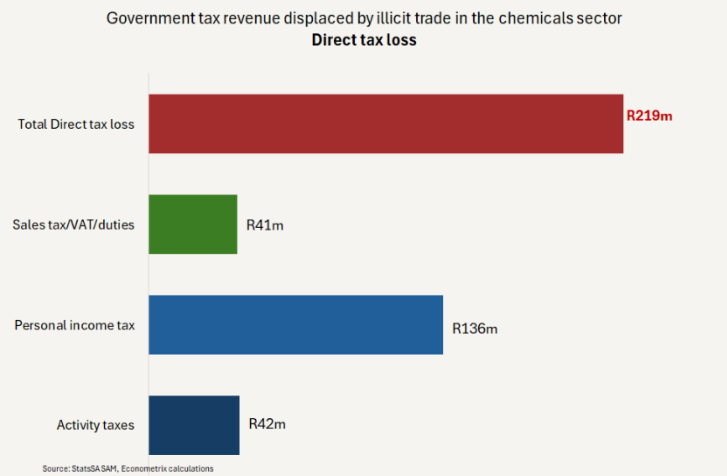
Taxes on products (VAT/duties): R41m (18.7%)
PIT → -R136m
Activity taxes → -R42m

VAT / duties (lost) · PIT · Activity taxes

The fiscal suppression effect

Based on the estimated size of the illicit chemicals market (approximately R6.8 billion), **illicit trade is estimated to result in around R219 million in direct tax losses annually.**

Consequently, direct tax revenue from the sector **could increase from approximately R13.6 billion currently to an estimated R13.8 billion** if the demand currently captured by illicit trade were redirected to compliant operators.



The largest component of the estimated tax loss is personal income tax, at approximately R136 million (62%)**.** Taxes on products account for approximately R41 million, while activity-related taxes contribute a further R42 million. These estimates reflect the broader economic and fiscal effects associated with illicit activity across the chemicals value chain.

The chemicals sector's exposure is particularly significant because illicit activity includes smuggling, customs fraud, misdeclaration and undervaluation of imports, as well as counterfeit, adulterated and unregistered products and the diversion of legitimate chemicals into illicit markets.

The fiscal argument for enforcement

The estimated R219 million annual tax loss highlights a clear fiscal opportunity to reduce illicit activity in the chemicals market. Given the sector's significant import flows, enforcement efforts should focus on **identifying high-risk shipments, detecting undervaluation and misclassification, and improving compliance among importers and distributors**. This would help ensure that chemical products entering the country are correctly declared and that the associated tax obligations are met. The fiscal benefit extends beyond recovering customs revenue. Bringing illicit chemical activity into the formal economy would restore taxable business activity, support compliant operators and reduce unfair competitive advantages. A targeted approach combining risk-based border controls, customs data analysis, post-clearance verification and stronger information-sharing between SARS, the Border Management Authority and relevant regulators could focus on high-risk products and supply chains, improving revenue collection while strengthening market integrity and reducing the risks associated with illicit chemicals entering legitimate supply chains.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Chemicals Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit chemicals trade using a three-step approach.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the chemicals sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R6.8 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins (estimated at R587 million), the estimate equates to approximately R6.2 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit chemicals trade is estimated at R1.4 billion annually, comprising two components:

- **Direct GVA displaced: R1.3 billion** – derived by applying the sector's GVA-to-output ratio of approximately 21.5% (SUT-derived) to the displaced production output of R6.2 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products: R41 million** – comprising VAT, customs duties and other taxes on products associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA.

Key methodological notes

- The R6.8 billion illicit market estimate represents the study's working estimate and should be interpreted as the maximum plausible direct economic cost of illicit chemicals trade. Impacts under the base-case estimate would be proportionally lower.
- The analysis estimates economic activity currently displaced by illicit trade, and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.
- South Africa's chemicals sector combines substantial import dependence with a diversified domestic manufacturing base – the country has one of Africa's largest chemicals industries and serves as a regional manufacturing, import and distribution hub. Consequently, the **GDP impact reflects both displaced domestic manufacturing value added and the trade, logistics and compliance margins associated with the import-competing segment of the market.**

- The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered. However, these have not been quantified in the central estimate to avoid double-counting and to maintain a conservative approach.

Key results

- Illicit trade displaces domestic value added across manufacturing, wholesale trade, logistics, warehousing, retail and related business services. This is primarily import-driven – through smuggling, misdeclaration and the entry of counterfeit, adulterated and unregistered products – with local illicit activity generally limited to repackaging, adulteration and small-scale blending rather than large-scale domestic manufacturing, without generating the associated formal-sector economic contribution.
- Where illicit goods compete directly with locally manufactured products, the impact is more severe. In these cases, illicit trade suppresses output, reduces investment incentives, places pressure on employment and contributes to the erosion of South Africa's domestic chemicals manufacturing base.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	**Formal sector direct GVA baseline (current, illicit trade present)**	**R83.2bn**
2	Illicit market estimate (formal-equivalent prices)	**R6.8bn**
	Less: trade and transport margins	−R587m
	= Displaced formal production output (at basic prices)	**R6.2bn***
	× Sector GVA/output ratio (SUT-derived)	~21.5%
3a	**= Direct GVA displaced by illicit trade**	**R1.3bn**
3b	**+ Foregone taxes on products due to displaced activity**	**R41m**
3c	**= Direct GDP impact of illicit trade**	**R1.4bn**
Counterfactual	**Direct Chemicals GVA if illicit trade were eliminated**	**R84.5bn**

* → After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R6.2 billion in displaced formal sector production output.
Counterfactual = estimated direct chemicals sector GVA if illicit chemicals trade were eliminated and displaced consumption shifted to the formal sector.

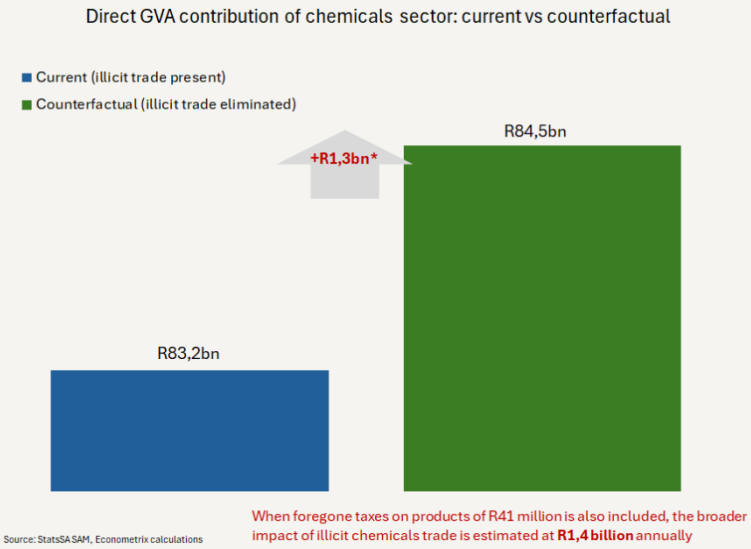
Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal sector production output displaced
R83.2bn	**R1.3bn**	**R1.4bn†**	**R84.5bn**	**R6.2bn**
1.3% of total SA GVA	annually through illicit chemicals trade	Direct GVA displaced (R1.3bn) *plus* foregone taxes on products due to displaced activity (R41m)†		annually by illicit chemicals trade (at basic prices)

†GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal sector activity. Taxes on products include VAT, customs duties and any other product taxes associated with chemicals products. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R6.8 billion of chemicals trade occurs through illicit channels annually, diverting demand away from compliant, tax-paying businesses.

Under the working estimate, this is estimated to displace approximately R6.2 billion in formal-sector production output, R1.3 billion in direct-sector GVA, and R1.4 billion in total GDP impact annually.



When foregone taxes on products of R41 million are included, the broader GDP impact of illicit chemicals trade is estimated at R1.4 billion annually.

As a result, the measured economic contribution of the chemicals sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and downstream industrial effects are taken into account. However, these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Because the chemicals sector combines domestic manufacturing with a substantial import component, the economic benefits of improved enforcement extend beyond recovering customs duties and VAT.

More effective detection of smuggling, customs misdeclaration, undervaluation, counterfeit products and other forms of illicit trade would redirect demand towards compliant manufacturers, importers and distributors, supporting higher formal-sector production, investment and value added across manufacturing, wholesale trade, logistics, warehousing and retail.

Strengthening customs risk profiling, post-clearance audits, market surveillance and intelligence-led enforcement therefore has the potential to support economic growth while reinforcing fair competition, protecting consumers, farmers and the environment from substandard, counterfeit and unregistered products, and strengthening the long-term competitiveness of South Africa's compliant chemicals sector.

Contribution To SA's Employment and Impact of Illicit Chemicals Trade

- The chemicals sector **directly supports approximately 113,100 jobs**, comprising 109,953 formal and 3,147 informal jobs.
- **The sector is highly formalised**, with 97.2% of direct employment in the formal economy, reflecting the regulatory requirements, quality standards and skills intensity of chemicals manufacturing, distribution and retail.
- **Semi-skilled workers** account for an estimated 45% of formal employment, while a further 32% are **unskilled**.

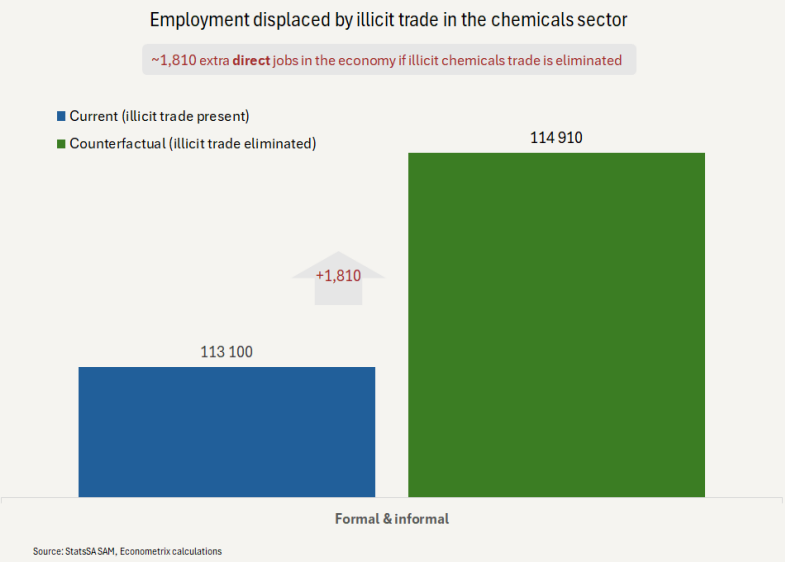
  As a result, illicit trade disproportionately affects production, warehousing and distribution occupations, including workers with relatively limited alternative formal employment opportunities.
- By diverting demand away from compliant manufacturers, importers and retailers, illicit trade suppresses investment, production growth and employment creation across the formal chemicals value chain.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment if illicit demand shifted to compliant businesses	Semi-skilled formal jobs share
113,100 jobs	**1,810 jobs**	**114,910**	**45%**
Formal: 109,953 (97.2%) Informal: 3,147 (2.8%)	Formal: 1,760 Informal: 50	*(formal and informal)*	Displacement falls primarily on semi-skilled workers, with a further 32% affecting unskilled formal workers.

The employment suppression effect

The chemicals sector employs approximately 113,100 people.

Applying the sector-specific direct GVA displacement ratio of 1.6%[14] to current employment levels suggests that **approximately 1,810 direct formal and informal jobs are displaced by illicit chemicals trade.**



Total direct-sector (formal and informal) employment **could potentially reach approximately 114,910 direct jobs** if demand currently captured by illicit channels were redirected towards compliant businesses.

These jobs represent employment that could potentially be supported within the chemicals value chain if demand currently captured by illicit channels were redirected towards compliant businesses.

The broader employment impact would extend well beyond the sector itself. **The chemicals sector currently supports approximately 417,386 formal and informal jobs across the South African economy** through upstream and downstream value-chain linkages, highlighting that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

[14] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

The employment argument for enforcement

The employment impact of illicit trade extends beyond lost sales. By diverting demand away from compliant manufacturers, wholesalers and retailers, illicit trade reduces incentives for investment, business expansion and workforce growth.

Given the sector's mix of skilled, semi-skilled and unskilled workers across formal manufacturing, distribution and retail, including many in occupations with limited alternative formal employment opportunities, reducing illicit trade could help retain employees and strengthen one of South Africa's more regulation-intensive industrial sectors.

SECTOR CHAPTER

06

Clothing, Textiles, Footwear and Leather

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R53.0bn
Annual CTFL market, 2019–2025 (household consumption avg)

210,300
Direct jobs (formal+informal); 51.8% informal employment

R30.7bn
Sector GVA contribution; ~0.5% of SA GVA

51%
China's share of SA CTFL imports

Primary risk corridor (2019–2025) · 25.1% import share of total output

PRIMARY FORMS OF ILLICIT TRADE

1. **Unlawful imports — misdeclaration, undervaluation & tariff fraud** — Highest

   China corridor raw gap of R14.9bn; all-corridors approx. R29.2bn (estimate, before noise discounts). Mirror trade analysis identifies widespread customs under-declaration and undervaluation — the dominant illicit channel by value.

2. **Counterfeiting / fake branded goods** — High

   Counterfeit clothing, footwear and leather goods remain one of the largest illicit product categories. Consistently identified by SARS as a leading seizure category and is driven by demand for branded products at lower prices.

3. **Smuggling — fully undeclared border movements** — Moderate

   Occurs primarily through Beitbridge and commercial shipping routes, often alongside customs fraud. Difficult to quantify directly because undeclared goods do not appear in customs data.

KEY DEMAND DRIVERS

- **Price & affordability** — illicit goods are typically 30–70% cheaper than compliant alternatives, making them attractive during cost-of-living pressures.
- **Brand aspiration** — counterfeit products provide low-cost access to recognised brands and fashion trends.
- **High availability** — widespread access through informal markets, small retailers, online marketplaces and social media platforms.

KEY SUPPLY ENABLERS — TIER 1

- **High tariff burden** — 45% import duty + 15% VAT creates strong incentives for customs fraud, undervaluation and tariff evasion.
- **Transshipment & re-invoicing** — routing goods via hubs such as Dubai and Hong Kong obscures origin and facilitates undervaluation.
- **Weak border enforcement** — limited inspection capacity, fragmented enforcement and relatively low deterrence increase the likelihood that illicit consignments evade detection.

ILLICIT SUPPLY CHAIN — IMPORT-LED, WITH DOMESTIC DISTRIBUTION NETWORKS

1 Origin	2 Transit	3 Border Entry ★	4 Wholesale	5 Retail
China · Bangladesh · Pakistan · Vietnam · Turkey	Dubai, HK — re-invoiced, re-labelled, origin obscured	Durban · Cape Town · OR Tambo · Beitbridge — Primary intervention point	Underground distributors & warehouse networks	Informal markets, online, direct-to-consumer

★ Border entry is the highest-leverage fiscal intervention point, where customs misdeclaration, undervaluation and tariff fraud enable large-scale evasion of import duties and VAT.

ILLICIT PENETRATION RATE — CTFL (WORKING ESTIMATE)

10.6%
Illicit penetration rate

~R20.4bn
per year

Four independent methodologies — mirror trade analysis, supply-use tables, SARS seizure data and OECD/EUIPO benchmarks — triangulate to an estimated illicit penetration range of 3.9%–10.6%. For economic impact, fiscal and employment modelling, the upper-bound estimate of 10.6% (R20.4bn) is adopted as the working estimate, reflecting evidence that central estimates are likely to understate illicit activity because of enforcement gaps and the scale of non-China import channels.

FISCAL DISPLACEMENT — ILLICIT CTFL TRADE

CURRENT SECTOR TAX BASE

R47.4bn

Annual government revenue from CTFL sector

VAT & sales tax R46bn · PIT R1bn · Other R0.4bn

→

ANNUAL TAX LOSS — ILLICIT TRADE

R2.5bn

Direct fiscal cost of illicit CTFL trade annually

VAT & duties R2.4bn (96.5%) · PIT R55m · Activity R22m

NATURE OF THE LOSS

96.5% of loss is VAT & customs duties — a border enforcement problem.

Recoverable within existing tax frameworks — no new taxes required.

POTENTIAL IF DEMAND REDIRECTED

R49.9bn

Potential tax revenue if illicit CTFL demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT CTFL TRADE

R30.7bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R4.7bn

Formal-sector production output displaced annually

At basic prices

R1.3bn

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R3.7bn

Direct GDP impact annually

GVA R1.3bn + foregone taxes R2.43bn

R32bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT CTFL TRADE

210,300

direct jobs

Formal: 101,385 (48.2%) · Informal: 108,915 (51.8%)

8,622

jobs displaced

Formal: 4,156 · Informal: 4,466

68%

semi-skilled formal share

Displacement falls disproportionately on semi-skilled workers

218,922

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were recovered by compliant operators



GVA = gross value added; measures the sector's direct economic contribution before production taxes. GDP impact includes foregone taxes on products. · Employment displacement applies a 4.1% direct GVA displacement rate to current employment levels. · Tax loss is a direct estimate; broader multiplier effects are not included to avoid double-counting.

OVERVIEW OF THE ILLICIT CLOTHING, TEXTILES, FOOTWEAR & LEATHER MARKET IN SOUTH AFRICA

Global context

Clothing, textiles, footwear and leather (CTFL) products are among the most heavily affected categories in global illicit trade. According to OECD and customs seizure data, counterfeit trade in these product groups is widespread, reflecting their high brand value, ease of replication, strong consumer demand and extensive cross-border supply chains. The CTFL sector is particularly exposed because products are often relatively easy to copy, distribute and conceal within legitimate trade flows, making enforcement difficult.

Structural vulnerabilities in the CTFL value chain

The CTFL sector is vulnerable to a wide range of illicit trade practices, including counterfeit production, smuggling, under-invoicing, tariff misdeclaration, illegal transhipment and grey-market imports. These practices are facilitated by globally fragmented supply chains, high import penetration, and the difficulty of monitoring product origin, declared value and authenticity across multiple production and distribution stages. In labour-intensive segments, illicit trade is also often linked to broader forms of regulatory evasion, including tax non-compliance, labour law breaches and informal or unregistered production.

Demand, distribution and the South African context

Demand for illicit CTFL products is driven by a combination of price sensitivity, brand aspiration and limited consumer awareness of the broader economic and social consequences of illicit trade.

Historically associated with informal market hawking and counterfeit goods, illicit CTFL trade in South Africa has evolved into a far more sophisticated and economically entrenched phenomenon. Organised import networks exploit high-volume trade corridors – particularly from major CTFL-exporting economies such as China, Bangladesh and other Asian manufacturing hubs – through practices including under-invoicing, tariff misdeclaration, false origin declarations, smuggling and the infiltration of non-compliant goods into formal distribution channels.

The growth of e-commerce, social media selling, online marketplaces and small-parcel delivery networks has created additional channels through which illicit goods can reach consumers while avoiding detection. These products are distributed through a combination of informal retail markets, independent traders, wholesalers, online sellers and cross-border trading routes, often alongside legitimate products, making enforcement and consumer differentiation increasingly difficult.

As a result, illicit CTFL trade has evolved beyond a customs compliance challenge into a broader form of organised trade crime linked to tax evasion, regulatory non-compliance and the erosion of legitimate market activity.

South Africa's exposure to illicit CTFL trade

South Africa occupies a unique position within the regional CTFL trade landscape. As a major consumer market with extensive trade links to Asia and the rest of Africa, the country combines high import dependence with several structural vulnerabilities, including porous trade corridors, large volumes of containerised imports and uneven enforcement capacity.

These factors increase exposure to counterfeit goods, undervalued imports, smuggling and other forms of illicit trade that undermine compliant local production and retail activity.

Why this matters in South Africa

The CTFL sector remains economically and socially significant because it supports domestic manufacturing, design, logistics, wholesale and retail activity, while serving as an important source of labour-intensive employment.

More than 210,000 jobs are supported across the value chain, with women accounting for approximately 60% of sector employment. The sector is also a priority industry under the Retail–Clothing, Textile, Footwear and Leather (R-CTFL) Master Plan due to its role in industrialisation, localisation and employment creation.

Unlike many consumer sectors, the CTFL industry is particularly vulnerable to unfair import competition because it is labour-intensive, price-sensitive and highly employment-generating.

Illicit trade, therefore, has consequences that extend beyond lost sales and tax revenue. It weakens local manufacturing competitiveness, reduces formal-sector output, discourages investment and innovation, suppresses employment creation, and places pressure on firm viability, particularly among domestic manufacturers and SMMEs.

Given the sector's concentration of semi- and unskilled and female employment, the economic harm associated with illicit trade falls disproportionately on workers with the fewest alternative formal employment opportunities. Illicit trade in CTFL is therefore not merely a compliance issue, but a structural threat to industrial development, employment creation and inclusive economic growth in South Africa.

STRUCTURE AND DRIVERS OF ILLICIT CTFL TRADE IN SA

Forms of illicit CTFL trade in South Africa: ranked assessment

RANK	FORM OF ILLICIT TRADE	RELATIVE SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Unlawful imports (misdeclaration of tariff heading, customs value/quantity)**	**Highest – dominant channel**	Mirror trade analysis identifies large discrepancies between expected and recorded imports across multiple CTFL product categories, indicating widespread misdeclaration and undervaluation of imports. SARS enforcement statistics show a sharp increase in detected customs under-declaration, further corroborating this pattern.
2	**Counterfeiting / fake branded products**	**High – major illicit category**	Counterfeit clothing, footwear and leather goods constitute a major component of illicit trade in South Africa. SARS enforcement data consistently identifies counterfeit products as one of the largest categories of illicit seizures.
3	**Smuggling (no declaration at the border)**	**Moderate**	Occurs through porous land borders (particularly Beitbridge) and commercial shipping routes, often in combination with misdeclaration. Fully undeclared imports do not appear in customs data, making their scale difficult to quantify.
4	**Unlicensed or non-compliant manufacturing operations**	**Moderate–Low**	Includes informal or unregistered production facilities that bypass licensing, labour and safety regulations. These operations may also rely on undervalued or undeclared imported inputs.
5	**Sale of products not complying with product regulations**	**Lower**	Includes incorrect labelling, misleading fibre composition claims and non-compliance with product standards such as sizing, care instructions and country-of-origin declarations. Often detected alongside counterfeit or undervalued goods.
6	**Local illicit production (unregistered manufacturers)**	**Lower–Moderate**	Includes small-scale production taking place outside the tax and regulatory system through informal or unregistered operations. Fiscal losses from this channel are not captured in customs-based estimates.
7	**Local under-declaration by registered manufacturers**	**Lowest**	Likely less significant than import-related illicit trade channels, given the CTFL sector's high import exposure and the dominance of border-related evasion mechanisms.

Note: Due to the lack of comprehensive quantitative data measuring the relative scale of different illicit trade channels in the CTFL sector, the ranking below should be interpreted as indicative rather than definitive. It reflects an analytical assessment based on SARS enforcement data, mirror trade discrepancies, and international evidence, supplemented by quantitative estimates developed in this report. Mirror trade analysis primarily captures import misdeclaration and undervaluation, while fully undeclared flows, informal distribution and online sales are not directly observable in customs data.

Cross-cutting channel shift. Illicit CTFL trade is increasingly enabled by digital channels, including online marketplaces, social media, small-parcel imports and courier deliveries, which make counterfeit, undervalued and non-compliant goods harder to detect and intercept.

Overall interpretation. Illicit CTFL trade in SA is primarily **import-driven**, led by misdeclaration and undervaluation, followed by counterfeit branded goods. These are often interlinked and likely account for the largest share of illicit trade by value.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Price and affordability pressures	Counterfeit and illicitly imported CTFL goods are typically 30–70% cheaper than legitimate products. In a market characterised by high unemployment and persistent cost-of-living pressures, many consumers prioritise affordability over authenticity. The price differential is enabled by illicit supply chains that avoid customs duties, VAT and regulatory compliance costs, allowing illicit operators to undercut legitimate traders on a landed-cost basis.	Highest
High availability through informal and online retail channels	Illicit CTFL goods are widely distributed through informal traders, urban markets, small retailers and online marketplaces. These channels significantly reduce friction for consumers, offering easy access, immediate availability and proximity, particularly in lower-income and high-density areas.	High
Aspirational consumption and brand status	Consumers seek access to fashionable or branded products associated with social status and identity. Counterfeit goods provide a low-cost pathway into brand-driven consumption, particularly where authentic products are priced out of reach.	High
Fast fashion and rapid trend cycles	Rapid fashion cycles increase demand for low-cost, quickly produced garments. Illicit producers are often more agile than formal manufacturers, enabling them to replicate trending designs more quickly and at lower cost, thereby reinforcing demand for counterfeit and grey-market goods.	High
Low perceived risk and limited social stigma	Purchasing counterfeit clothing carries minimal perceived legal or reputational risk. These products are widely normalised across consumer segments, weakening behavioural deterrence and supporting sustained demand.	High
Limited consumer awareness of broader harms	Many consumers are unaware that illicit CTFL trade undermines local manufacturing, reduces tax revenues and may involve substandard or unsafe products. This does not directly drive demand, but reduces resistance to purchasing illicit goods.	High
Aspirational consumption and brand status	Consumers seek access to fashionable or branded products associated with social status and identity. Counterfeit goods provide a low-cost pathway to participate in brand-driven consumption, particularly where authentic products are priced out of reach.	Moderate–High
Fast fashion and rapid trend cycles	Rapid fashion cycles increase demand for low-cost, quickly produced garments. Illicit producers are often more agile than formal manufacturers, enabling them to replicate trending designs faster and at lower cost, reinforcing demand for counterfeit and grey-market goods.	Moderate

CFTL demand is structurally anchored in affordability and accessibility, but reinforced by aspirational consumption and fast-moving fashion dynamics. Unlike pharmaceuticals, where access barriers and treatment continuity are key, CFTL demand is more discretionary and socially influenced, with weak stigma and high normalisation further entrenching illicit market participation.

Supply Side Enablers of Illicit CTFL Trade

Supply-side enablers are organised into three tiers based on their assessed impact on the scale and persistence of illicit trade. Tier 1 factors are primary structural drivers; Tiers 2 and 3 are compounding or contextual factors that amplify the effect of Tier 1 conditions.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High tariff burden and duty/VAT evasion incentives Clothing imports are subject to 45% duty plus 15% VAT, creating a strong incentive for customs misdeclaration, undervaluation and tariff fraud. Avoiding these charges enables illicit operators to undercut compliant importers while preserving margins. The removal of the low-value import concession in November 2024 likely increased these incentives.	**Limited inspection capacity at ports and borders** Only a small share of consignments is physically inspected, with authorities relying largely on risk-based targeting. This creates opportunities for illicit consignments to enter undetected, particularly where shipment volumes are high.
	Low expected cost of enforcement non-compliance Even where illicit consignments are detected, limited prosecutions, weak penalties and slow enforcement follow-through reduce deterrence. Where the commercial upside materially exceeds the likely cost of detection, illicit trade remains economically rational.
Transshipment, re-invoicing and origin concealment practices Routing goods through third-country hubs can obscure origin and enable re-invoicing at artificially low values, weakening bilateral trade monitoring and facilitating undervaluation.	**Corruption and collusion at ports and border posts** Corruption or facilitation within clearance and border processes can enable smuggling, customs fraud, undervaluation and selective enforcement failure.
	Fragmented enforcement and weak inter-agency coordination Mandates are split across SARS, NRCS, SAPS, the Border Management Authority (BMA) and municipalities, which can limit coordination, intelligence sharing, and consistent enforcement across the supply chain.
Tier 2 – Structural & Systemic Drivers	
Organised criminal supply chains Illicit CTFL trade is often supported by organised networks with sophisticated sourcing, logistics and distribution capabilities.	**Slow and costly IP enforcement** Lengthy and resource-intensive intellectual property enforcement processes can reduce the commercial incentive for rights holders and authorities to pursue counterfeit operators aggressively.
Large informal, wholesale and digital distribution networks Informal traders, urban markets, low-cost wholesalers and online marketplaces enable illicit CTFL goods to be distributed rapidly and at scale, with limited oversight and low barriers to market entry.	**Weak international customs intelligence-sharing** Limited coordination with transit-country customs authorities hampers the ability to identify rerouted shipments, suspicious trade patterns and cross-border discrepancies.
Complex global supply chains and fast production cycles These allow counterfeiters and illicit suppliers to replicate fashion products quickly and at low cost, while global low-cost manufacturing capacity enables rapid scaling.	**Weak importer traceability and shell-company churn** Illicit operators may use short-lived entities, proxy importers, or frequently changing importer-of-record structures to reduce accountability and evade repeat enforcement. This weakens deterrence, complicates post-clearance audits and allows networks to continue operating despite periodic seizures or investigations.
Growth in e-commerce and small-parcel fulfilment channels The expansion of online marketplaces, courier fulfilment and small-parcel logistics has increased the number of entry and distribution points through which illicit CTFL goods can move, making detection and enforcement more difficult.	
Tier 3 – Market-Level & External Factors	
South Africa's role as a regional trade and logistics hub Large container and cargo volumes moving through Durban, Cape Town and other logistics corridors increase the operational challenge of detecting illicit consignments, particularly where inspection resources are limited.	**Porous land borders and weak regional coordination** These enable smuggling, cross-border leakage and round-tripping through neighbouring countries.

Sources: Industry Survey conducted by Econometrix; OECD, ILO, WCO

The Illicit CTFL Supply Chain

1 ORIGIN

Global Production — OUTSIDE SARS JURISDICTION — NOT ACTIONABLE AT SOURCE

KEY PRODUCERS

China · Turkey · Pakistan · Vietnam

Illicit goods are typically sourced from low-cost, export-oriented hubs and include counterfeit goods, illegally imported genuine products, and grey-market goods. Documentation and invoice values may be structured upstream to enable later **undervaluation, misclassification or origin concealment**.

ENFORCEMENT LEVER

International customs cooperation, World Customs Organisation (WCO) intelligence sharing, brand owner engagement and intellectual property enforcement in source and export jurisdictions.

2 TRANSIT

Transshipment Hubs & Trade Concealment — TIER 1 CUSTOMS EVASION MECHANISM

KEY HUBS

Dubai · Hong Kong · Singapore · Bangladesh

Goods may be routed through third-country hubs where consignments are re-invoiced, re-labelled, consolidated or split before onward shipment to SA. This can obscure origin, weaken trade traceability and support later customs fraud.

ENFORCEMENT IMPLICATION

Breaks the bilateral audit trail. Strengthens the case for **improved transit-country intelligence-sharing, trade-data analytics and customs cooperation** with key intermediary jurisdictions.

3 BORDER ENTRY ★

Border Entry & Customs Clearance — ★ PRIMARY SARS INTERVENTION POINT

KEY ENTRY POINTS

Durban · Cape Town · OR Tambo · Beitbridge

Illicit goods enter SA through ports, airports and land borders, often concealed through customs misdeclaration, including **understated values, misdeclared quantities, incorrect tariff classifications or incomplete disclosure**, often facilitated by importers, clearing agents or freight intermediaries.

ENFORCEMENT IMPLICATION

This is likely the **highest-leverage fiscal intervention point**, as customs misdeclaration and undervaluation enable significant evasion of import duties and VAT.

With only a small share of consignments physically inspected, post-clearance audits and importer risk profiling are critical.

4 WHOLESALE / DISTRIBUTION

Post-Border Wholesale & Distribution — POST-BORDER INTERVENTION POINT

KEY ACTORS & STRUCTURE

Underground distributors, informal wholesalers and **low-visibility warehouse networks** — concentrated in Gauteng, Western Cape and KZN — distribute goods through formal and informal logistics channels.

This wholesale layer is a key consolidation point before goods move into downstream sales channels.

ENFORCEMENT IMPLICATION

Largely operates outside the formal system, requiring **post-clearance audits and market intelligence**, rather than border controls.

5 RETAIL / CONSUMER ACCESS

Domestic Retail & Digital Sales — CHANNELS TO CONSUMER — MARKET INTERVENTION POINT

Once inside the country, illicit CTFL goods are sold through a combination of formal, informal and digital retail channels, including wholesalers, informal traders, urban markets, small retailers, online marketplaces and social media-based sellers.

Channel 1
Traditional informal retail

Wholesale networks → informal traders / urban markets / small retailers → consumer

- Dominant channel, with multiple physical touchpoints. Disruption at wholesale level affects downstream supply.

Channel 2
Digital-enabled retail

Distributors / wholesalers → online platforms / social media → consumer

- Rapidly growing, with limited oversight, high product turnover and low entry barriers.

Channel 3
Direct-to-consumer *(disintermediated)*

Manufacturer / distributor → Consumer

- Fast-growing model using courier and parcel delivery of low-value consignments, bypassing traditional retail structures. Highlights need for digital monitoring and review of de minimis thresholds.

ENFORCEMENT IMPLICATION

Retail channels are increasingly fragmented and difficult to monitor, especially online and in small-parcel flows. Effective disruption requires **market surveillance, digital monitoring, parcel intelligence and targeted enforcement against repeat sellers and distributors**.

Source: WHO, WCO, OECD, ILO, UN Comtrade / ITC Trade Map.

SCALE OF ILLICIT CTFL TRADE IN SA – PENETRATION RATE

Methodological approach

Direct measurement of illicit trade is inherently difficult because the activity is designed to evade detection. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the illicit trade penetration rate in South Africa's CTFL sector using four complementary benchmarks:

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror Trade Analysis	Import misdeclaration, undervaluation and under-recorded imports	ITC TradeMap / UN Comtrade	Primary quantitative indicator of illicit market entry, via import misdeclaration and undervaluation
2. Seizure-Implied Market Estimation	Enforcement-based evidence of smuggling and customs evasion	SARS Annual Reports	Scales observed seizure values to estimate the implied total illicit market based on detection rate assumptions
3. Supply-Use Table Benchmark	Non-observed domestic market activity in relevant CTFL categories	Stats SA Supply-Use Tables	Secondary cross-check of domestic non-observed activity, reflecting the role of informal and blended distribution channels in CTFL
4. International Benchmarking Evidence	Plausible penetration ranges observed in comparable markets	OECD/EUIPO trade-based estimates	Plausibility check against comparable CTFL markets internationally

Mirror trade and seizure-based estimates are primarily used to assess illicit market entry, whereas the Supply-Use Table benchmark provides a broader perspective on the domestic market absorption.

Together, these methods distinguish between illicit market entry – reflected in trade and customs indicators – and domestic market penetration, reflected in non-observed activity captured in the SUTs.

The final penetration range is derived from the convergence across methods and should be interpreted as a directional, evidence-based estimate of illicit CTFL trade in South Africa.

Estimating the Size of the CTFL Market

The South African Reserve Bank (SARB) national accounts series on household consumption expenditure for clothing and footwear provides the market-size denominator used throughout this analysis. This series is preferred over Stats SA formal retail trade data for two reasons.

- First, it is published in nominal terms, consistent with the nominal rand values used in the mirror trade and seizure-based analyses.
- Second, it captures household spending across both formal and informal channels, providing a more complete representation of the total market in which illicit goods circulate – including purchases through informal traders, market stalls and grey-market channels that formal retail data does not capture.

The average annual clothing and footwear household consumption expenditure over 2019–2025 is R193.5 billion, used as the core denominator throughout the penetration analysis.

Table 14: Clothing & Footwear Household Consumption Expenditure

YEAR	CLOTHING & FOOTWEAR HOUSEHOLD CONSUMPTION (NOMINAL)	YEAR-ON-YEAR GROWTH
2019	R171.0bn	3,1%
2020	R147.3bn	-13,9%*
2021	R177.6bn	20,5%
2022	R195.9bn	10.3%
2023	R212.2bn	8.3%
2024	R216.4bn	2.0%
2025	R233.5bn	7.9%
Average (2019–2025)	**R193.5bn**	**5.5%**

Source: SARB

** The sharp contraction in 2020 (−13.9%) reflects the impact of COVID-19 lockdown restrictions on clothing and footwear retail activity and is retained in the average without adjustment, as it represents actual market conditions over the analysis period. The average is used as the core denominator for all penetration rate calculations, consistent with the use of average annual trade and seizure figures elsewhere in this analysis.*

Method 1: Mirror Trade Analysis[15]

Conceptual Basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate import under-recording, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains.

While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative of underlying trade frictions or potential misreporting.[16]

[15] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[16] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis, therefore, compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

HS code coverage and China–South Africa CTFL trade corridor

Five HS code groups were analysed, covering the core CTFL import categories most relevant to South Africa's exposure to illicit trade. The mirror trade analysis focuses specifically on the China–South Africa trade corridor, which represents the single largest source of South Africa's CTFL imports.

Based on UN Comtrade / ITC TradeMap data for 2019–2025, China accounts for approximately 60% on average (51% on a trade-weighted basis) of South Africa's CTFL imports by value across the five analysed HS codes, confirming that the mirror trade analysis captures the single most important supply corridor for CTFL goods entering the South African market.

Because **only one corridor is analysed**, the results capture a partial share of total import flows and should be interpreted as a **lower-bound indicator of potential import irregularities** rather than a complete estimate of all illicit CTFL imports into South Africa.

Table 15: China's share of South Africa's CTFL imports by HS code, 2019–2025 average

HS CODE	PRODUCT	CHINA'S SHARE OF SA IMPORTS (2019-2025)
HS 42	Leather Goods	69%
HS 64	Footwear	58%
HS 61	Knitted apparel	48%
HS 62	Non-knitted / woven apparel	43%
HS 65	Headgear and parts thereof	81%
Average	**All five categories**	**60%**
Trade-weighted average		**51%**

Source: ITC TradeMap, UN Comtrade

Mirror trade results

Table 16: China–South Africa CTFL Trade: Mirror Analysis and Import Discrepancies (Average Annual, 2019-2025)

HS CODE & PRODUCT		CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP (EXPORTS MINUS IMPORTS)	GAP (RAND)	GAP AS % EXPORTS
42	Leather Articles	$339.7m	$159.3m	$180.4m	R3,0bn	53%
61	Knitted Apparel	$702.7m	$440.8m	$ 261.9m	R4,3bn	37%
62	Non-Knitted Apparel	$624.0m	$408.5m	$215.6m	R3,5bn	35%
64	Footwear	$734.8m	$516.1m	$218.7m	R3,6bn	30%
65	Headgear	$ 85.3m	$56.4m	$28.9m	R0,5bn	34%
Total 5 HS codes		$2,5bn	$1.6bn	$905.5m	**R14.9bn**	36%

Source: ITC TradeMap, Comtrade.

All five HS codes exhibit positive mirror-trade gaps, with China consistently reporting higher export values than South Africa records as imports. The categories with the highest China import shares also show the largest gap percentages – leather articles (69% China share; 53% gap) and knitted apparel (48% share; 37% gap). The scale and consistency of

this pattern across all five categories is consistent with structural trade behaviour rather than random statistical noise. However, it cannot be treated as definitive evidence of illicit activity in isolation.

Since the analysis captures only the China–South Africa corridor, total misdeclaration across all source countries – including Bangladesh, India, Turkey and others – is likely understated, and penetration estimates should be regarded as conservative.

Noise discount and corridor adjustment framework

Several structural factors can generate bilateral trade gaps independently of illicit activity: re-export routing via intermediary hubs such as Dubai and Hong Kong, timing differences in trade recording, classification mismatches, and informal trade flows not captured in official statistics.

Table 17: Potential non-fraud contributors to bilateral trade gaps - China–SA CTFL corridor

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export via third countries (e.g. Dubai, Hong Kong)	Reduces apparent SA imports from China	Significant – apparel supply chains frequently involve re-invoicing and re-declaration via regional logistics hubs, particularly Dubai and Hong Kong. A meaningful share of the observed gap may reflect re-routed rather than directly shipped product.
Trade recording timing differences	Minor bilateral misalignment	Small effect – typically short-term and unlikely to explain a persistent multi-year gap across all five HS codes.
Classification and reporting differences	Minor HS-level discrepancies	Moderate – CTFL categories encompass broad HS2 chapters (HS 61, 62, 64, etc.), which may capture a wider range of products in different ways across reporting countries. Less of an issue than at HS4/HS6 level.
Informal and undeclared trade not captured	Reduces SA recorded imports	Highly relevant – CTFL is one of the most heavily informally traded sectors in South Africa. Cross-border informal imports from neighbouring countries and small-parcel flows are structurally undercounted in Comtrade, meaning SA's recorded imports are likely understated.
Undervaluation of declared shipments	Reduces apparent value of SA imports relative to China exports	Particularly relevant in CTFL – undervaluation of low-cost apparel and footwear consignments is a well-documented customs risk, contributing to the gap independently of volume misdeclaration.

These factors are unlikely to account for the full magnitude of the observed gap, but require a downward adjustment before the gap can be used as an illicit trade indicator. International studies by the OECD and Global Financial Integrity typically apply noise discounts of 30%–60%.

For the CTFL sector, a discount at the higher end of this range – 40%–50% – is considered appropriate for two reasons.

- First, apparel supply chains are characterised by widespread re-export routing through Dubai and Hong Kong, where goods manufactured in China are frequently re-invoiced and re-declared before entering destination markets.
- Second, CTFL is one of the most heavily informally traded product categories in South Africa, with significant volumes moving through cross-border informal channels that generate statistical noise in bilateral trade data. A 40% discount is treated as the central estimate, with 50% as the upper-bound sensitivity case.

Two estimation panels are used.

- Panel A reflects the observed China corridor gap only and represents a conservative floor.

- Panel B extrapolates the China corridor misdeclaration rate across all import corridors by dividing the observed gap by China's 51% trade-weighted import share, yielding an implied all-corridor gap of R29.2 billion. Given China's dominant share of CTFL imports, this extrapolation is methodologically defensible.

  To the extent that non-China corridors – including informal cross-border trade from neighbouring countries and small-parcel imports – exhibit higher misdeclaration rates, the all-corridor estimate remains conservative.

Table 18: Mirror-Trade Matrix – Average Annual, 2019–2025

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE (SELECTED HS CODES)	HOUSEHOLD CONSUMPTION: CLOTHING & FOOTWEAR	ILLICIT PENETRATION RATE
PANEL A: CHINA CORRIDOR ONLY					
Raw gap	R14.9bn	None applied	R14.9bn	R193.5bn	7.7%
30% noise discount	R14.9bn	−30%	R10.5bn	R193.5bn	**5.4%**
40% noise discount	R14.9bn	−40%	R9.0bn	R193.5bn	**4.6%**
50% noise discount	R14.9bn	−50%	R7.5bn	R193.5bn	**3.9%**
PANEL B: ALL CORRIDOR EXTRAPOLATION (CHINA = 51% OF TOTAL RECORDED SA CTFL IMPORTS)†					
Raw gap	R29.2bn	None	R29.2bn	R193.5bn	15.1%
30% noise discount	R29.2bn	−30%	R20.4bn	R193.5bn	**10.6%**
40% noise discount	R29.2bn	−40%	R17.5bn	R193.5bn	**9.1%**
50% noise discount	R29.2bn	−50%	R14.6bn	R193.5bn	**7.5%**

† *The all-corridor gap is derived by dividing the China corridor gap (R14.9bn) by China's 51% trade-weighted share of total recorded SA CTFL imports. This assumes the misdeclaration rate observed on the China corridor is broadly representative of other corridors. If misdeclaration is more prevalent in smaller or less regulated corridors, the estimate understates the true all-corridor gap.*

The mirror trade methodology implies that illicit CTFL imports account for approximately 7.5%–9.1% of the domestic clothing and footwear market (R14.6bn–R17.5bn per year) under the preferred 40%–50% noise discount range applied to the all-corridor estimate.

Panel A (China corridor only) implies a conservative floor of 3.9%–4.6% (R7.5bn–R9.0bn), reinforcing that the full market impact is likely closer to the all-corridor estimate.

The scale and persistence of the discrepancy across all five HS codes, combined with evidence of enforcement, indicate that a meaningful share of the observed gap is attributable to misdeclaration and undervaluation rather than to legitimate trade frictions alone.

Method 2: SARS Seizure-Implied Market Estimation

Conceptual Basis

Physical seizure data reflects goods intercepted through border controls and post-clearance enforcement and therefore captures only the detected portion of illicit trade. Estimating the total market requires applying a detection-rate assumption, which scales observed seizures to account for undetected flows: *Implied illicit market = Seizure value ÷ Detection rate*.

Empirical evidence for comparable middle-income economies places detection rates in the range of 2%–10%17, reflecting differences in enforcement capacity, inspection coverage and the prevalence of informal and small-parcel channels. This range is considered appropriate for South Africa, which has formal port-based customs systems but limited visibility over informal trade and small-parcel flows.

Lower detection rates imply a larger unobserved illicit flow for a given seizure amount and are consistent with the structural characteristics of illicit consumer goods trade. Detection rates are unlikely to be uniform across channels. Clothing, footwear and leather goods are typically low-value relative to their bulk, making undervaluation a more prevalent risk than physical concealment. Large consignments can be misdeclared by category, quantity or unit price, while informal cross-border flows and small-parcel imports bypass formal inspection entirely. These structural characteristics – particularly the scale of informal CTFL trade in South Africa – suggest that a 5% central detection rate is more realistic than 10% for this sector, reflecting a moderate but meaningful enforcement gap across both formal and informal channels. The detection-rate scenarios used in this analysis can therefore be interpreted as follows: 10% detection rate – relatively efficient enforcement (approximately 1 in 10 illicit units intercepted); 5% detection rate – moderate enforcement gap (approximately 1 in 20 intercepted); 2% detection rate – low detection capacity (approximately 1 in 50 intercepted). Accordingly, seizure data represents a known lower bound, with the detection rate used to estimate the total scale of illicit trade.

SARS Annual Report Seizure Data

The analysis draws on SARS annual reports for recent financial years, covering under-declared clothing and footwear seizures as the most sector-specific enforcement signal available for CTFL. Counterfeit goods are reported separately by SARS as a broad cross-sector category. They are not used as the primary seizure basis for this analysis, though they are shown for context.

The annual value of clothing and footwear seizures varies materially across the period, ranging from R54.3 million to R575.2 million. The 2024–25 figure of R74.6 million is anomalously low relative to other years – an 87% decline from R575.2 million in 2023–24 – and is likely to reflect a change in SARS classification or reporting practice rather than an actual collapse in enforcement activity. This anomaly materially suppresses the five-year average and is addressed in the calculations below.

Table 19: Value of SARS customs seizures

FINANCIAL YEAR	COUNTERFEIT GOODS	UNDER-DECLARED CLOTHING & FOOTWEAR SEIZURES	UNDER-DECLARED CLOTHING & FOOTWEAR SEIZURES % OF TOTAL	TOTAL CUSTOMS SEIZURES
2020-21	n/a	R54.3m	2.5%	R2.1bn
2021-22	R2.6bn	R287.0m	7.0%	R4.1bn
2022-23	R2.0bn	R324.0m	5.6%	R5.8bn

[17] *This range is consistent with estimates cited in UNODC (2010),* The Globalization of Crime*, and is applied in illicit trade studies including OECD/EUIPO (2019),* Trends in Trade in Counterfeit and Pirated Goods.

FINANCIAL YEAR	COUNTERFEIT GOODS	UNDER-DECLARED CLOTHING & FOOTWEAR SEIZURES	UNDER-DECLARED CLOTHING & FOOTWEAR SEIZURES % OF TOTAL	TOTAL CUSTOMS SEIZURES
2023-24	R2.1bn	R575.2m	8.7%	R6.6bn
2024-25	R646.3m	R74.6m	1.2%	R6.3bn
Average	**R1.6bn**	**R263m**	**5.0%**	**R5.0bn**

Source: SARS Annual Reports

Seizure-implied market calculations

To reduce the influence of year-specific volatility, the analysis uses the five-year average annual seizure value for clothing and footwear (R263 million). The denominator is correspondingly expressed as a five-year average household consumption value (R207.2 billion) to ensure consistency.

Table 20: Implied illicit market based on detection rate assumptions

DETECTION RATE ASSUMPTION	SEIZURES (AVG)	IMPLIED ILLICIT MARKET	HOUSEHOLD CONSUMPTION: CLOTHING & FOOTWEAR	ILLICIT PENETRATION RATE	INTERPRETATION
10% (high enforcement efficiency)	R263m	R2.6bn	R207.2bn	1.3%	Conservative estimate
5% (moderate enforcement)	R263m	R5.3bn	R207.2bn	2.5%	Central estimate
2% (low enforcement efficiency)	R263m	R13.2bn	R207.2bn	6.3%	Upper bound

Detection rates are unlikely to be uniform across channels, with higher interception rates at formal ports and significantly lower rates in small-parcel and informal trade flows. The applied range should therefore be interpreted as an aggregate approximation rather than a precise detection probability.

The seizure-implied approach suggests an illicit CTFL market equivalent to approximately 1.3%–6.3% of domestic clothing and footwear consumption, depending on the assumed detection rate.

The 5% detection scenario is adopted as the central estimate, implying an illicit market of approximately R5.3 billion, or 2.5% penetration, reflecting a moderate enforcement efficiency assumption.

Method 3: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

Three SUT product codes are relevant to the five HS codes analysed in the mirror trade section: P33 (282–3, Wearing apparel) covering HS 61, 62 and 65; P34 (291–2, Leather) covering HS 42; and P35 (293–6, Footwear) covering HS 64. The supply table records a non-observed economy (NOE) supply figure for each, representing output that enters the market through informal, unregistered or illicit channels.

Interpreting the NOE supply figure

The NOE supply encompasses a mix of activities that are not uniformly illicit. In principle, it includes the following components:

Component	Illicit?
Unregistered informal producers (small workshops, home-based garment makers, informal cobblers)	Not strictly illicit – informal but legal. Material in CTFL: approximately 48% of wearing apparel employment and 16% of footwear employment is informal, reflecting a large and well-established informal manufacturing base
Undeclared output from registered producers	Tax evasion – illicit
Counterfeit or smuggled product re-entering domestic supply	Illicit
Household production (home sewing, basic garment repair)	Negligible for commercial scale – household production exists in CTFL, but does not meaningfully enter the retail market

Unlike the CPC and pharmaceutical sectors, where informal legitimate production is negligible, and the full NOE supply can be treated as broadly representative of illicit activity, the CTFL sector has a significant and well-documented informal manufacturing base. A direct application of the raw NOE supply figure would therefore overstate illicit penetration by including legitimate informal production that is not illicit in nature.

Adjusting for legitimate informal production

To isolate the illicit component, the NOE supply and NOE consumption figures are adjusted downward using the formal employment share as a proxy for the illicit and unrecorded proportion of non-observed output.

Three adjustment factors are applied, one per product code.

- For wearing apparel (P33, covering HS 61, 62 and 65), where approximately 48% of employment is informal, a factor of 0.52 is applied – treating 52% of NOE supply as illicit or unrecorded.
- For leather goods (P34, covering HS 42), where informal employment is negligible, no adjustment is made, and the full NOE supply is retained.
- For footwear (P35, covering HS 64), where approximately 16% of employment is informal, a factor of 0.84 is applied – treating 84% of NOE supply as illicit or unrecorded.

This adjustment is necessarily approximate – employment informality is used as a proxy for output informality, which introduces uncertainty at the product level. The adjusted figures should therefore be interpreted as directional estimates rather than precise measures. The same adjustment is applied consistently to both NOE supply and NOE consumption figures to ensure comparability in the structural insight analysis below.

Table 21: Stats SA Supply-Use Tables – P33, P34 and P35 (CTFL basket), 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R195.1bn	R203.2bn	R176.9bn	R206.1bn	R254.8bn	R207.2bn
Total industry (intermediate) use	R15.3bn	R15.5bn	R21.9bn	R18.4bn	R46.3bn	R23.5bn
Exports	R26.3bn	R26.0bn	R9.3bn	R11.6bn	R13.0bn	R17.3bn
Household consumption	R156.5bn	R161.9bn	R148.4bn	R181.0bn	R190.9bn	R167.7bn
Non-observed consumption – unadjusted	R2.9bn	R3.0bn	R3.2bn	R3.0bn	R8.8bn	R4.2bn

	2018	2019	2020	2021	2022	2018–2022 avg
Non-observed consumption – adjusted†	R2.7bn	R2.9bn	R2.9bn	R2.8bn	R7.6bn	R3.8bn
Non-observed supply – unadjusted	R21.3bn	R23.6bn	R15.2bn	R36.9bn	R10.5bn	R21.5bn
Non-observed supply – adjusted †	R12.0bn	R13.2bn	R8.7bn	R21.1bn	R6.4bn	R12.3bn
NOE supply / HH consumption – unadjusted	13.6%	14.6%	10.3%	20.4%	5.5%	12.9%
NOE supply / HH consumption – adjusted	7.7%	8.2%	5.8%	11.6%	3.3%	7.3%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. P33 covers wearing apparel, including headgear; P34 covers leather goods, luggage and handbags; P35 covers footwear.

† *Adjusted figures apply employment-based informal production factors: P33 ×0.52, P34 ×1.00, P35 ×0.84. Both NOE supply and NOE consumption are adjusted on the same basis.*

‡ *The 2021 adjusted NOE supply figure (R21.1bn, implying 11.6%) is anomalously high relative to other years, driven primarily by P33 wearing apparel. This likely reflects a statistical reclassification or residual balancing adjustment in the 2021 SUT rather than a genuine spike in illicit activity, and should be interpreted with caution.*

The adjusted NOE supply ratio averages 7.3% over the five-year period. Despite year-to-year volatility – partly attributable to the anomalous 2021 observation – the five-year average provides a reasonable directional indicator and is used as the domestic supply-side ceiling in the penetration triangulation.

A further structural insight: the NOE supply-consumption gap

- The use table provides a complementary signal. After applying the same employment-based adjustments, adjusted NOE consumption of CTFL products averaged approximately R3.8 billion per year over 2018–2022 – materially lower than the adjusted NOE supply of R12.3 billion over the same period.
- The gap of approximately R8.5 billion per year between adjusted illicit supply and adjusted illicit consumption through informal channels implies that a substantial share of illicitly produced or unrecorded CTFL product is not confined to informal retail markets.
- It is instead entering formal and semi-formal distribution networks – consistent with the well-documented presence of counterfeit and undervalued CTFL goods in formal retail environments, including markets, discount retailers and online platforms. This directly corroborates the mirror trade finding that misdeclared and undervalued CTFL imports circulate through mixed formal and informal channels rather than exclusively through identifiable grey markets.
- The adjusted NOE consumption figure is not used as a standalone penetration estimate, as it captures all informal consumption, including purchases of legitimately produced informal goods. It is retained as structural corroborating evidence that illicit CTFL product is absorbed across both formal and informal retail channels, supporting the view that bilateral trade-based methods capture only part of the total illicit market.

Convergence with mirror trade results

The adjusted SUT domestic ceiling of 7.3% sits at the lower end of the preferred mirror trade all-corridor range of 7.5%–9.1% (Panel B, 40%–50% noise discount). This convergence across two entirely independent methodologies – one trade-based, one national accounts-based – provides stronger triangulation support for the central estimate than is available for either the CPC or pharmaceutical sectors, where the methods produced more divergent signals.

It supports the conclusion that illicit CTFL trade penetration in South Africa is in the range of 7%–10% of the domestic clothing and footwear market, with the SUT and mirror trade estimates bracketing this range from below and above, respectively.

Penetration Rate Matrix: Triangulated outcome

The methods applied in this analysis converge on a notably tight and coherent range – tighter than either the CPC or pharmaceutical sectors.

- The mirror trade analysis (China corridor, all five HS codes) provides a conservative lower bound of 3.9%–4.6% on a single-corridor basis (Panel A, 40%–50% discount), rising to 7.5%–10.6% on an all-corridor extrapolated basis (Panel B, 30%–50% discount). The all-corridor estimate is used as the primary mirror trade signal, given China's 51% trade-weighted share of total recorded CTFL imports.
- The Stats SA SUT benchmark of 7.3% – derived from adjusted NOE supply across P33, P34 and P35 after stripping out legitimate informal production – sits at the lower end of the preferred mirror trade range and anchors the domestic supply-side ceiling. The convergence between the SUT (7.3%) and the mirror trade Panel B preferred range (7.5%–10.6%) across two entirely independent methodologies strengthens confidence in this range as a robust central estimate.
- The seizure-implied central estimate (5% detection scenario) implies a penetration rate of approximately 2.5%–3.0%, providing a lower-bound cross-check consistent with the conservative end of the mirror trade single-corridor estimate.
- The EUIPO/OECD international benchmark for CTFL places the outer reference range at approximately 3%–5% of sector value, providing a plausibility check. South Africa's estimated range sits above this benchmark, which is consistent with a relatively less regulated import environment and higher informal trade intensity than mature European markets.

Triangulated outcome. Four independent methodologies converge on a range of 3.9%–10.6%. The mirror trade all-corridor estimate (7.5%–9.1%) and the adjusted SUT benchmark (7.3%) anchor the analytical base case at 7%–9%.

For the purposes of economic impact quantification, we have adopted the all-corridors 30% discount estimate of R20.4bn / 10.6%- reflecting the assessment that base-case estimates understate illicit penetration given known enforcement gaps and the diversity of non-China import corridors.

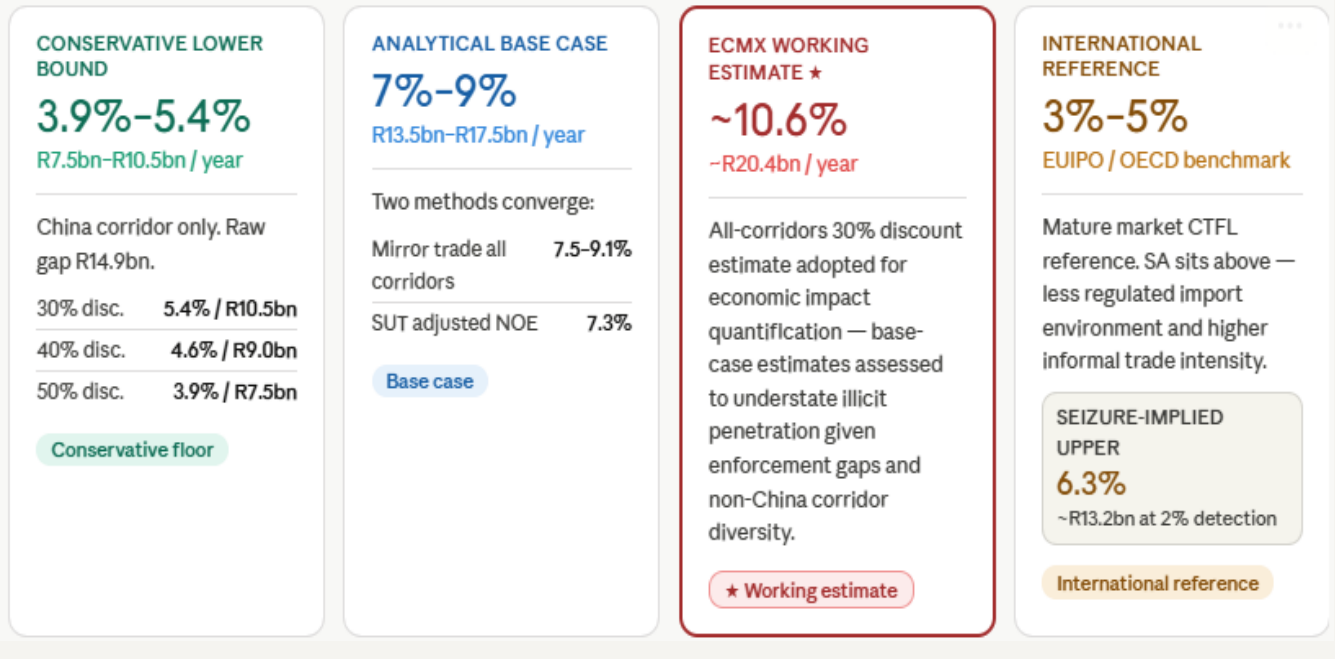


Table 22: Triangulated Estimate of Illicit CTFL Trade Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – CHINA CORRIDOR ONLY (ALL 5 HS CODES) Conservative lower bound					
Mirror trade – raw gap	R14.9bn	–	R14.9bn	R193.5bn †	7.7%
Mirror trade – 30% discount	R14.9bn	−30%	R10.5bn	R193.5bn	5.4%
Mirror trade – 40% discount	R14.9bn	−40%	R9.0bn	R193.5bn	4.6%
Mirror trade – 50% discount	R14.9bn	−50%	R7.5bn	R193.5bn	3.9%
PANEL B – ALL CORRIDORS EXTRAPOLATED (CHINA= 51% OF TOTAL SA CTFL IMPORTS) Primary mirror trade estimate					
All corridors – raw gap (extrapolated)	R29.2bn	–	R29.2bn	R193.5bn	15.1%
All corridors – 30% discount	**R29.2bn**	**−30%**	**R20.4bn**	**R193.5bn**	**10.6%**
All corridors – 40% discount	R29.2bn	−40%	R17.5bn	R193.5bn	9.1%
All corridors – 50% discount	R29.2bn	−50%	R14.6bn	R193.5bn	7.5%
PANEL C – SEIZURE-IMPLIED ESTIMATES Lower-bound cross-check					
Seizure-implied – 10% detection rate	R263m	÷10%	R2.6bn	R207.2bn ‡	1.3%
Seizure-implied – 5% detection rate	R263m	÷5%	R5.3bn	R207.2bn	2.5%
Seizure-implied – 2% detection rate	R263m	÷2%	R13.2bn	R207.2bn	6.3%
PANEL D – CORROBORATING BENCHMARKS					
SUT – adjusted NOE (P33+P34+P35) **Domestic ceiling**	R12.3bn	Informal adjustment §	R12.3bn	R167.7bn §	7.3%
International benchmark (EUIPO /OECD) **International reference**	–	–	–	–	~3%–5%
SCENARIOS					
Conservative scenario Sensitivity / single-corridor floor	–	–	~R7.5bn–R9.0bn	R193.5bn	3.9%–4.6%
Base-case central estimate	–	–	~R13.5bn–R17.5bn	R193.5bn	7%–9%
Upper-bound scenario All-corridor mirror trade/working estimate★	–	–	**~R20.4bn**	R193.5bn	**~10.6%**

★ *The industry-adopted estimate of R20.4bn (10.6%) represents the all-corridors mirror trade estimate at a 30% discount (Panel B). This is the upper end of the mirror trade range and serves as the working estimate for all GDP, fiscal and employment impact calculations in this report. The analytical base-case range of 7%–9% is retained for sensitivity context.*

† Mirror trade denominator = average household expenditure on CTFL products (R193.5bn)

‡ Seizure denominator = R207.2bn (as stated in the table body – just remove the pharmaceutical reference)

§ SUT denominator = average P33+P34+P35 household consumption 2018–2022; NOE supply across P33, P34 and P35.

OECD/EUIPO (2019): cross-border trade in counterfeit clothing, footwear and leather goods estimated at approximately USD 26.3bn in 2016, equivalent to approximately 3.3% of global CTFL import value. Value-based measure; directly comparable to mirror trade estimates in this analysis. South Africa's estimated range of 7%–10.6% sits above this benchmark, which is consistent with a relatively less regulated import environment, higher informal trade intensity and greater exposure to misdeclared imports from major low-cost manufacturing origins than mature European markets

Source: ITC TradeMap; UN Comtrade; SARS Annual Reports; Stats SA Supply-Use Tables 2018–2022; WHO; own calculations.

ECONOMIC IMPACT OF ILLICIT CTFL TRADE IN SOUTH AFRICA



The CTFL Industry's Value Chain and Economic Linkages

The clothing, textile, footwear and leather industry is closely linked to several upstream and downstream industries in the South African economy.

CTFL manufacturing sits at the centre of a broader value chain – from fibre and yarn production through fabric manufacturing, cut-make-trim operations, retail distribution and logistics – and its economic significance extends well beyond direct production through its role as a procurer of energy, packaging, transport, financial services and business support.

- **Upstream**, the sector relies on agriculture (cotton and wool production), livestock and hides from the meat and leather industries, and chemicals and petrochemicals used to produce synthetic fibres and dyes. These inputs are processed through spinning, weaving, tanning, and fabric finishing, before moving into clothing and footwear manufacturing.
- Downstream, CTFL products are distributed through wholesale trade, retail, and informal markets, and supply a wide range of end-use sectors including household textiles, fashion retail, hospitality (linen and furnishings), and industrial applications.

  As a result, the CTFL industry forms part of an integrated value chain linking agriculture, manufacturing, chemicals, logistics, and retail services.

> However, this value chain is under increasing pressure. Key drivers of sector strain include **intensifying import competition from low-cost Asian manufacturers**, **illicit trade and customs misdeclaration**, and weak investment in domestic manufacturing capacity.
>
> Together, these factors have constrained innovation, eroded competitiveness, and contributed to firm closures, particularly among **small and medium-sized manufacturers**.

Economic Impact of Illicit CTFL Trade

Introduction

The illicit CTFL trade imposes high economic costs on South Africa's formal clothing, textiles, footwear and leather sector. The upper-bound illicit market estimate of R20.4 billion per year represents expenditure diverted away from formal, tax-paying businesses and into illicit supply channels. However, this does not translate directly into an equivalent loss of GDP, nor does it fully capture the broader economic consequences of illicit trade.

Beyond displaced sales, illicit trade weakens the competitiveness of compliant firms, erodes pricing power, discourages investment and limits employment creation. Over time, sustained illicit competition can contribute to factory closures, loss of skills, supply-chain fragmentation, and the gradual erosion of domestic manufacturing capacity.

The economic impact of illicit CTFL trade operates through several interconnected channels:

- Displaced manufacturing output – domestic producers are undercut by misdeclared, undervalued or counterfeit imports, reducing production volumes and utilisation rates;
- Reduced wholesale and retail activity – formal businesses lose sales to illicit and non-compliant channels, reducing margins and economic activity within the formal sector;
- Foregone tax revenue – VAT, customs duties and other taxes associated with displaced formal activity are lost to the fiscus;
- Employment losses – illicit trade displaces activity from formal value chains, reducing employment opportunities and income generation;
- Suppressed investment and industrial development – persistent illicit competition weakens incentives for business expansion, modernisation and long-term investment; and
- Organised trade crime and customs fraud – illicit CTFL trade is often linked to broader networks involved in smuggling, customs evasion and other forms of organised economic crime.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using the upper-bound illicit market estimate of R20.4 billion. Broader structural impacts on investment, industrial development and long-term competitiveness are discussed qualitatively but are not directly quantified.

Methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and does not include broader economy-wide multiplier effects in the central estimates.

While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household spending and lower business activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors.

The direct-impact approach provides a conservative and transparent estimate of the economic costs associated with illicit trade. As a result, the impacts presented in this report should be interpreted as a lower-bound estimate of the true economic cost of illicit trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit CTFL Trade

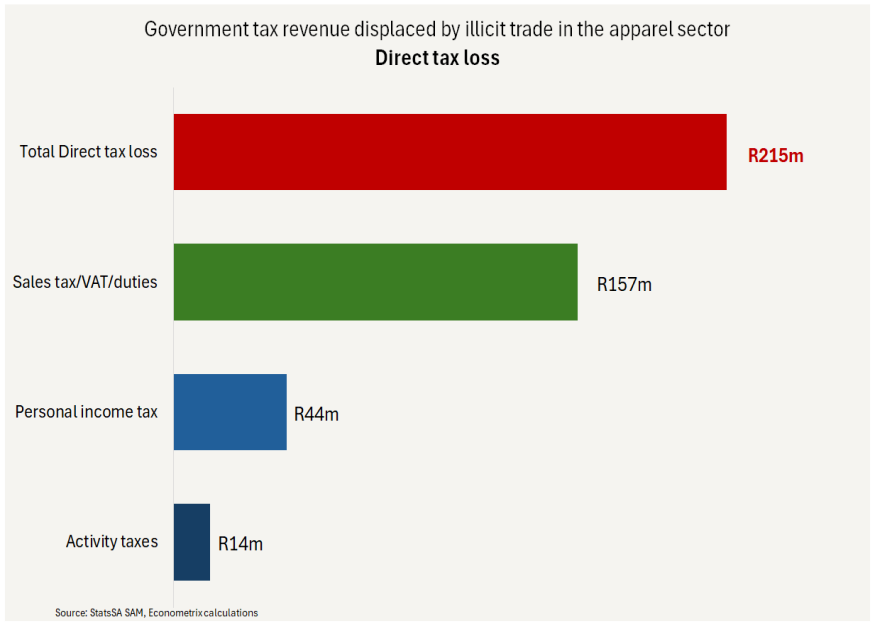
The CTFL sector is an important contributor to South Africa's tax base, generating approximately **R47.4 billion in direct government revenue** through VAT, customs duties, personal income tax and other activity-related taxes. Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.



The fiscal suppression effect

Based on the estimated size of the illicit market, CTFL-related illicit trade is estimated to result in approximately **R2.5 billion in direct tax losses annually**.

Consequently, direct tax revenue from the sector could increase from approximately R47.4 billion currently to an estimated R49.9 billion if the demand currently captured by illicit trade were redirected to compliant operators.



The overwhelming majority of this loss – approximately R2.4 billion (96.9%) – arises from foregone VAT, customs duties and related taxes on products.

This is consistent with the findings in the study, which indicate that illicit CTFL trade is predominantly import-driven and characterised by customs misdeclaration, undervaluation and other forms of border-related tax evasion.

Personal income tax losses are estimated at approximately **R55 million**, while activity-related taxes account for a further **R22 million**.

The fiscal argument for enforcement

The estimated R2.5 billion annual tax loss represents revenue that could potentially be recovered through improved customs enforcement, importer compliance, risk-based inspections and measures aimed at reducing under-invoicing, misdeclaration and smuggling.

Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance within existing tax frameworks.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Apparel Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit CTFL trade using a three-step approach.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the CTFL sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R20.4 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R6.1 billion, the estimate equates to approximately R4.7 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit CTFL trade is estimated at R3.7 billion annually, comprising two components:

- Direct GVA displaced: R1.3 billion – derived by applying the sector's GVA-to-output ratio of 26.5% (SUT-derived) to the displaced production output of R4.7 billion. This measures the loss of value added within the sector itself.
- Foregone taxes on products: R2.4 billion – taxes on products associated with displaced formal activity that accrue to government rather than the sector, and are therefore reported separately from sector GVA.

Key methodological notes

- The R20.4 billion illicit market estimate represents the study's working estimate and should be interpreted as the maximum plausible economic cost of illicit trade. Impacts under the base-case estimate would be proportionally lower.
- The analysis estimates economic activity *currently displaced* by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.
- The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- **South Africa's CTFL sector is highly import-dependent**. As a result, illicit imports displace domestic value added not only in manufacturing, but also across wholesale trade, logistics, warehousing, retail and related business services – without generating the associated formal-sector economic contribution.

- **Where illicit goods compete directly with locally manufactured products, the impact is more severe**. In these cases, illicit trade suppresses factory output, reduces investment incentives, places pressure on employment and contributes to the long-term erosion of South Africa's domestic textile and apparel manufacturing base.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R30.7bn
2	Illicit market estimate (formal-equivalent prices)	R20.4bn
	Less: trade and transport margins	–R6.1bn
	= Displaced formal production output (at basic prices) *	R4.7bn
	× Sector GVA/output ratio (SUT-derived)	26.5%
3a	= Direct GVA displaced by illicit trade	R1.3bn
3b	+ Foregone taxes on products due to displaced activity	R2.4bn
3c	= Direct GDP impact of illicit trade	R3.7bn
COUNTERFACTUAL	Direct CTFL GVA if illicit trade were eliminated	R32.0bn

* After converting the estimate from purchasers' prices to basic prices by removing taxes on products, customs duties, VAT, and trade and transport margins, the estimate equates to approximately R4.7 billion in displaced formal sector production output.

Counterfactual = estimated direct CTFL sector GVA if illicit CTFL trade were eliminated and displaced consumption shifted to the formal sector.

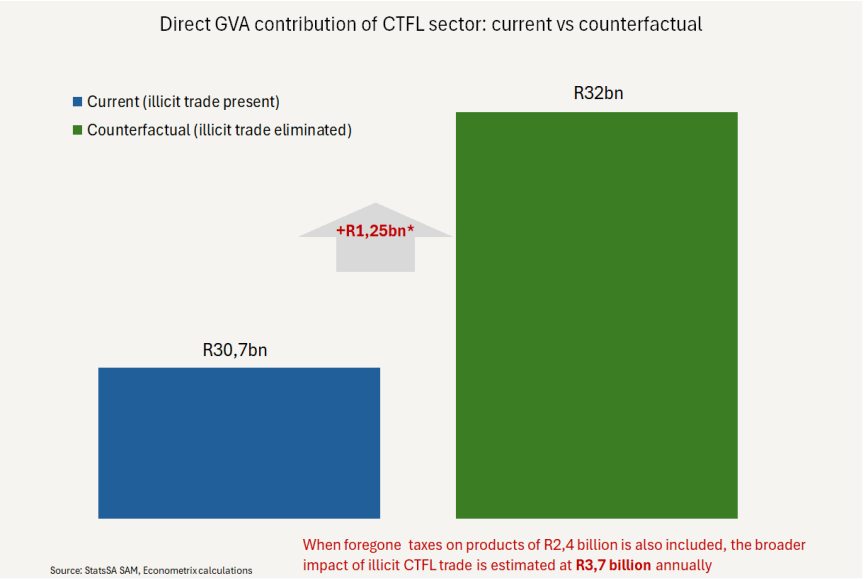
Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R30.7bn	**R1.3bn**	**R3.7bn**	**R32bn**	**R4.7bn**
0.5% of total SA GVA	annually through illicit apparel trade	Direct GVA displaced (R1.3bn) *plus* foregone taxes on products due to displaced activity (R2.4bn) †		annually by illicit apparel trade (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include VAT, customs duties and any other product taxes associated with CPC products. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R20.4 billion of CTFL consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying businesses.

Under the working estimate, this is estimated to displace approximately R4.7 billion in formal-sector production output, R1.3 billion in direct sector GVA and R3.7 billion in total GDP impact annually.



As a result, the measured economic contribution of the CTFL sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Because illicit CTFL trade is primarily import-driven, the economic benefits of improved enforcement extend well beyond the recovery of customs duties and VAT.

More effective detection of customs misdeclaration, undervaluation and tariff fraud would redirect demand towards compliant importers and domestic manufacturers, supporting higher formal-sector production, investment and value added across manufacturing, logistics, warehousing, wholesale and retail.

Strengthening customs risk profiling, post-clearance audits, intelligence-led inspections and inter-agency coordination therefore has the potential to support economic growth while reinforcing the competitiveness of compliant businesses and slowing the long-term erosion of South Africa's domestic clothing, textile, footwear and leather manufacturing base.

Contribution To SA's Employment and the Impact of Illicit Apparel Trade

The CTFL sector occupies a strategically important position in South Africa's industrial economy and remains one of the country's most labour-intensive manufacturing industries.

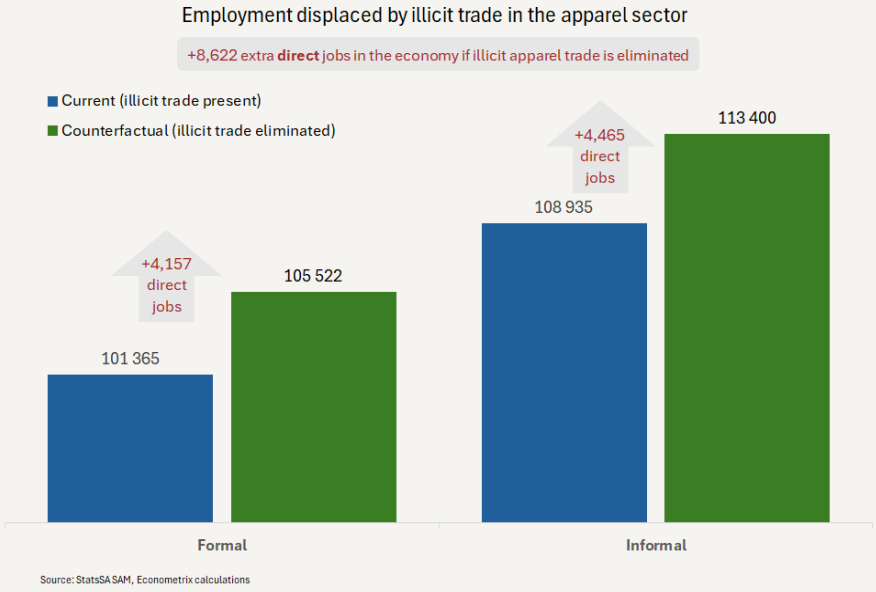
- The formal workforce is dominated by semi-skilled employees, who account for approximately **68.0%** of formal employment, while **18.9%** are unskilled and **13.1%** are skilled workers. As a result, illicit trade disproportionately affects a workforce concentrated in production and manufacturing occupations.
- The sector also exhibits a **high degree of informality**, with informal workers accounting for approximately **51.8%** (108,906) of total direct employment, underscoring its importance as a source of livelihoods across a wide range of communities.
- By diverting demand away from compliant manufacturers and retailers, illicit trade suppresses investment, production growth and employment creation across the formal CTFL value chain, while also undermining income opportunities throughout the broader industry.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Semi-skilled formal job share
210,300 jobs	**8,622 jobs**	**218,922**	**68%**
Formal: 101,365 (48.2%) Informal: 108,935 (51.8%)	Formal: 4,157 Informal: 4,465	*(formal and informal)*	Displacement falls disproportionately on semi-skilled workers.

The employment suppression effect

The apparel sector employs approximately 210,300 people currently.

Applying the direct GVA displacement ratio of 4.1%[18] to current employment levels suggests that approximately 8,622 direct formal and informal jobs are displaced by illicit trade.



Total direct-sector employment could potentially reach approximately 218,922 direct formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant businesses.

These jobs represent employment that could potentially be supported across the clothing, textiles, footwear and leather value chain, including manufacturing, wholesale, logistics, retail and related business services.

The broader employment impact would extend well beyond the sector itself. The CTFL sector currently supports approximately 840,312 formal and informal jobs across the South African economy through extensive upstream and

[18] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

downstream value-chain linkages, indicating that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

The employment argument for enforcement

The employment impact of illicit trade extends beyond lost sales. By diverting demand away from compliant manufacturers, wholesalers and retailers, illicit trade reduces incentives for investment, business expansion and workforce growth.

Given the sector's concentration of unskilled and vulnerable workers, reducing illicit trade could help support employment retention and strengthen one of South Africa's most labour-intensive manufacturing industries.

SECTOR CHAPTER

07

Illicit Food Market

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R677bn
Annual food consumption
(average, SARB, 2019–2025)

310,342
Direct employment (formal + informal)
81% formal workforce

R119.1bn
Direct sector GVA contribution
~1.8% of SA GVA

20%
China's trade-weighted share of SA food basket imports
Primary recorded import corridor

PRIMARY FORMS OF ILLICIT TRADE

1	**Unlawful imports — misdeclaration, undervaluation & under-recording.** Mirror trade gaps across selected food categories; tariff misclassification, customs undervaluation and volume under-declaration; largest estimated source of illicit food trade by value.	Highest
2	**Sale of expired, relabelled or repackaged food.** Enforcement inspections repeatedly uncover expired & non-compliant products in informal channels; date tampering and repackaging are significant retail-level mechanisms.	High
3	**Counterfeit, simulated & adulterated food products.** Mislabelled food products, imitation-packaged foods; ingredient substitution and undeclared inputs; direct consumer health risk.	High

KEY DEMAND DRIVERS

- **Affordability pressure** — food inflation, weak income growth and unemployment make price the dominant purchase driver.
- **Access & convenience** — spaza shops, informal traders and street vendors offer proximity, flexible pack sizes & informal credit.
- **Normalised informal purchasing** — illicit food demand is embedded in everyday household consumption, not deliberate criminal participation.

KEY SUPPLY ENABLERS — TIER 1

- **Fragmented food control system** — responsibilities split across national, provincial and municipal bodies with coordination gaps.
- **Low cost of entry** — repackaging, relabelling and adulteration require minimal capital; easy to scale through informal networks.
- **Limited testing capacity** — food fraud detection requires laboratory verification; capacity is limited and unevenly distributed.

ILLICIT FOOD SUPPLY CHAIN — IMPORT & DOMESTIC CHANNELS

1	2	3	4	5
Origin	**Border Entry ★**	**Domestic Origin ★★**	**Distribution**	**Retail**
Imports (China, Asia & regional neighbours) + Domestic informal production	Ports & land borders **Misdeclaration & undervaluation**	Informal production, relabelling, repackaging & adulteration **Not in customs data**	Informal wholesalers, spaza distribution & street vendors	Spaza shops, informal markets, low-oversight formal retail

★ Border entry — customs misdeclaration and undervaluation occur at both ports and land borders. · ★★ Domestic origin — informal production, relabelling, repackaging and adulteration constitute major illicit channels that are largely invisible to customs data, distinguishing the food sector from most other sectors in this study.

ILLICIT PENETRATION RATE — FOOD (WORKING ESTIMATE)

5.5%
Illicit penetration rate

~R26bn
per year

The upper-bound estimate of 5.5% (~R26bn) is adopted as the working estimate for GDP, fiscal and employment modelling. The base-case estimate of 2%–3% is assessed to materially understate total illicit food activity because customs-based mirror trade captures only a small share of illicit food supply. Domestic informal production and land-border flows represent the dominant but largely unobserved component.

FISCAL DISPLACEMENT — ILLICIT FOOD TRADE

CURRENT SECTOR TAX BASE

R58.0bn

Annual government revenue from food sector

Sales taxes R48.8bn · PIT R6.3bn · Activity R3.0bn

ANNUAL TAX LOSS — ILLICIT TRADE

R1.5bn

Direct fiscal cost of illicit food trade annually

VAT & duties R1.3bn (84%) · PIT R162m · Activity R77m

NATURE OF THE LOSS

84% of loss is VAT & customs duties — a border enforcement problem.

Recoverable within existing customs and food regulatory frameworks.

POTENTIAL IF DEMAND REDIRECTED

R59.5bn

Potential tax revenue if illicit food demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT FOOD TRADE

R119.1bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R13.7bn

Formal-sector production output displaced annually

At basic prices

R2.9bn

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R4.2bn

Direct GDP impact annually

GVA R2.9bn + foregone taxes on products R1.3bn

~R122bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT FOOD TRADE

310,342

direct jobs

Formal: 251,104 (80.9%) · Informal: 59,238 (19.1%)

7,759

jobs displaced

Formal: 6,529 · Informal: 1,540

50.2%

semi-skilled formal share

Displacement falls disproportionately on semi-skilled workers, with a further 38.7% affecting unskilled workers

318,101

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were redirected towards compliant businesses



GVA = gross value added; measures the sector's direct economic contribution before production taxes.
GDP impact = GVA plus foregone taxes on products. ·
Employment displacement applies a 2.5% direct GVA displacement rate to current direct employment levels. ·
Tax loss is a direct estimate; ***broader multiplier effects are not included to avoid double-counting.***

OVERVIEW OF ILLICIT FOOD MARKET IN SOUTH AFRICA

Global overview

- Illicit food trade is an increasingly significant and complex feature of global consumer markets, encompassing a wide range of activities including counterfeit food production, illegal imports, adulteration, mislabelling, diversion of legitimate products, and the sale of expired or otherwise non-compliant goods. Unlike many other illicit consumer markets, food is a daily necessity with high purchase frequency and relatively low product-level scrutiny, which lowers barriers to consumer uptake and enables illicit goods to circulate widely across both formal and informal channels.
- Globally, the illicit food trade is driven by strong economic incentives. These include the ability to substitute lower-cost ingredients, misrepresent quality or origin, and bypass import and regulatory costs. International evidence suggests that illicit food activity is most prevalent where supply chains are difficult to monitor, enforcement is inconsistent, and consumers are highly price sensitive. In these environments, food fraud can occur at multiple points in the value chain, from production and processing through to distribution and retail, making detection and enforcement particularly difficult.

Structural vulnerabilities in the food value chain

- The food sector is structurally vulnerable to illicit trade because it combines high and inelastic consumer demand, complex supply chains, and product categories where quality and compliance are difficult for consumers to verify. Unlike more tightly regulated sectors, many food products rely heavily on trust-based attributes such as branding, packaging, expiry dates, ingredient declarations, and country-of-origin labelling – all of which can be manipulated through repackaging, adulteration, relabelling or substitution.
- Importantly, illicit food is not limited to outright counterfeit products. It also includes grey-market imports, diverted goods, relabelled expired stock, and simulated branded products made with cheaper or undisclosed inputs. This diversity complicates detection and regulation, with illicit food ranging from non-compliant products to those posing safety risks.
- In South Africa, these vulnerabilities are amplified by a large and growing informal retail sector, including spaza shops, informal traders and low-cost community-based retail channels. South Africa's large informal economy – employing an estimated 5.1-5.7 million people[19] and supported by a vast network of approximately 100,000-150,000 unregulated spaza shops[19] – creates an extensive and difficult-to-regulate retail environment through which illicit food products can circulate at scale. While this sector plays an important role in food access and livelihoods, it also creates distribution channels that are difficult to monitor and regulate consistently.
- Importantly, the presence of informal and low-cost retail channels should not be conflated with illicit trade itself. These channels play a critical role in food access, affordability and convenience, but their fragmentation and uneven regulation can create conditions that enable illicit and non-compliant products to enter and circulate more easily. Combined with porous borders, illicit import routes, limited traceability, and weak oversight across parts of the food supply chain, these structural features create conditions in which illicit food can enter and circulate widely.

Public health and consumer protection significance

- Illicit food is not only a trade and regulatory issue, but also a major public health and consumer protection concern. Counterfeit, adulterated, expired, or improperly handled food products may be produced, stored or distributed without complying with hygiene, safety or labelling standards, thereby increasing the risk of

[19] *Source: StatsSA*

contamination, toxic exposure, foodborne illness and nutritional harm. However, not all illicit food products carry the same level of health risk. Some are primarily compliance, tax or distribution issues, while others – particularly adulterated, tampered or falsely labelled goods – pose more direct and potentially severe threats to consumer safety.

- Recent enforcement actions in South Africa have increasingly highlighted the seriousness of the problem, with inspections uncovering unsafe, expired and non-compliant food products and, in some cases, linking unsafe goods to serious illness and fatalities in vulnerable communities. These risks are often most acute in lower-income areas, where consumers are highly price sensitive, access to formal retail may be limited, and product verification at the point of purchase is often weak. Consumer confusion around labelling – particularly the distinction between best-before, use-by and expiry dates – can further reduce the ability to distinguish between discounted but legal stock, grey-market products, and genuinely unsafe or fraudulent goods.

South African context

- The illicit food market in South Africa is not a marginal or purely informal phenomenon operating at the edge of the economy. It is a broad and increasingly embedded parallel market involving both organised and informal supply. Illicit food products enter the market through a combination of illegally imported goods, grey-market products, counterfeit branded items, repackaged or expired food, and domestically produced goods manufactured or processed in unregulated facilities. These products are then distributed through fragmented wholesale and retail networks, often reaching consumers through informal and highly price-driven channels.
- On the demand side, affordability is a central driver. Persistently high unemployment, weak income growth, elevated food inflation and deep household financial strain have increased demand for lower-cost alternatives, particularly among lower-income and highly price-sensitive consumers. In this environment, many households are increasingly willing to trade down in price even where product authenticity or compliance may be uncertain. As with other illicit consumer markets, demand is often shaped less by criminal intent than by economic survival, convenience and limited purchasing power. This sustains demand for illicit food products that are cheaper, more accessible or more readily available than their compliant counterparts.
- At the same time, South Africa's regulatory and enforcement environment remains uneven. Food control responsibilities are fragmented across multiple institutions, inspection capacity is limited, testing and laboratory resources are unevenly distributed, and penalties are often too weak to act as an effective deterrent. These enforcement gaps are compounded by the scale of informal trade, the difficulty of tracing products through fragmented supply chains, and the growing sophistication of food fraud practices.

Scale and market significance

- Although the full scale of the illicit food trade in South Africa remains difficult to quantify due to underreporting, limited detection and definitional ambiguity, available evidence suggests that the problem is widespread and growing. The repeated discovery of counterfeit and expired food products, increased enforcement activity, rising concern around food safety in informal retail, and persistent weaknesses in product traceability all point to a deeply embedded illicit food ecosystem.
- Importantly, illicit food trade in South Africa should be understood as a market-driven phenomenon rather than merely opportunistic or isolated criminal activity. It expands in response to predictable economic incentives – including affordability pressures, weak enforcement, fragmented retail structures and opportunities for regulatory evasion – enabling operators to scale, adapt and compete directly with legitimate producers and distributors. As a result, illicit food trade poses a growing threat not only to public health and consumer safety, but also to fair competition, formal-sector growth, tax compliance and confidence in the broader food system.

STRUCTURE AND DRIVERS OF ILLICIT FOOD TRADE

Forms of illicit food trade in South Africa: ranked assessment

The illicit food trade in South Africa takes multiple forms across import, distribution, retail and production channels. Consistent with international definitions of food fraud and illicit food trade, this includes not only counterfeit goods, but also adulteration, substitution, mislabelling, smuggling, grey-market trade and the sale of products outside legitimate regulatory and distribution systems. The ranking below reflects an analytical assessment of the forms of illicit food trade most relevant to the South African market.

RANK	FORM OF ILLICIT TRADE	SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Unlawful imports (misdeclaration, undervaluation, under-recording)**	**Highest – dominant economic channel**	Mirror trade discrepancies across selected food categories, together with enforcement evidence and border vulnerabilities, suggest that misdeclared, undervalued and under-recorded imports are a major entry channel for illicit food products. This likely includes tariff misclassification, customs undervaluation and under-reported volumes.
2	**Sale of expired, relabelled or repackaged food**	**High – widespread consumer-facing risk**	South African enforcement inspections have repeatedly uncovered expired and non-compliant food products being sold through informal and low-oversight channels. Relabelling, date tampering and repackaging appear to be significant retail-level mechanisms through which illicit food reaches consumers, particularly where consumer understanding of best-before, use-by and expiry dates is limited.
3	**Counterfeit, simulated and adulterated food products**	**High – major consumer deception and health-risk category**	Includes products that imitate legitimate brands, substitute ingredients, dilute product content, or use undeclared, lower-cost or non-compliant inputs. South African evidence includes mislabelled fish, counterfeit olive oil, undeclared meat species and imitation packaged foods, highlighting the breadth of this category and its direct implications for consumer deception and food safety.
4	**Informal and unregulated distribution channels (spaza shops, street traders, informal wholesalers)**	**High – major enabling distribution channel**	South Africa's extensive informal retail economy creates a broad, low-visibility distribution environment through which illicit, grey-market and non-compliant food products can circulate. These channels are not inherently illicit, but fragmented sourcing, uneven regulation and weak inspection coverage make them a major route to market.
5	**Grey-market trade and diverted goods**	**Moderate**	Includes legally produced food that is imported, diverted, rerouted or sold outside authorised channels, often without proper tax treatment, labelling compliance or traceability. These products may be genuine, but they bypass legitimate commercial and regulatory pathways and can become difficult to distinguish from compliant stock once redistributed.
6	**Smuggling / fully undeclared imports**	**Moderate**	Includes food products entering through land borders, informal crossings, passenger baggage, or small-scale transport without declaration. These flows are not captured in formal trade data and are difficult to quantify, but likely contribute to the illicit food

RANK	FORM OF ILLICIT TRADE	SIGNIFICANCE	EVIDENCE AND INDICATORS
			ecosystem, particularly in border-adjacent and informal trading environments.
7	**Unlicensed or non-compliant manufacturing, processing, repackaging or relabelling**	**Moderate–Low**	Includes food products manufactured, processed, packed or relabelled outside regulated facilities or without compliance with health, hygiene, traceability and labelling standards. This may include small-scale informal operations supplying counterfeit or low-cost substitute products, often in environments where inspection and laboratory verification are limited.
8	**Online and small-parcel food trade**	**Low but emerging**	Limited but growing evidence suggests that food-related products – particularly supplements, imported packaged goods, niche products and wellness items – are increasingly sold through e-commerce, social media and courier channels. Consumers' limited ability to inspect products before purchase, together with weak platform accountability and parcel oversight, increases the risk of misrepresentation and non-compliance.
9	**Local under-declaration or non-compliance within formal manufacturing or retail**	**Lowest**	Likely less prevalent than import- and informal distribution-related channels, given the comparatively formalised and regulated nature of South Africa's large-scale food manufacturing and formal retail environment. However, isolated cases of mislabelling, substitution or internal non-compliance may still occur.

***Note**: Due to the lack of comprehensive quantitative data measuring the relative scale of different illicit trade channels in the food sector, this ranking should be interpreted as indicative rather than definitive. It reflects an analytical assessment based on enforcement evidence, observed trade irregularities, industry patterns, and international typologies of food fraud and illicit food trade.*

The illicit food trade in South Africa is primarily import- and distribution-driven rather than production-driven.

- Unlawful imports appear to be the main economic channel,
- while expired, adulterated, counterfeit and simulated food products pose the greatest direct consumer protection and food safety risks.

These forms are often interconnected and enabled by fragmented supply chains, weak traceability, informal retail networks and uneven enforcement capacity.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Affordability pressure and price sensitivity	Food is a daily necessity, and sustained pressure on household budgets makes price the dominant purchase driver for many consumers. Elevated food inflation, weak income growth, unemployment and broader cost-of-living pressures increase demand for cheaper alternatives, even when product authenticity, origin or compliance may be uncertain. In this context, illicit or non-compliant food products can gain traction when they are perceived to offer immediate savings compared to formal retail alternatives.	Highest
Access, convenience and proximity advantages	Illicit and non-compliant food products are often sold through highly accessible local channels such as spaza shops, informal traders, street vendors and community-based retail outlets. For many consumers, these channels offer proximity, convenience, flexible pack sizes, informal credit and faster access than formal supermarkets or compliant supply chains. This can make illicit products easier to purchase as part of routine household consumption.	Highest
Weak consumer ability to verify authenticity or compliance	Most consumers are unable to determine whether a food product is counterfeit, adulterated, expired, relabelled or otherwise non-compliant based on appearance alone. Packaging, branding, expiry labels and product presentation may closely resemble those of legitimate goods, particularly for packaged foods and branded staples. This does not directly create demand, but it significantly weakens a major deterrent to purchase.	High
Normalisation of informal and low-cost purchasing channels	In many communities, purchasing food through informal and low-cost retail channels is normal, socially accepted and often economically necessary. Where informal retail is deeply embedded in daily life, consumers may not clearly distinguish between legal, grey-market and illicit goods, especially when products are widely available and sold alongside legitimate stock. This normalisation can reduce scrutiny and increase demand for low-cost but non-compliant products.	High
Consumer confusion around labelling and expiry dates	A limited understanding of the distinction between expiry, use-by and best-before dates can reduce consumer caution and create opportunities to sell expired, relabelled or repackaged food. In some cases, consumers may knowingly purchase short-dated or damaged goods at a discount; in others, they may not realise that labelling has been tampered with or that the product is unsafe or non-compliant.	High
Demand for branded goods at lower prices	Illicit food demand is often concentrated in recognisable, high-trust branded products where consumers seek the perceived assurance of known brands but at a lower price point. This creates demand for counterfeit, simulated or repackaged versions of branded packaged foods, beverages, condiments and staple grocery items. Well-known brands are particularly vulnerable where consumers use packaging familiarity as a proxy for quality.	Moderate–High
Household trade-down behaviour and constrained purchasing power	As disposable incomes come under pressure, many households trade down not only across brands but also across retail channels, pack formats and quality tiers. This behaviour can unintentionally increase exposure to illicit food, particularly where lower-cost alternatives are sourced through fragmented or weakly regulated channels. The risk is amplified where consumers prioritise quantity and affordability over provenance or compliance.	Moderate–High
Trust in local sellers and informal community networks	Consumers often rely on familiar local traders, informal wholesalers, community recommendations and neighbourhood retail relationships when purchasing food. This trust can reduce perceived risk and increase willingness to buy products without formal quality assurance, particularly where the seller is known personally or socially embedded in the area.	Moderate
Weak consumer awareness of broader harms	Many consumers may not fully appreciate that illicit food can involve undeclared ingredients, contamination, adulteration, substitution, expired stock or unsafe handling practices. Awareness is also often limited regarding the broader economic harms, including pressure on compliant manufacturers, reduced tax collection and erosion of trust in the food system.	Moderate
Perceived low risk of purchase	Purchasing low-cost or non-compliant food products through informal or grey channels generally carries little perceived legal, reputational or social risk for consumers. Consumer-facing enforcement is limited, and illicit food purchases are often viewed as routine bargain-seeking rather than participation in an illicit market. This weakens behavioural deterrence, allowing demand to persist.	Moderate

Demand for illicit food in South Africa is driven less by deliberate criminal intent than by a combination of affordability pressure, convenience, low product scrutiny and normalised informal purchasing behaviour. Unlike pharmaceuticals or tobacco, illicit food demand is often embedded in everyday household consumption, meaning that price, access and trust in familiar local channels can outweigh concerns around legality, traceability or compliance.

Supply Side Enablers of Illicit Food Trade

Supply-side enablers are organised into three tiers based on their assessed impact on the scale and persistence of illicit food trade in South Africa. Tier 1 factors are the primary structural drivers; Tiers 2 and 3 are compounding or contextual factors that amplify the effect of Tier 1 conditions.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High import exposure and complex food supply chains South Africa imports a wide range of processed foods, ingredients and intermediate inputs. Long, multi-origin and fragmented supply chains increase the risk of misdeclaration, undervaluation, substitution, adulteration and diversion, particularly where traceability is limited, and product verification is difficult at scale.	**Fragmented food control system and weak enforcement coordination** Food safety and control responsibilities are distributed across multiple national, provincial and municipal bodies, including environmental health services, agriculture and trade authorities. Overlapping mandates, coordination gaps and uneven capacity reduce the effectiveness of enforcement and deterrence.
Strong incentives to bypass compliance, tax and quality controls Illicit operators can avoid customs duties, VAT, regulatory compliance costs, labelling requirements, quality assurance processes and formal distribution margins. This creates strong commercial incentives to import, manufacture or distribute food products outside regulated channels.	**Limited inspection, testing and laboratory capacity** Detection of food fraud often requires laboratory verification, yet testing capacity is limited and unevenly distributed. This constrains both detection and prosecution, allowing illicit activity to persist with relatively low risk of identification.
Low cost of entry and high scalability in informal and semi-formal markets Unlike highly regulated sectors, food products can often be repackaged, relabelled, diluted or substituted with relatively low capital investment. This lowers barriers to entry for illicit operators and enables rapid scaling through informal retail networks.	**Weak deterrence due to low penalties and limited enforcement outcomes** Penalties for food safety violations are often low relative to potential illicit gains, and enforcement is frequently reactive. Limited prosecutions and inconsistent follow-through reduce the perceived risk for illicit operators.
Tier 2 – Structural & Systemic Drivers	
Large informal and semi-formal retail and wholesale ecosystem South Africa's extensive informal economy provides multiple downstream routes for illicit food distribution, including spaza shops, street traders, informal wholesalers and community-based retail networks. These channels increase reach and reduce traceability.	**Complex and evolving labelling regulations with uneven enforcement** Food labelling requirements are extensive and sometimes complex, creating compliance challenges and enforcement gaps. Weak enforcement of labelling standards enables mislabelling, undeclared ingredients and misleading product claims.
Global and regional trade routing and re-export dynamics Food products may be routed through multiple jurisdictions, intermediaries or redistribution hubs, obscuring origin and weakening traceability. This can facilitate misinvoicing, relabelling and grey-market diversion.	**Regulatory lag in e-commerce and digital food sales oversight** The growth of online food sales, social media distribution and courier-based delivery has outpaced regulatory adaptation. Platform accountability, seller verification and parcel-level oversight remain limited.
Ease of product substitution, dilution and relabelling across categories Many food products are inherently difficult to authenticate visually, allowing substitution (e.g. species replacement in meat), dilution (e.g. oils, beverages) and relabelling (e.g. expiry dates, origin) to occur with a relatively low risk of detection.	**Limited cross-border coordination and intelligence sharing** Weak coordination with exporting and transit countries reduces the ability to verify origin, detect re-routed shipments and identify high-risk trade flows.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 3 – Market-Level & Contextual Factors	
Difficulty of product authentication at point of sale Many food products cannot be easily verified by consumers or inspectors without laboratory testing, particularly processed, packaged or mixed-ingredient goods. This creates an inherent enforcement asymmetry.	**Absence of integrated traceability and track-and-trace systems** South Africa does not operate a comprehensive, system-wide traceability framework for food products across the supply chain, limiting the ability to track provenance, detect diversion and respond quickly to food fraud incidents.
Consumer demand for low-cost and accessible food options Strong demand-side pressure for affordability and convenience reinforces supply-side incentives, particularly in lower-income and price-sensitive segments.	**Limited consumer-facing verification and reporting mechanisms** Consumers have limited access to simple tools to verify product authenticity or report suspected food fraud, reducing bottom-up detection and feedback loops.
South Africa's role as a regional trade and distribution hub South Africa functions as both a destination market and a redistribution point for food products in the region, increasing throughput volumes and complexity of monitoring legitimate versus illicit flows.	**Reactive rather than preventive enforcement approach** Food control systems remain largely reactive (inspection, seizure, incident response) rather than preventive (risk-based monitoring, supply chain transparency, proactive detection systems).

Sources: Author analysis based on WTO, OECD/EUIPO, TRACIT, South African food fraud and food safety literature, PMG parliamentary briefings, and selected media and policy sources.

Illicit food trade in South Africa is enabled by a combination of strong commercial incentives, fragmented regulation, weak detection capacity and highly accessible informal distribution networks.

- Import complexity and compliance cost avoidance drive supply,
- while limited enforcement capacity and low deterrence allow illicit activity to persist,
- and informal retail networks enable rapid distribution at scale.

These factors interact to create a system in which illicit food trade is structurally embedded rather than opportunistic.

The Illicit Food Supply Chain | Five-stage flow

1 ORIGIN

Global Production & Sourcing — BEYOND SA JURISDICTION — LIMITED DIRECT INTERVENTION

KEY SOURCE REGIONS

> Asia · Middle East · selected African producers/intermediaries · regional trade partners · global food manufacturing and packaging hubs

Illicit food products may originate as: counterfeit branded goods, adulterated or substituted food products, expired or relabelled stock, grey-market or diverted goods, non-compliant imports, or products manufactured outside regulated food safety systems.

ENFORCEMENT LEVER

Many food products or ingredients originate outside South Africa's direct regulatory reach. Intervention requires **international customs cooperation**, food safety information sharing, exporter/importer verification, stronger use of Codex/WTO/customs risk frameworks, and collaboration with source-country regulators and trade partners.

2 TRANSIT

Re-Export Hubs & Indirect Routing — TIER 1 OPACITY & EVASION MECHANISM

KEY HUBS / ROUTING PATHWAYS

> Dubai · Hong Kong · Singapore · regional transit hubs · free trade / redistribution zones

Food products may be re-exported through free zones, re-invoiced, relabelled, consolidated with other consignments, or routed through third countries before entering SA. Relevant for: packaged foods, oils, processed foods, beverages, ingredients, additives, mixed consignments.

ENFORCEMENT IMPLICATION

Indirect routing can: **obscure product origin, weaken traceability, break bilateral trade trails**, and reduce the usefulness of simple mirror-trade comparisons. This requires multi-country trade analysis, transit-country intelligence sharing, stronger importer due diligence, and risk-based customs targeting.

3 BORDER ENTRY ★

Formal Import Channels & Borders — ★ PRIMARY CUSTOMS, BORDER & FOOD CONTROL POINT

KEY ENTRY POINTS

> Durban · Cape Town · OR Tambo · Beitbridge · land border posts · postal/courier systems

COMMON ILLICIT ENTRY MECHANISMS

Misdeclaration of tariff heading, undervaluation, under-recording of quantity, HS misclassification, undeclared/partially declared consignments, small-parcel/courier shipments to avoid scrutiny, importation of non-compliant/falsely labelled food products.

ENFORCEMENT IMPLICATION

This is the **main fiscal and regulatory intervention point**, where customs evasion, import fraud, and regulatory non-compliance are most likely to occur. SARS plays the lead role in customs compliance; port health/food safety/inspection authorities are relevant for food safety, standards and compliance. Parcel, courier and mixed-container flows increase evasion risk and reduce detection probability.

4 POST-BORDER DISTRIBUTION

Formal, Informal & Diverted Channels — BLENDED DISTRIBUTION ARCHITECTURE

KEY DISTRIBUTION PATHWAYS

> Informal distributors & wholesalers · diverted stock from formal supply chains · grey-market resale · informal retail and community-level resale · repackaging/relabelling nodes · wholesale leakage into informal channels

Illicit food supply includes both underground distribution, and products that enter through legitimate channels but are later diverted, relabelled, adulterated or sold outside authorised controls.

ENFORCEMENT IMPLICATION

This stage is often **harder to detect than border entry** because products may appear outwardly legitimate, be mixed with genuine stock, and be redistributed in fragmented wholesale and informal retail networks. Effective intervention requires market surveillance, wholesaler/distributor oversight, food premises inspections, traceability and stock monitoring, stronger coordination between SARS, BMA, municipal health, food safety authorities and law enforcement.

5 RETAIL & DISPENSING

Multiple Routes to Consumer — FINAL ACCESS POINT — HIGHEST CONSUMER & HEALTH RISK

Channel 1
Informal physical retail

Importer/wholesaler/informal distributor → spaza shops/informal traders/small independent retailers/street vendors → consumer

- Traditional & dominant consumer-facing route. Highly price-driven, difficult to regulate.

Channel 2
Diverted & low-oversight wholesale/retail

Supplier/importer/distributor → bulk-breaking/secondary resale/informal wholesalers/non-compliant retailers → consumer

- Includes diverted, grey-market, short-dated, repackaged or relabelled stock. Often blends genuine and non-compliant products.

Channel 3
Online / social media sales

Supplier/importer/informal seller → e-commerce/Facebook/WhatsApp/social media/courier delivery → consumer

- Smaller but emerging route. Relevant for niche, imported, branded, wellness & packaged products. Platform accountability remains limited.

Channel 4
Community & informal trust networks

Local seller/informal distributor/neighbourhood network → consumer

- Important in lower-income and localised retail environments. Trust in familiar sellers can reduce perceived risk & scrutiny.

ENFORCEMENT IMPLICATION

This is the highest point of risk for public health and consumer protection. Key issues include the sale of expired, relabelled or adulterated products, weak product traceability, limited consumer ability to verify legitimacy, and limited oversight of informal and digital retail channels. Requires stronger market surveillance, better enforcement of labelling requirements, targeted inspections, digital marketplace oversight, consumer education and reporting mechanisms.

Source: WTO, OECD/EUIPO, TRACIT, academic literature, parliamentary briefings, and selected media and policy sources.

SCALE OF ILLICIT FOOD – PENETRATION RATE

Methodological approach

Direct measurement of illicit food trade is inherently difficult because counterfeit, falsified, smuggled and non-compliant food products are deliberately designed to evade detection and formal reporting. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the illicit trade penetration rate in South Africa's food sector using two complementary methods. The seizure-implied method is not applied here because SARS does not separately report food-specific customs seizures in its annual reports – food misdeclaration is captured within broader undeclared goods categories that cannot be reliably disaggregated. The international benchmarking method is similarly limited for food, as globally comparable estimates of illicit food penetration are unavailable at the bilateral trade corridor level. The analysis therefore relies on mirror trade and Supply-Use Table benchmarks as the two primary methods.

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror trade analysis	Import misdeclaration, undervaluation and under-recorded imports	UN Comtrade / ITC TradeMap	Primary quantitative indicator of illicit market entry via import misdeclaration and undervaluation
2. Supply-Use Table benchmark	Non-observed domestic market activity in food categories	Stats SA Supply-Use Tables	Domestic cross-check of non-observed production and consumption activity

Together, these methods distinguish between illicit market entry – reflected in trade and customs indicators – and domestic market penetration, reflected in non-observed activity captured in the SUTs. The final penetration range is derived from the convergence across both methods and should be interpreted as a directional, evidence-based estimate of illicit food trade in South Africa. Given the more limited methodological base available for food, the estimates carry greater uncertainty than in other sectors covered by this study and should be interpreted accordingly.

In the food sector, the boundary between informal, non-compliant and illicit trade is less clearly defined than in regulated sectors such as pharmaceuticals. Informal food production and distribution are widespread and largely legitimate in South Africa, which introduces additional complexity into the interpretation of indicators for the non-observed economy – explicitly addressed in the SUT benchmark section below.

Estimating the Size of the Food Market

The South African Reserve Bank (SARB) national accounts series for household consumption expenditure on food, beverages and tobacco provides the starting point for the market-size denominator. This series is used in preference to formal retail data because it is published in nominal terms – consistent with the nominal rand values used in the mirror trade analysis – and captures household spending across both formal and informal channels, providing a more complete representation of the total market in which illicit goods circulate.

Because the SARB category combines food, beverages and tobacco, an allocation is required to isolate the food component. Two official Stats SA sources inform this allocation.[20]

- The 2022/23 Income and Expenditure Survey indicates that food accounts for approximately 85.3% of the combined category on a narrow expenditure basis (food 15.1%, non-alcoholic beverages 1.2%, alcoholic beverages and tobacco 1.4% of total household expenditure).
- The 2023 Consumer Price Index basket weights imply a lower food share of approximately 73.6% on a price-weighted basis (food: 16.84; non-alcoholic beverages: 1.39; alcoholic beverages and tobacco: 4.64). A food allocation range of 73.6%–85.3% is applied, with a central estimate of 79.5%.

This yields an estimated average annual South African food market of approximately R627 billion–R726 billion over 2019–2025, with a central estimate of approximately R677 billion.

Adjusted denominator – China corridor basket

For headline penetration rate calculations, the R677 billion total food market denominator is adjusted to reflect only those food categories corresponding to the ten HS chapters in the consolidated mirror trade basket, rather than total household food consumption. Using total food consumption as the denominator would dilute the illicit trade signal across categories where China is not a material supplier, thereby understating the true penetration rate within the relevant product segments.

Drawing on CPI basket weights and IES 2022/23 expenditure shares, the relevant categories – including dairy, fish, vegetables, meat and fish preparations, cereals, sugar and confectionery, preserved fruit and vegetables, and miscellaneous food preparations – account for approximately 55%–58% of total food household consumption, with a midpoint of 57% applied. (The 57% allocation is derived by mapping each of the ten HS chapters in the mirror trade basket to the closest CPI sub-category and IES expenditure line, and summing the corresponding weights.)

This yields an adjusted average annual denominator of approximately R386 billion, used as the core market denominator for all headline penetration rate calculations. The unadjusted R677 billion figure is retained for the broad food market context only.

Table 23: Estimated Food Market Size - South Africa

YEAR	HOUSEHOLD CONSUMPTION OF FOOD, BEVERAGES AND TOBACCO (NOMINAL)	FOOD CONSUMPTION: CENTRAL ESTIMATE (79.5%)
2019	R697,2bn	R554,3bn
2020	R677,3bn	R538,5bn
2021	R749,8bn	R596,1bn
2022	R865,1bn	R687,7bn
2023	R930,5bn	R739,7bn
2024	R984,5bn	R782,6bn
2025	R1055,6bn	R839,2bn
Average	**R851,4bn**	**R676,9bn**
ADJUSTED MARKET DENOMINATOR - CHINA CORRIDOR BASKET		
Food Consumption: China Corridor Basket – (Central Estimate, 57%)		**R385,8bn**

Source: Statistics South Africa; South African Reserve Bank; own estimates

[20] *While the IES and CPI weights are not directly comparable – reflecting expenditure shares and price weights respectively – their convergence provides a reasonable bounded estimate of the CPC share within the broader category.*

Method 1: Mirror Trade Analysis[21]

Conceptual basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate under-recording of imports, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains. While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative – though not definitive – of underlying trade frictions or potential misreporting.[22]

HS code coverage and China–South Africa food trade corridor

A consolidated basket of ten HS chapters is constructed, spanning two sub-categories: processed and packaged consumer food, and commodity and biosecurity risk categories.

China is selected as the focal corridor because it participates consistently across all ten HS chapters, with import shares ranging from low single digits to over 30% in certain processed food categories. Across the consolidated basket, China accounts for approximately 20% of South Africa's recorded food imports by value (trade-weighted, 2019–2025) – making it the most suitable corridor for a unified and internally consistent mirror trade assessment.

Other significant corridors, including India, Thailand, Vietnam, and SADC neighbours, are either concentrated in specific product categories or subject to structural undercounting due to land-border flows not captured in Comtrade, rendering a multi-corridor analysis methodologically inconsistent.

Table 24: China–South Africa food trade corridor – HS basket composition and China import share, 2019–2025 average

BASKET	HS	PRODUCT CATEGORY	CHINA'S SHARE 2019-25
Processed/ packaged consumer food	04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, ...	3%
	16	Preparations of meat, fish, crustaceans, molluscs or other aquatic invertebrates, or ...	25%
	17	Sugars and sugar confectionery	5%
	19	Preparations of cereals, flour, starch or milk; pastrycooks' products	3%
	20	Preparations of vegetables, fruit, nuts or other parts of plants	33%
	21	Miscellaneous edible preparations	4%
Commodity/ biosecurity risk	03	Fish and crustaceans, molluscs and other aquatic invertebrates	8%
	07	Edible vegetables and certain roots and tubers	16%
	09*	Coffee, tea, maté and spices	7%
	11	Products of the milling industry: malt; starches; insulin; wheat gluten	5%

[21] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[22] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

* *HS 09 is retained on the basis of spice trade flows (principally pepper and ginger, HS 0904 and 0910), which account for the material share of China–South Africa trade within this chapter. Coffee (HS 0901) and tea (HS 0902) represent negligible China-origin volumes relative to world imports and do not drive the corridor inclusion.*

Because the analysis covers a single corridor, results should be interpreted as a partial, lower-bound indicator of potential import irregularities. Total misdeclaration across all source countries is likely understated, and penetration estimates should be regarded as conservative.

Mirror trade results

Table 25: China–South Africa Food Trade: Mirror Analysis and Import Discrepancies (Average Annual, 2019-2025)

BASKET	HS CODE & PRODUCT		CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP (EXPORTS MINUS IMPORTS)	GAP (RAND)	GAP AS % EXPORTS
Processed/ packaged consumer food	04	Dairy & animal products	$7.1m	$4.9m	$2.2m	R36,6m	31%
	16	Processed meat & seafood	$40.6m	$31.3m	$9.3m	R147,3m	23%
	17	Sugar & confectionery	$29.4m	$23.7m	$5.7m	R98,0m	19%
	19	Cereal & bakery products	$8.3m	$7.8m	$0.4m	R8,1m	5%
	20	Processed fruit & vegetables	$98.1m	$92.0m	$6.1m	R99,9m	6%
	21	Miscellaneous food preparations	$20.6m	$15.6m	$4.9m	R81,1m	24%
Commodity/ biosecurity risk	03	Fish & seafood (fresh/frozen)	$31.4m	$22.9m	$8.5m	R142,0m	27%
	07	Vegetables & roots	$19.6m	$20.3m	-$0.7m	-R13,9m‡	-4%
	09	Coffee, tea & spices	$18.2m	$15.9m	$2.4m	R39,7m	13%
	11	Milling products & starches	$6.4m	$7.1m	-$0.8m	-R12,9m‡	-12%
Total 10 HS codes			$279,6m	$241.6m	$38.1m	**R625.8m**	14%

Source: ITC TradeMap, Comtrade.

‡ HS 07 (edible vegetables) and HS 11 (milling products) exhibit negative mirror-trade gaps – South Africa records higher imports from China than China reports exporting. This pattern is consistent with re-export routing via intermediary hubs or timing and classification differences, and does not provide a usable signal of import under-recording. These two categories are retained in the total for completeness, but their negative gaps partially offset the positive gaps in other categories, making the aggregate R626 million gap a conservative estimate of the true positive discrepancy across the basket.

Eight of the ten HS codes exhibit positive gaps, with the largest discrepancies in dairy and animal products (31%), fish and seafood (27%) and processed meat and seafood (23%). For commodity and biosecurity risk categories, the understatement is more structural – significant volumes of edible vegetables (HS 07) and related products enter South Africa through land borders from Zimbabwe, Mozambique, Eswatini and Namibia and are largely unrecorded in Comtrade, meaning no mirror trade comparison is possible for these flows regardless of origin corridor. The consolidated gap of approximately R626 million per year should therefore be interpreted as a conservative lower-bound estimate of potential import irregularities rather than a central measure of total illicit food trade.

Noise discount and corridor adjustment framework

Several structural factors can generate bilateral trade gaps independently of illicit activity and must be acknowledged:

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export via third countries (e.g. Dubai, Hong Kong)	Reduces apparent SA imports from China	Significant in processed food categories – goods manufactured in China are sometimes re-declared via the UAE or Hong Kong before entering South Africa, partially obscuring the true country of origin. Cannot account for the full magnitude or persistence of the gap across eight HS codes
Trade recording timing differences	Minor bilateral misalignment	Small effect – typically under 2% and unlikely to explain a persistent multi-year gap
Classification and reporting differences	Minor HS-level discrepancies	Limited at the HS2 level – broad chapter classifications reduce but do not eliminate this risk
Informal and undeclared trade not captured	Reduces SA recorded imports	Relevant particularly for commodity categories – land border flows from neighbouring countries are structurally absent from Comtrade, meaning SA's recorded imports are likely understated

Because these factors can inflate bilateral discrepancies independently of illicit activity, a downward adjustment is required. International studies by the OECD and Global Financial Integrity typically apply noise discounts of 30%–60%. For the food sector, a 30%–50% range is applied – wider than, for example, the pharmaceutical range (30%–40%) to reflect greater re-export routing in processed food supply chains, but not as high as CTFL (40%–50%) given that food supply chains are generally more directly traceable than apparel. A 40% discount is treated as the central estimate.

Two estimation panels are used.

- Panel A reflects the observed China corridor gap only and represents a conservative floor.
- Panel B extrapolates the China corridor misdeclaration rate across all import corridors by dividing the observed gap by China's 20% trade-weighted import share, yielding an implied all-corridor gap of approximately R3.1 billion.

  This extrapolation assumes the misdeclaration rate observed on the China corridor is broadly representative of other corridors – an assumption that is conservative given that land border flows from neighbouring countries are structurally undercounted in Comtrade and likely exhibit higher under-recording rates.

Table 26: Mirror-Trade Matrix – Average Annual, 2019–2025

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE (SELECTED HS CODES)	FOOD CONSUMPTION: CHINA CORRIDOR BASKET (CENTRAL ESTIMATE) †	ILLICIT PENETRATION RATE
PANEL A: CHINA CORRIDOR ONLY					
Raw gap	R626m	None	R626m	R385.8bn	0.16%
30% noise discount	R626m	−30%	R438m	R385.8bn	0.11%
40% noise discount	R626m	−40%	R376m	R385.8bn	0.10%
50% noise discount	R626m	−50%	R313m	R385.8bn	0.08%
PANEL B: ALL CORRIDOR EXTRAPOLATION (CHINA = 20% OF BASKET IMPORTS)‡					
Raw gap	R3,1bn	None	R3,1bn	R385.8bn	0.8%
30% noise discount	R3,1bn	−30%	R2,2bn	R385.8bn	0.6%
40% noise discount	R3,1bn	−40%	R1,9bn	R385.8bn	0.5%
50% noise discount	R3,1bn	−50%	R1,6bn	R385.8bn	0.4%

† Denominator = average annual household consumption across the ten HS basket categories, 2019–2025 (R385.8bn). Derived by applying a 57% allocation to the total food market central estimate of R677bn, reflecting the share of total food consumption attributable to the basket categories. See Table 1.

‡ All-corridor gap derived by dividing the China corridor gap (R626m) by China's 20% trade-weighted share of total recorded SA food basket imports. Assumes the misdeclaration rate observed on the China corridor is broadly representative of other import corridors.
Source: ITC TradeMap, UN Comtrade; own calculations.

- Panel B is used as the primary estimate. Applying a 30%–50% noise discount to the all-corridor extrapolation yields a central penetration range of 0.4%–0.6% of the adjusted domestic basket market, with a central estimate of approximately 0.5% at the 40% discount (approximately R1.9 billion per year).
- Panel A (China corridor only) implies a conservative single-corridor floor of 0.08%–0.16%, reinforcing that the full market impact is likely closer to the all-corridor estimate.

Both estimates are conservative: land border flows from neighbouring countries are structurally absent from Comtrade, meaning the true all-corridor gap exceeds R3.1 billion, and the two negative-gap categories (HS 07 and HS 11) partially suppress the aggregate positive discrepancy.

Method 2: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

Twelve SUT product codes are relevant to the ten HS chapters analysed in the mirror trade section, spanning two sub-categories consistent with the mirror trade basket structure:

FOOD SUB-CATEGORY	SUT CODES	PRODUCTS
Commodity/biosecurity risk	P2, P5, P19	Vegetables and fruits; fish and seafood; grain mill products and starches
Processed/packaged consumer food	P13, P14, P15, P16, P18, P21, P22, P23, P24	Meat; prepared fish; prepared vegetables; prepared fruit and nuts; dairy and eggs; bakery products; sugar; cocoa and chocolate; food n.e.c.

The supply table records a non-observed economy (NOE) supply figure for each code, representing output entering the market through informal, unregistered or illicit channels.

Interpreting the NOE supply figure – adjusting for legitimate informal production

The food sector presents the most complex informal production landscape of any sector analysed in this report. Unlike pharmaceuticals (where informal legitimate production is negligible), or CTFL (where it is significant but bounded), food has widespread informal production across virtually every product category, from subsistence vegetable growing and artisanal fishing to home bakeries, township butcheries and informal food processors.

A direct application of the raw NOE supply figure would substantially overstate illicit penetration by including large volumes of legitimate informal activity.

The NOE supply captures a mix of activity that is not uniformly illicit:

COMPONENT	ILLICIT?
Smallholder and subsistence farmers selling informally (P2)	Not illicit; informal but legal and widespread
Artisanal and small-scale fishers selling outside formal channels (P5)	Not illicit; informal but legal
Township butcheries and informal meat traders (P13)	Not illicit; informal but largely legal; some unlicensed operators
Home bakeries, informal bread and pastry sellers (P21)	Not illicit; informal but legal and very widespread in SA
Small-scale confectionery and food preparation (P23, P24)	Mostly not illicit; informal food processing common in township economies
Undeclared output from registered producers	Tax evasion – illicit
Counterfeit, mislabelled or smuggled product re-entering domestic supply	Illicit
Household production for own consumption	Does not enter market supply; not captured in SUT supply table

To isolate the illicit component, NOE supply and NOE consumption figures are adjusted downward using sector-specific informal production factors. These factors go beyond the employment-based adjustments applied in other sectors covered by this study, reflecting the particularly high level of legitimate informal base in food – especially in fresh produce and artisanal fishing, where employment data substantially understates informal activity.

These adjustment factors are indicative rather than exact, reflecting relative differences in the scale of legitimate informal production across categories. The objective is not to produce precise product-level estimates, but to derive a directionally accurate sector-wide benchmark.

- For P2 (vegetables and fruits), where approximately 50% of NOE supply is attributed to legitimate smallholder and subsistence production, an adjustment factor of ×0.50 is applied – treating 50% of NOE supply as illicit or unrecorded.
- For P5 (fish and seafood), where artisanal fishing is more extensive than employment data alone suggests, a factor of ×0.78 is applied.
- For P19 (grain mill products and starches), where milling is capital-intensive and dominated by large formal producers, a factor of ×0.98 is applied.
- For processed food codes, adjustment factors range from ×0.70 for bakery products (P21), cocoa and confectionery (P23) and food n.e.c. (P24) – reflecting widespread legitimate informal food preparation – to ×0.99 for dairy products (P18), where regulatory requirements make informal legitimate production negligible.
- Meat (P13) is adjusted at ×0.80, reflecting the documented presence of informal township butcheries operating legally outside formal retail channels.
- Sugar (P22) is adjusted at ×0.98, reflecting the highly concentrated and formally structured nature of South African sugar production.

The full schedule of adjustment factors is provided in the table footnotes below.

Table 27: Stats SA Supply-Use Tables – commodity basket (P2, P5, P19), 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R204.1bn	R202.6bn	R254.2bn	R265.7bn	R302.8bn	R245.9bn
Total industry (intermediate) use	R45.3bn	R39.6bn	R55.7bn	R57.4bn	R66.8bn	R53.0bn
Exports	R66.0bn	R67.7bn	R89.3bn	R89.5bn	R104.8bn	R83.5bn
Household consumption	R91.8bn	R96.5bn	R110.1bn	R119.0bn	R133.3bn	R110.1bn
Non-observed use (adjusted) †	R1.4bn	R1.4bn	R1.5bn	R1.3bn	R1.5bn	R1.4bn
Non-observed supply (adjusted)†	R6.1bn	R6.8bn	R7.4bn	R8.6bn	R9.7bn	R7.7bn
NOE supply / HH consumption (adjusted)	**6.7%**	**7.0%**	**6.8%**	**7.2%**	**7.3%**	**7.0%**

Source: Stats SA Supply-Use Tables 2018–2022; own calculations

† Adjustment factors: P2 ×0.50, P5 ×0.78, P19 ×0.98. Applied to both NOE supply and NOE consumption. Unadjusted ratio: 10.0%.

The commodity basket NOE ratio is stable at 7.0% throughout the full period, with a narrow range of 6.7% and 7.3%. The relatively high ratio reflects the large informal supply base in fresh produce and fish – sectors with well-documented informal production that, even after adjustment, retains a material illicit component through undeclared output and unregistered commercial activity.

Table 28: Stats SA Supply-Use Tables – processed food basket (P13–P24), 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R513.8bn	R542.0bn	R561.7bn	R591.6bn	R688.4bn	R579.5bn
Total industry (intermediate) use	R146.4bn	R153.2bn	R165.0bn	R162.7bn	R189.2bn	R163.3bn
Exports	R49.8bn	R50.4bn	R45.8bn	R45.1bn	R51.0bn	R48.4bn
Household consumption	R310.0bn	R328.5bn	R345.4bn	R379.5bn	R435.8bn	R359.9bn
Non-observed use (adjusted)‡	R14.3bn	R14.8bn	R14.9bn	R15.1bn	R16.5bn	R15.1bn
Non-observed supply (adjusted) ‡	R16.9bn	R18.2bn	R16.4bn	R18.7bn	R20.9bn	R18.2bn
NOE supply / HH consumption (adjusted)	**5.5%**	**5.5%**	**4.7%**	**4.9%**	**4.8%**	**5.1%**

Source: Stats SA Supply-Use Tables 2018–2022; own calculations

‡ Adjustment factors: P13 ×0.80; P14 ×0.78; P15 ×0.91; P16 ×0.91; P18 ×0.99; P21 ×0.70; P22 ×0.98; P23 ×0.70; P24 ×0.65. Applied to both NOE supply and NOE consumption. Unadjusted processed food basket ratio: approximately 7.5%.

The processed-food basket ratio averaged **5.1%** over 2018–2022, ranging between 4.7% and 5.5%. This is lower than the commodity basket (7.0%), reflecting the greater formality of industrial food processing, particularly in dairy, sugar and grain milling, where legitimate informal production is negligible. The 2020 figure (4.7%) is the lowest in the series, likely reflecting COVID-19 disruptions to informal food distribution channels rather than a structural change in illicit activity.

Table 29: Stats SA Supply-Use Tables – full food basket (all 12 product codes), 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R717.9bn	R744.6bn	R816.0bn	R857.2bn	R991.2bn	R825.4bn
Total industry (intermediate) use	R191.7bn	R192.9bn	R220.8bn	R220.0bn	R256.0bn	R216.3bn
Exports	R115.8bn	R118.0bn	R135.1bn	R134.6bn	R155.8bn	R131.9bn
Household consumption	R401.8bn	R425.0bn	R455.5bn	R498.5bn	R569.2bn	R470.0bn
Non-observed use (adjusted) §	R15.7bn	R16.2bn	R16.4bn	R16.5bn	R18.0bn	R16.5bn
Non-observed supply (adjusted) §	R23.1bn	R25.0bn	R23.9bn	R27.3bn	R30.6bn	R26.0bn
NOE supply / HH consumption (adjusted)	**5.7%**	**5.9%**	**5.2%**	**5.5%**	**5.4%**	**5.5%**

Source: Stats SA Supply-Use Tables 2018–2022; own calculations.

§ Full adjustment factor schedule: P2 ×0.50; P5 ×0.78; P13 ×0.80; P14 ×0.78; P15 ×0.91; P16 ×0.91; P18 ×0.99; P19 ×0.98; P21 ×0.70; P22 ×0.98; P23 ×0.70; P24 ×0.65. Applied to both NOE supply and NOE consumption. Unadjusted full basket ratio: approximately 8.5%.

The full basket adjusted ratio averages **5.5%** over 2018–2022, ranging narrowly between 5.2% and 5.9%. The lower combined ratio relative to the commodity basket alone (7.0%) reflects the higher formality of processed food manufacturing – particularly dairy, sugar and grain milling – which pulls the overall basket ratio downward.

Even after adjustment, the SUT-based estimate should be interpreted as an upper-bound proxy for unrecorded market activity rather than a direct measure of illicit trade.

The combined ratio reflects the weighted contribution of the two sub-baskets, with the higher-informality commodity categories partially offset by the more formal processed food categories:

Table 30: SUT benchmark – commodity vs processed food basket decomposition, 2018–2022 average

FIGURE	COMMODITY BASKET (P2, P5, P19)	PROCESSED FOOD BASKET (P13–P24)	COMBINED
Household consumption (avg)	R110.1bn	R359.9bn	R470.0bn
NOE supply (adjusted, avg)	R7.7bn	R18.2bn	R26.0bn
NOE consumption (adjusted, avg)	R1.4bn	R15.1bn	R16.5bn
NOE supply / HH consumption	7.0%	5.1%	**5.5%**
NOE supply – NOE consumption gap	R6.3bn	R3.1bn	**R9.4bn**

The commodity basket exhibits a higher NOE ratio (7.0%) than the processed food basket (5.1%), reflecting a larger legitimate informal production base in fresh produce, fish and grain that remains even after the enhanced informal adjustments applied to P2 and P5.

Product-level penetration rates

The adjusted NOE supply figures can be expressed as penetration rates at the individual product code level, providing insight into which food categories carry the highest illicit supply risk. This analysis also allows cross-validation against available industry benchmarks where these exist.

Fish categories (P5 and P14) are combined for this analysis, as the household consumption denominator for fresh and frozen fish (P5) alone is insufficient to capture total fish consumption – most fresh fish enters the supply chain through intermediate processing (P14) before reaching final consumers. The combined P5+P14 penetration rate, therefore, provides a more meaningful measure of illicit activity across the fish and seafood supply chain.

Table 31: Product-level illicit penetration rates – food basket, 2018–2022 average

SUT CODE	PRODUCT	ADJUSTED NOE SUPPLY AVG	HOUSEHOLD CONSUMPTION AVG	ILLICIT PENETRATION RATE	RISK CLASSIFICATION
P5 + P14	Fish and seafood (fresh + prepared, combined)	R4,380m	R16,948m	**25.8%**	Very high
P15	Frozen and canned vegetables	R3,941m	R20,485m	**19.2%**	High
P16	Dried and canned fruit and nuts	R3,177m	R15,663m	**20.3%**	High
P2	Vegetables and fruits (fresh)	R2,450m	R48,164m	**5.1%**	Moderate-high
P18	Dairy products and eggs	R3,611m	R66,265m	**5.5%**	Moderate
P19	Grain mill products and starches	R2,675m	R57,631m	**4.6%**	Moderate
P13	Meat and offal	R5,251m	R124,968m	**4.2%**	Moderate
P21	Bakery products	R372m	R36,496m	**1.0%**	Low
P24	Food n.e.c. (pasta, spices, sauces)	R119m	R51,839m	**0.2%**	Negligible
P22	Sugar	R0m	R10,528m	**0%**	Negligible
P23	Cocoa, chocolate & confectionery	R0m	R24,845m	**0%**	Negligible

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. Adjustment factors as per the full schedule in footnote §. P5 and P14 combined to address denominator limitations of direct household consumption of fresh fish.

The product-level results reveal a highly uneven distribution of illicit activity across the food basket, with three categories accounting for the majority of the estimated non-observed supply.

- **Fish and seafood** (P5+P14 combined, 25.8%) show the highest penetration rate by a substantial margin. This is consistent with well-documented structural challenges in South Africa's fishing sector – including illegal, unreported and unregulated (IUU) fishing, unregistered fish processing operations and informal distribution of fish products outside formal cold chain and labelling requirements. The Department of Forestry, Fisheries and the Environment (DFFE) has identified IUU fishing as a persistent and significant enforcement challenge, and the scale of the NOE supply signal is consistent with a sector in which a large share of catch and processing occurs outside formal recording systems.

- **Canned and preserved produce – frozen and canned vegetables** (P15, 19.2%) and dried and canned fruit and nuts (P16, 20.3%) – also show materially elevated penetration rates. These categories are characterised by documented concerns about substandard, mislabelled and counterfeit canned goods circulating in South African retail and wholesale markets, including products with falsified expiry dates, incorrect labelling of origin and undeclared ingredients. The high NOE ratios are consistent with a significant share of canned produce supply passing through unregistered or undeclared processing and distribution channels.

- **Fresh vegetables and fruits** (P2, 5.1%), dairy products (P18, 5.5%) and grain mill products (P19, 4.6%) show moderate penetration rates, reflecting the combination of legitimate informal supply – smallholder farming, informal milk sales and unregistered small millers – and genuine illicit activity including undeclared output and substandard product.

- **Meat and offal** (P13, 4.2%) shows a moderate rate consistent with the documented presence of informal township butcheries and unlicensed slaughter operations, though the formal meat processing sector is relatively well-regulated at the abattoir level.

- **Bakery products** (P21, 1.0%) show a low penetration rate – consistent with and independently corroborated by the South African Chamber of Baking, which estimates illicit bakery market penetration at approximately 1%–3%. The SUT-derived figure of 1.0% sits at the lower end of this range, providing independent corroboration

of the adjustment methodology applied and supporting the use of the broader SUT basket as a reliable directional indicator.

- **Sugar** (P22) and cocoa and chocolate (P23) show zero NOE supply, consistent with the highly concentrated and formally structured nature of both industries in South Africa – sugar production is dominated by two large producers and chocolate manufacturing by a small number of registered formal processors.

A further structural insight: the NOE supply-consumption gap

After applying the same adjustment factors to NOE consumption, adjusted non-observed consumption of the full food basket averaged approximately R16.5 billion per year over 2018–2022 – materially lower than the adjusted NOE supply of R26.0 billion over the same period.

The gap of approximately R9.4 billion per year implies that a substantial share of illicitly produced or unrecorded food products is not confined to informal retail markets but is instead entering formal and semi-formal distribution networks – including supermarkets, wholesale markets and food service channels.

This is consistent with documented patterns of mislabelled, substandard or counterfeit food products circulating within formal supply chains alongside legitimate products.

The gap is concentrated in the commodity basket (R6.3 billion) rather than the processed food basket (R3.1 billion), reflecting the particularly large informal supply base for fresh produce, fish and grain relative to informal consumption through identifiable informal channels.

This suggests that a meaningful share of fresh produce and fish entering formal retail channels may be sourced through unrecorded or undeclared supply chains.

The NOE consumption figure is not used as a standalone penetration estimate, as it captures all informal consumption, including purchases of legitimately produced informal goods. It is retained as structural corroborating evidence that illicit and unrecorded food supply circulates through mixed formal and informal channels, consistent with the broader findings of this analysis.

Relationship to mirror trade results

The adjusted SUT domestic ceiling of 5.5% is substantially higher than the mirror trade all-corridor central estimate of 0.5% (Panel B, 40% discount). This divergence is expected and analytically informative rather than contradictory. The two methods measure fundamentally different dimensions of food illicit activity.

- The mirror trade analysis captures import-side misdeclaration on recorded bilateral trade flows – primarily undervaluation and underdeclaration of commercially imported products. It structurally excludes domestic informal production, land-border flows from neighbouring countries, and the informal distribution of legitimately produced goods.
- The SUT benchmark captures total domestic non-observed supply across all channels – import-origin and domestically produced, formal and informal entry points combined. In the food sector, domestic informal production and land border flows are likely the dominant channels for non-observed supply, dwarfing import misdeclaration on recorded trade corridors.

The gap between 0.5% (mirror trade) and 5.5% (SUT) therefore reflects the structural dominance of domestic and land-border supply channels in food illicit activity – a finding consistent with South Africa's food sector characteristics and distinct from other sectors covered in this study, where import channels play a more central role. The SUT figure is used as the domestic supply-side ceiling in the penetration triangulation, while the mirror trade estimate is retained as the conservative import-side lower bound.

Penetration Rate Matrix: Triangulated outcome

The two methods applied in this analysis capture distinct dimensions of illicit food activity and produce a wide but analytically coherent range – wider than in other sectors in this report - reflecting both the methodological limitations specific to food and the structural dominance of domestic and land-border supply channels over import misdeclaration.

- The mirror trade analysis (China corridor, all ten HS codes) provides a conservative import-side lower bound of 0.08%–0.16% on a single-corridor basis (Panel A), rising to 0.4%–0.6% on an all-corridor extrapolated basis (Panel B, 30%–50% discount). The all-corridor estimate (Panel B) is used as the primary mirror trade signal, given China's 20% trade-weighted share of total recorded food basket imports.
- The SUT benchmark of 5.5% – derived from adjusted NOE supply across twelve product codes after stripping out legitimate informal production – anchors the domestic supply-side ceiling. The wide gap between these two signals (0.5% vs 5.5%) is not a methodological inconsistency but reflects the fact that import misdeclaration is a relatively small component of total food illicit activity, with domestic informal supply and land border flows being the dominant channels.
- No international benchmark is directly available for food illicit trade penetration at a comparable level of granularity. The WHO estimates that approximately 10% of food products globally may be adulterated or fraudulent, though this figure is not directly comparable to a value-based penetration rate. It is noted here as a broad contextual reference only.

Triangulated outcome. Estimates range from a conservative import-side floor of 0.4%–0.6% to a domestic supply-side ceiling of 5.5%, with a base-case central estimate of 2%–3%. The wide range – wider than any other sector in this report – reflects the structural dominance of domestic informal supply and land-border flows over import misdeclaration as the primary channels of illicit food activity, and the higher level of legitimate informal content embedded in the SUT measure even after adjustment.

For economic impact quantification, the upper-bound estimate of 5.5% (~R26.0bn) has been adopted as the working estimate for all GDP, fiscal and employment impact modelling. This reflects the assessment that the base-case central estimate of 2%–3% materially understates total illicit food activity, given that customs-based mirror trade captures only a fraction of non-observed food supply – with domestic informal channels and land-border flows representing the dominant but largely unobserved component. The base-case range of 2%–3% is retained for sensitivity context.

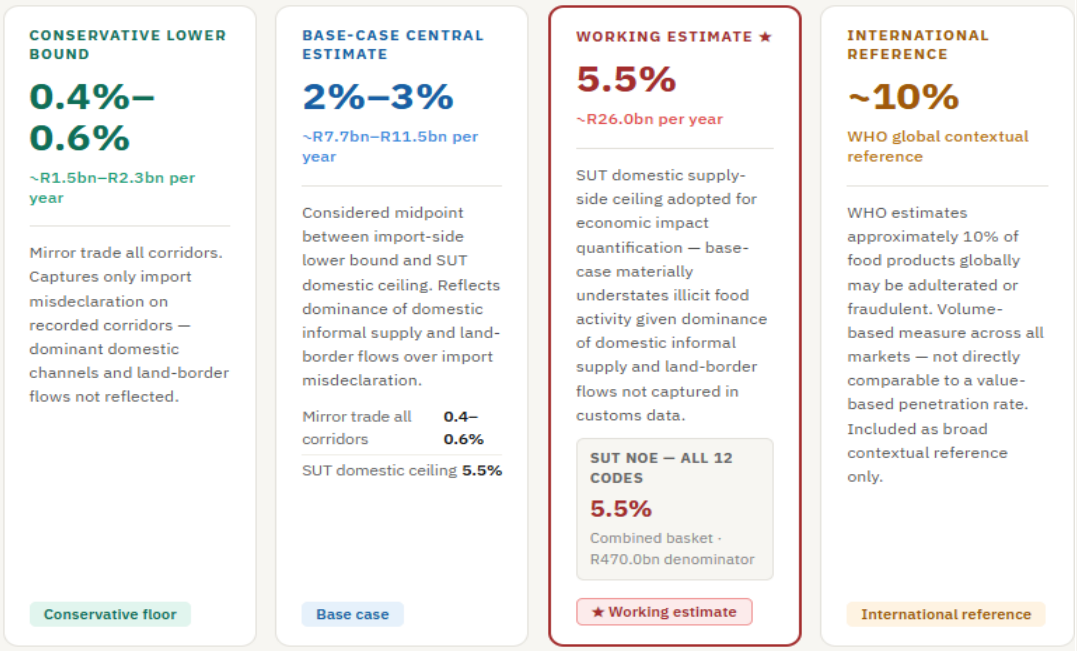


Table 32: Triangulated Estimate of Illicit Food Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – CHINA CORRIDOR ONLY (ALL 10 HS CODES) Single-corridor floor					
Mirror trade – raw gap	R626m	–	R626m	R385.8bn †	**0.26%**
Mirror trade – 30% discount	R626m	−30%	R438m	R385.8bn	**0.11%**
Mirror trade – 40% discount	R626m	−40%	R376m	R385.8bn	**0.10%**
Mirror trade – 50% discount	R626m	−50%	R313m	R385.8bn	**0.08%**
PANEL B-ALL CORRIDORS EXTRAPOLATED (CHINA=20% OF SA FOOD BASKET IMPORTS) Primary mirror trade estimate					
All corridors – raw gap (extrapolated)	R3.1bn	–	R3.1bn	R385.8bn	**0.8%**
All corridors – 30% discount	R3.1bn	−30%	R2.2bn	R385.8bn	**0.6%**
All corridors – 40% discount	R3.1bn	−40%	R1.9bn	R385.8bn	**0.5%**
All corridors – 50% discount	R3.1bn	−50%	R1.6bn	R385.8bn	**0.4%**
PANEL C – SUT BENCHMARK Domestic supply-side ceiling					
Full basket NOE – commodity sub-basket (P2, P5, P19)	R7.7bn	Informal adjustment §	R7.7bn	R110.1bn §	**7.0%**
Full basket NOE – processed food sub-basket (P13–P24)	R18.2bn	Informal adjustment §	R18.2bn	R359.9bn §	**5.1%**
Full basket NOE – combined (all 12 codes) Domestic ceiling	R26.0bn	Informal adjustment §	R26.0bn	R470.0bn §	**5.5%**
PANEL D – INTERNATIONAL REFERENCE					
WHO global food adulteration estimate* International Ceiling/contextual reference only	–	–	–	–	**~10%**
SCENARIOS					
Conservative scenario Sensitivity / import-side floor	–	–	~R1.5bn–R2.3bn	R385.8bn	**0.4%–0.6%**
Base-case central estimate	–	–	~R7.7bn–R11.5bn	R385.8bn	**2%–3%**
Upper-bound scenario ★ SUT domestic ceiling/working estimate	–	–	**~R26.0bn**	R470.0bn	**5.5%**

★ *For the purposes of economic impact quantification, the upper-bound estimate of 5.5% (~R26.0bn) has been adopted as the working estimate for all GDP, fiscal and employment impact modelling. This reflects the assessment that the base-case central estimate of 2%–3% – anchored primarily in import-side mirror trade – materially understates total illicit food activity, given that domestic informal supply and land-border flows are the dominant channels of illicit food penetration in South Africa and are not fully captured in customs-based methodologies. The base-case range of 2%–3% is retained for sensitivity context.*

† *Mirror trade denominator = average annual household consumption across the ten HS basket categories, 2019–2025 (R385.8bn). Derived by applying a 57% allocation to the total food market central estimate of R677bn.*

§ *SUT denominators = average household consumption from the Use table, 2018–2022. Commodity basket: R110.1bn; processed food basket: R359.9bn; combined: R470.0bn. NOE supply figures adjusted for legitimate informal production using sector-specific factors – full schedule in SUT section footnotes.*

* *WHO's global estimate of approximately 10% relates to food adulteration and fraud by volume across all markets globally. It is not directly comparable to a value-based penetration rate for South Africa and is included as a broad contextual reference only.*

Source: ITC TradeMap; UN Comtrade; Stats SA Supply-Use Tables 2018–2022; WHO; own calculations.



The Food Industry's Value Chain and Economic Linkages

South Africa's food manufacturing value chain spans multiple interconnected stages, linking primary production to final consumption through both domestic and international supply channels. The sector is the largest subsector within South Africa's agro-processing industry, characterised by its diversity across key subsectors including maize milling, bakeries, meat processing and horticulture. The industry primarily transforms agricultural inputs into final food products, although it also incorporates imported raw materials and intermediate inputs within its production processes.

- **Upstream**, the sector relies on agricultural production (grains, livestock, fresh produce), imported raw materials, and a range of intermediate inputs such as packaging, additives and processing materials. These inputs are sourced through both formal supply chains and, in some cases, informal or cross-border channels.
- **At the processing stage**, primary processing (e.g. milling, slaughtering, basic preparation) is followed by secondary processing, where products are transformed into higher value-added, packaged and branded food items.
- **Downstream**, products move through distribution networks including logistics providers, warehousing, wholesalers and retailers (formal and informal), before reaching final consumers in domestic markets or through export channels.

The sector is characterised by a mix of large, vertically integrated firms and smaller, less formal producers. Increasingly, supply chains are being streamlined through backward integration, contract farming arrangements and the emergence of direct-to-market channels, including informal retail and digital platforms. These linkages create strong multiplier effects across the broader economy, supporting employment and value creation beyond the core processing activities.

The food manufacturing sector is also economically significant due to the essential nature of its products. Food expenditure accounts for a large share of household consumption, sustaining consistent demand even during periods of economic pressure.

At the same time, the sector includes a substantial informal component, particularly in distribution and small-scale processing, which enhances flexibility and resilience but complicates measurement and regulatory oversight.

> **This structure is important for understanding the risk of illicit trade.** The combination of complex supply chains, multiple entry points (including imports and land-border flows), and varying levels of formality across the value chain creates opportunities for misdeclaration, product substitution, and the circulation of non-compliant or illicit goods, particularly at the import, wholesale and informal retail stages.

Economic Impact of Illicit Food Trade

Introduction

The illicit food trade imposes high economic costs on South Africa's formal food sector, extending beyond the direct market displacement estimate.

The **working estimate of R26 billion per year** (Table 10) represents expenditure on food products diverted from formal, legal supply channels – but it does not translate directly into an equivalent loss of GDP, nor does it fully capture the broader economic consequences of illicit trade.

This distinction is particularly important in the food sector for two reasons.

- First, a meaningful share of South Africa's processed and packaged food consumption is met through imports – particularly across categories such as prepared fish, canned vegetables, confectionery and miscellaneous food preparations – which contribute to domestic value added only indirectly through trade margins, logistics and distribution rather than through local manufacturing.
- Second, and more significantly for food than for any other sector in this report, a portion of the illicit food supply originates from domestic informal production – smallholder farming, artisanal fishing, informal processing – that already generates some economic activity, albeit outside formal channels. The displacement effect on formal sector output is therefore more nuanced than in sectors dominated by import misdeclaration alone.

Beyond displaced sales, illicit trade weakens the competitiveness of compliant food producers and processors, erodes pricing power, discourages investment in food safety and quality assurance, and limits employment creation across the formal value chain.

Over time, sustained illicit competition can erode domestic food manufacturing capacity and reduce incentives for investment in the compliance infrastructure that underpins consumer safety.

The economic impact of illicit food trade operates through several interconnected channels:

- Displaced domestic manufacturing and processing output – formal food producers are undercut by unrecorded, substandard or informally produced products, reducing production volumes and utilisation rates;
- Reduced wholesale and retail activity – formal businesses lose sales to informal and grey-market distribution channels, reducing margins and economic activity within the formal sector;
- Foregone tax revenue – VAT, customs duties and other taxes associated with displaced formal activity are lost to the fiscus;
- Employment losses – illicit trade displaces activity from formal value chains, reducing employment opportunities and income generation from upstream agricultural procurement through to retail;
- Suppressed investment in food safety and compliance – persistent illicit competition weakens incentives for investment in quality assurance, regulatory compliance and food safety infrastructure – a particularly significant channel given the public health consequences of substandard and counterfeit food products reaching consumers; and
- Organised trade crime and customs fraud – illicit food trade is linked to broader networks involved in smuggling, mislabelling, customs evasion and other forms of organised economic crime.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using a working estimate of R26 billion.

Broader structural impacts on investment, food safety infrastructure and long-term competitiveness are discussed qualitatively but are not directly quantified.

Methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and does not include broader economy-wide multiplier effects in the central estimates. While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household spending and lower business activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors.

The direct-impact approach provides a conservative and transparent estimate of the economic costs associated with illicit trade. As a result, the impacts presented in this report should be interpreted as a lower-bound estimate of the true economic cost of illicit food trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Food Trade

The food sector is an important contributor to South Africa's tax base, generating approximately R58.0 billion in direct government revenue through VAT, customs duties, personal income tax and other activity-related taxes.

Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.



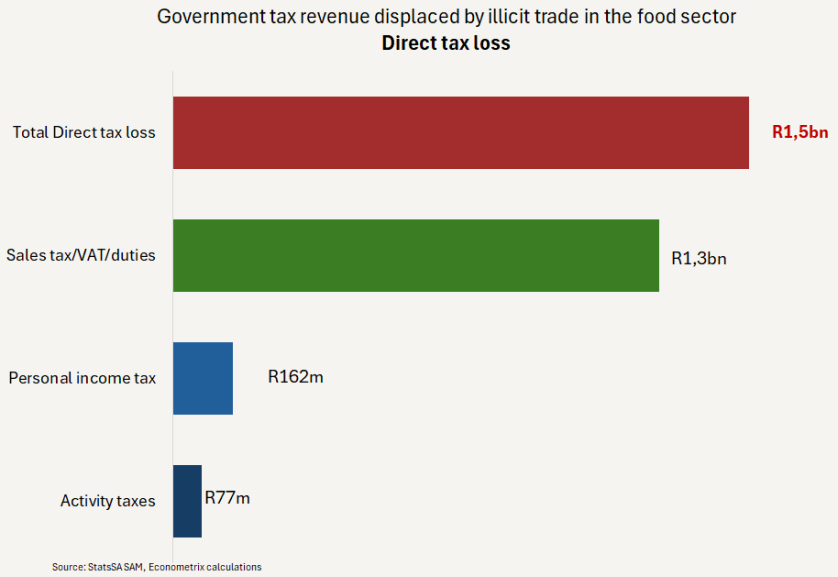
The fiscal suppression effect

Based on a working estimate of R26 billion, the illicit food trade is estimated to result in approximately R1.5 billion in direct tax losses annually.

Consequently, direct tax revenue from the sector could increase from approximately R58 billion currently to an estimated R59.5 billion if the demand currently captured by illicit food were redirected to compliant operators.

The majority of this loss – approximately R1.3 billion (84.1%) – arises from foregone VAT, customs duties and other taxes on products.

Unlike sectors where border evasion accounts for almost all of the tax loss, the food sector's illicit trade profile combines import misdeclaration with domestic informal and unregulated domestic supply channels – both of which erode the formal tax base through different mechanisms.



The 84% VAT/duties share reflects the significant import component of illicit food activity, while the remaining 16% captures PIT and activity tax losses associated with displaced domestic formal production and distribution.

Personal income tax losses are estimated at approximately R162 million, while activity-related taxes account for a further R77 million – both higher in absolute terms than most other sectors in this study, reflecting the food sector's large direct employment base and extensive formal value chain.

The fiscal growth argument for enforcement

The estimated R1.5 billion annual tax loss represents revenue that could potentially be recovered through improved customs enforcement, importer compliance, risk-based inspections and measures targeting under-invoicing, mislabelling and smuggling of food products at both formal ports and land borders.

Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance and enforcement within existing customs and food regulatory frameworks – including strengthened SARS risk profiling of food imports, improved land-border monitoring and more effective coordination between customs, the Department of Agriculture and food safety authorities.

Contribution To South Africa’s GDP (2024) and the Economic Impact of Illicit Food Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit food trade using a three-step approach.

South Africa's food sector has a significant domestic manufacturing and processing base, meaning illicit trade displaces value added not only at the import stage but also across domestic processing, manufacturing, wholesale, retail and distribution – without generating the associated formal-sector economic contribution. Where illicit goods compete directly with domestically produced food products, the impact is more severe, suppressing factory output, reducing investment in food safety compliance and quality assurance, and contributing to the erosion of formal food manufacturing capacity.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the food sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R26 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R5.2 billion, the estimate equates to approximately R13.7 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit food trade is estimated at R4.2 billion annually, comprising two components:

- Direct GVA displaced: R2.9 billion – derived by applying the sector's GVA-to-output ratio of approximately 21% (SUT-derived) to the displaced production output of R13.7 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products: R1.3 billion** – comprising VAT, customs duties and other taxes on products associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA.

Key methodological notes

The R26 billion working estimate represents the upper-bound market-displacement scenario and should be interpreted as the maximum plausible estimate of expenditure diverted through illicit food channels. Impacts under the base-case estimate would be proportionally lower.

The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.

In the food sector in particular, **a portion of displaced demand may shift to other informal rather than formal supply channels.**

The broader economy-wide impacts are likely to be materially larger once upstream agricultural supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- **South Africa's food sector has an extensive domestic value chain** spanning agricultural inputs, processing, manufacturing, packaging, cold-chain logistics, wholesale and retail. Illicit food trade displaces formal activity across this entire chain – without generating the associated tax, employment and investment contributions of compliant businesses.
- **Where illicit goods compete directly with domestically manufactured food products, the impact is more severe**. In these cases, illicit trade suppresses factory output, reduces investment incentives, places pressure on employment and contributes to the erosion of domestic food manufacturing and processing capacity.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R119.1bn
2	Illicit market estimate	R26.0bn
	Less: trade and transport margins	–R5.2bn
	= Displaced formal production output (at basic prices) *	R13.7bn
	× Sector GVA/output ratio (SUT-derived)	~21%
3a	= Direct GVA displaced by illicit trade	R2.9bn
3b	+ Foregone taxes on products due to displaced activity	R1.3bn
3c	= Direct GDP impact of illicit trade	R4.2bn
COUNTERFACTUAL	Direct Food GVA if illicit trade were eliminated	R122bn

* After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R13.7 billion in displaced formal sector production output.

Counterfactual = estimated direct food sector GVA if illicit food trade were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current

R119.1bn

1.8% of total SA GVA

Direct GVA displaced

R2.9bn

annually through illicit food trade

Direct GDP impact of illicit trade

R4.2bn†

Direct GVA displaced (R2.9bn) *plus* foregone taxes on products due to displaced activity (R1.3bn)†

GVA if illicit trade were eliminated

R122bn

Formal-sector production output displaced

R13.7bn

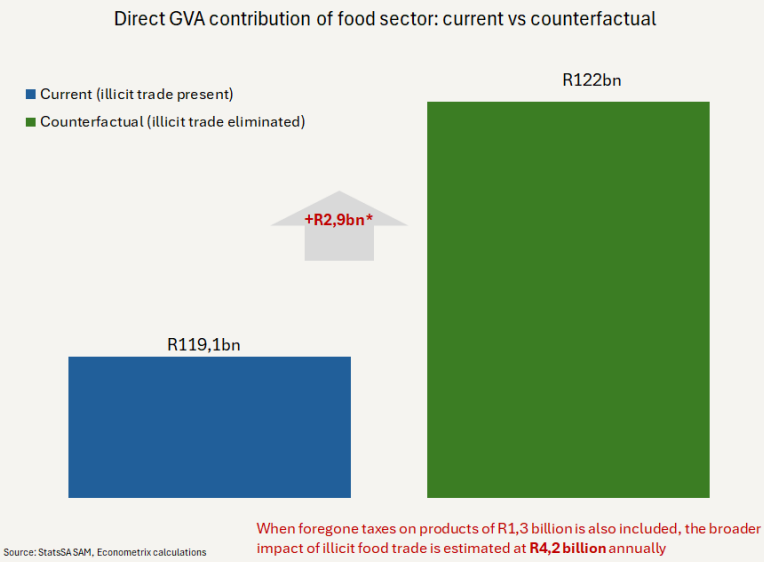
annually by illicit food trade (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include VAT and duties. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R26 billion of food consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying businesses.

Under the working estimate, this is estimated to displace approximately R13.7 billion in formal-sector production output, R2.9 billion in direct sector GVA and R4.2 billion in total GDP impact annually.



As a result, the measured economic contribution of the food sector is suppressed, with official GVA estimates reflecting current market conditions rather than the sector's potential contribution in the absence of illicit trade.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Reducing illicit food trade would strengthen one of South Africa's largest manufacturing value chains by redirecting demand towards compliant producers, processors, distributors and retailers. This would support higher levels of formal production, increase capacity utilisation across domestic food manufacturing, and improve incentives for investment in processing facilities, product innovation, food safety systems and supply-chain expansion.

Given the sector's extensive linkages with agriculture, packaging, transport, logistics, wholesale and retail, stronger enforcement has the potential to generate benefits that extend well beyond the food manufacturing sector itself.

By recovering economic activity currently diverted to illicit channels, improved enforcement could support higher GDP, employment and tax revenue while strengthening the long-term competitiveness, resilience and food security contribution of South Africa's formal food industry.

Contribution To SA's Employment and the Impact of Illicit Food Trade

The food sector is one of South Africa's largest employers in the manufacturing economy, supporting employment across agricultural procurement, food processing, manufacturing, packaging, logistics, wholesale distribution and retail.

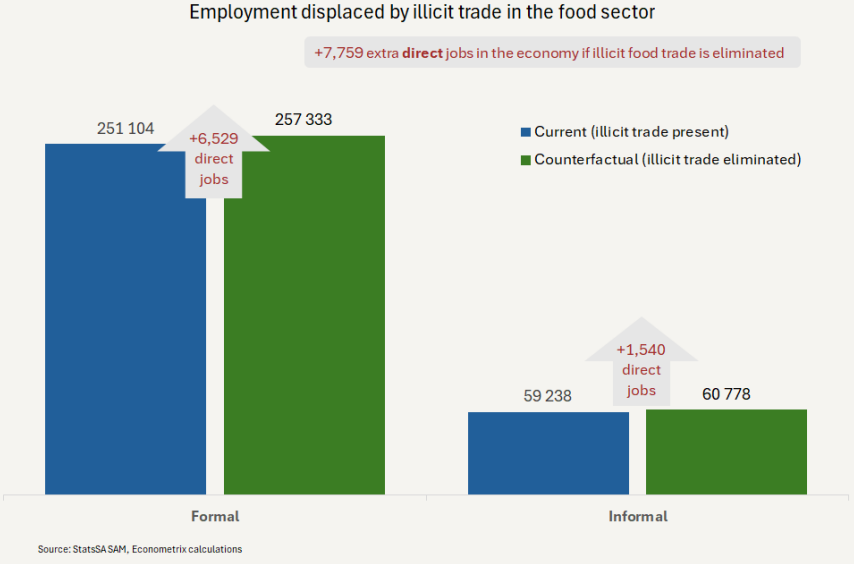
- Formal employment is concentrated among **semi-skilled workers**, who account for approximately **50.2%** of direct formal employment. **Unskilled workers account for a further 38.7%**, meaning that the employment impacts of illicit trade fall disproportionately on workers with limited alternative formal employment opportunities.
- The sector also exhibits a meaningful degree of informality, with **59,238 informal workers** accounting for approximately **19.1%** of total direct employment. This reflects the food sector's importance as a source of livelihoods across both formal and informal value chains, particularly in agricultural production, distribution and small-scale retail.
- While illicit trade affects both formal and informal participants, sustained pressure on compliant businesses ultimately constrains the sector's capacity to create, sustain and expand formal employment across one of South Africa's most labour-intensive industries.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Semi-skilled formal job share
310,342 jobs Formal: 251,104 (80.9%) Informal: 59,238 (19.1%)	**7,759 jobs** Formal: 6,529 Informal: 1,230	**318,101** *(formal and informal)*	**50.2%** Displacement falls disproportionately on semi-skilled workers, with a further 38.7% affecting unskilled formal workers.

The employment suppression effect

The food sector employs approximately 310,342 people currently.

Applying the estimated **sector-specific direct GVA displacement ratio of 2.5%**[23] to current employment levels suggests that approximately **7,759 direct jobs** are displaced by illicit food trade.



Total direct-sector employment could potentially reach approximately 318,101 formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant businesses.

[23] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

Taking indirect and induced effects across agriculture, suppliers, logistics, wholesale, retail and other linked industries into account, **the food value chain currently supports approximately 1,527,029 formal and informal jobs** economy-wide.

These jobs represent employment that could potentially be supported across the food value chain–including processing, manufacturing, logistics, wholesale distribution and retail–if illicit trade were reduced and displaced demand recovered by compliant operators.

The employment argument for enforcement

The employment impact of illicit food trade extends beyond lost sales. By diverting demand away from compliant manufacturers, processors, wholesalers and retailers, illicit trade reduces incentives for investment, capacity expansion and workforce growth across one of South Africa's most employment-intensive manufacturing sectors.

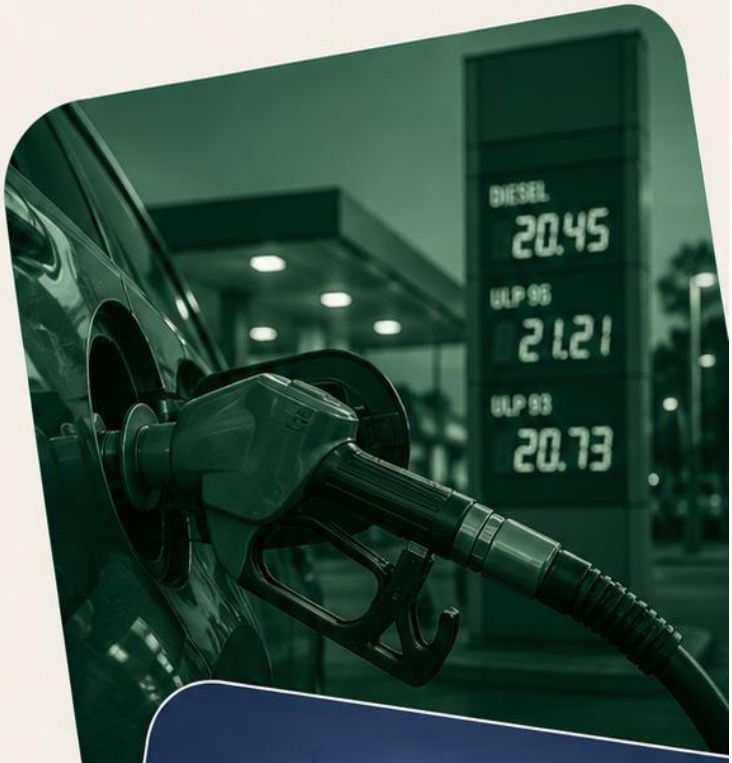
Given the sector's high concentration of low-skilled workers – and the food value chain's role in supporting livelihoods from farm gate through to retail – reducing illicit food trade could help support employment retention and strengthen formal employment creation across the full agricultural and food manufacturing value chain.

SECTOR CHAPTER

08

Fuel

Sector synopsis and economic impact assessment









ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

PREPARED FOR

Consumer Goods Council of South Africa (CGCSA)

PREPARED BY

econometrix

Smart data. Smart decisions.

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R116.2bn
Average annual household fuel consumption (SARB household petroleum average)

61,497
Direct employment (formal+informal); 80.5% formal employment

R24.2bn
Direct sector GVA contribution; ~0.4% of SA GVA

R6.03/l
Diesel-paraffin tax differential
The structural profit engine driving adulteration

⚠ **Sector-defining characteristic:** Unlike the other sectors examined in this study, illicit fuel activity operates **within** the licensed formal supply chain rather than alongside it. Adulterated and fraudulently imported fuel moves through the same pipelines, depots, tanker fleets and service stations as legitimate product. Consumer complicity is typically absent, as illicit fuel reaches end users through normal purchases at licensed forecourts. This makes the fuels sector unique among those analysed: the primary economic losses fall on compliant businesses and the fiscus, while consumers often unknowingly purchase adulterated fuel through legitimate retail channels.

PRIMARY FORMS OF ILLICIT TRADE

1. **Diesel adulteration — illegal blending of duty-free paraffin into diesel** — Highest

   R6.03/litre tax differential · Paraffin sales doubled to 1.4 million m³ by 2023 · Fuel samples containing up to 68% paraffin detected · R3.6–4.2bn annual fiscal loss · Operates within licensed depots and distribution networks.

1. **Import fraud & under-declaration at border posts** — High

   Under-declared fuel imports, customs misdeclaration and falsified documentation.

3. **Cross-border fuel smuggling — Maputo Corridor** — High

   Cross-border price differentials exploited; trade misinvoicing primary mechanism; regional enforcement coordination limited.

KEY DEMAND DRIVERS

- **Price:** up to R3.02/litre discount; 2025–26 fuel price escalation has sharpened the differential.
- **Invisibility:** chemically undetectable without laboratory testing; sold through normal branded forecourts.
- **Fleet & industrial:** R2–3/litre saving at scale is a material cost reduction regardless of provenance.

KEY SUPPLY ENABLERS — TIER 1

- **R6.03/litre tax differential:** every litre of paraffin blended generates up to R6.03 in illicit margin.
- **Marker removal:** chemical "washing" of Authentix A1 neutralises the primary detection mechanism; mobile washing units have been seized.
- **No tax alignment:** National Treasury has not implemented the principal structural solution despite repeated, costed industry proposals.

ILLICIT SUPPLY CHAIN — OPERATES WITHIN LICENSED FORMAL INFRASTRUCTURE

1	2	3	4	5	6
Import / Refinery	**Border Entry ★**	**Marker Wash ★★**	**Depot Blending ★★**	**Road Tanker**	**Licensed Forecourts**
Crude import · Natref, Engen, Astron, Sapref	Lebombo · Beitbridge · Durban · CT Ports	Paraffin sourced legally / A1 marker removed	Washed paraffin blended at licensed depots	Normal licensed tanker fleet distribution	Normal retail fuel sales
	Volume under-declaration	**Critical illicit node**	**Up to 68% paraffin detected**		70+ stations found selling adulterated diesel (2023)

★ Border entry = primary SARS intervention point for import fraud. · ★★ Marker washing and depot blending = highest-value disruption points for adulteration. Once inside the formal value chain, illicit fuel is physically indistinguishable from legitimate supply.

ILLICIT MARKET PENETRATION — FUEL TRADE (WORKING ESTIMATE)

5–7%
of diesel consumption by volume

~R15.3bn
Estimated illicit market value
Primary analytical estimate adopted for economic impact modelling

The adopted central estimate is anchored in the paraffin sales volume anomaly (5.0–6.7% of diesel consumption by volume), which provides a direct measure of adulteration independent of indirect inference methods. The estimate is independently corroborated by convergent FIASA (R4.2bn) and SARS/ITAC (R3.6bn) fiscal-loss estimates derived from independent methodological approaches. Mirror trade analysis (1.6–2.0%) provides a conservative lower-bound estimate of the measurable import-fraud component.

FISCAL DISPLACEMENT — ILLICIT FUEL TRADE

CURRENT SECTOR TAX BASE

R89bn

Annual government revenue from fuels sector

Sales taxes R85.9bn (96.4%) · PIT R1.5bn · Activity R1.7bn

ANNUAL TAX LOSS — ADULTERATION

R4.4bn

Direct fiscal cost of diesel adulteration annually

TAX LOSS COMPOSITION

96.6% from evaded fuel levies, RAF levies, customs and excise duties and VAT.

Not included: import fraud fiscal loss (~R13bn annually) — reported separately as a distinct illicit flow.

POTENTIAL IF DEMAND REDIRECTED

R93.4bn

Potential tax revenue if illicit fuel demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT FUEL TRADE

R24.2bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R9.2bn

Formal-sector production output displaced annually

At basic prices

R1.2bn

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R5.4bn

Direct GDP impact annually

GVA R1.2bn + taxes R4.2bn

R25.4bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT – ILLICIT FUEL TRADE

61,497

direct jobs

Formal: 49,477 (80.5%) · Informal: 12,020 (19.5%)

3,013

jobs displaced

Formal: 2,424 · Informal: 589

86.5%

semi-skilled formal share

Displacement falls predominantly on skilled and semi-skilled formal workers

64,510

jobs – potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were redirected towards compliant fuel distributors and retailers



GVA = gross value added; measures the sector's direct economic contribution before production taxes.
GDP impact = GVA plus foregone production taxes. ·
Employment displacement applies a 4.9% illicit trade displacement rate to current direct employment levels. ·
Tax loss figures relate to adulteration only; import fraud (~R13bn) is a separate illicit flow. · Broader multiplier effects are not included to avoid double-counting. ·

OVERVIEW OF THE ILLICIT FUELS MARKET IN SOUTH AFRICA

Global context. Illicit trade in petroleum and fuel products is one of the most financially significant forms of illicit commerce globally, estimated at approximately US$133 billion annually – equivalent to 5–7% of all crude oil and refined fuels produced worldwide. The sector spans a wide spectrum of criminal activity, from pipeline theft and cargo hijacking to fuel adulteration, smuggling and tax fraud, and is present across every major region. Africa alone accounts for nearly US$100 billion of this illicit trade annually.

The illicit fuel economy is highly extractive in nature, diverting substantial tax revenue and economic value away from the formal economy, while imposing high downstream costs on compliant businesses, consumers and public finances. The petroleum sector is structurally exposed to illicit activity due to the combination of high-value products, complex and fragmented supply chains, significant price differentials between jurisdictions, and the close interaction between public- and private-sector actors – conditions that create substantial and persistent opportunities for organised criminal exploitation.

Beyond the direct financial losses to governments and industry, illicit fuel trade funds terrorist organisations and criminal networks, degrades infrastructure, causes severe environmental harm, and deprives citizens in the most vulnerable economies of access to affordable energy.

Structural vulnerabilities and the adulteration model. A defining feature of illicit trade in the fuels sector is the exploitation of tax differentials embedded within the legitimate supply chain itself. The most prevalent form in South Africa is diesel adulteration – the blending of duty-free illuminating paraffin into taxable diesel fuel. Unlike petrol, retail diesel prices are unregulated in South Africa, allowing illicit operators to discount adulterated fuel aggressively without immediately triggering regulatory scrutiny.

Because marked paraffin carries no fuel levy, road accident fund levy, customs and excise duty, or VAT, illegal blenders can undercut the legitimate market while evading the full tax burden applicable to diesel, pocketing the full margin on every litre of paraffin blended and sold as diesel. This is not a marginal arbitrage opportunity; it is a structural profit mechanism that makes illicit blending more attractive than legitimate trading and places compliant retailers in an impossible competitive position.

FIASA further warns that the scale of illegal discounting is increasingly forcing previously compliant wholesalers and retailers either to participate in adulteration practices or exit segments of the market entirely – a dynamic that demonstrates not merely competitive harm but the systemic erosion of compliance itself.

Physical theft across the value chain. Beyond adulteration, illicit activity in South Africa's fuels sector spans the entire supply chain through direct physical theft. FIASA's security risk assessment identifies criminal exposure at every node: pipeline tapping and theft during primary transport, truck hijackings during road distribution, product theft from railcars, and armed robberies at fuel depots. Compounding this, large-scale under-declaration of import volumes at border control posts represents a separate and rapidly growing form of customs and excise fraud, with estimated losses to the fiscus from import fraud alone running to approximately R13 billion annually.

South African context. South Africa's exposure to the illicit fuel trade is amplified by a convergence of structural factors: high import dependence, unregulated retail diesel pricing, a large and accessible informal distribution network, constrained enforcement capacity, and the country's role as a regional trade and logistics hub. The Maputo Corridor – the primary trade route connecting South Africa, Eswatini and Mozambique – has become one of the most significant hotspots for illicit fuel trade in the region over the past decade, with organised criminal

networks exploiting price differentials, customs gaps and weak border enforcement across all three countries. Fiscal losses from diesel adulteration alone are estimated at approximately R3.6 billion annually, with cumulative losses since 2021 running to R13 billion – figures that reflect a market in which illicit supply has become structurally embedded rather than episodic.

Enforcement constraints. A structural weakness across all forms of illicit fuel trade is the asymmetry between the scale of the problem and the enforcement response. Criminal networks have demonstrated a sustained ability to adapt, developing methods to chemically "wash" the mandatory Authentix A1 marker out of paraffin before blending – effectively neutralising the primary detection mechanism introduced in 1999.

The illicit fuel economy is increasingly characterised by organised criminal networks operating across borders and supply chains, facilitated in some instances by corruption involving customs and law enforcement officials – a governance dimension that significantly complicates enforcement and undermines institutional integrity.

Fines of up to R1 million and ten-year prison sentences already exist in statute, yet have failed to deter the trade, pointing to an enforcement gap rather than a legislative one. Despite multiple engagements with National Treasury, the 2025 Budget Speech did not address the single structural fix most likely to eliminate the incentive for adulteration – aligning paraffin taxation with diesel – leaving the profit motive firmly intact.

Current enforcement response. Government enforcement activity has intensified, but has not yet resolved the structural problem. A mid-2025 joint operation by SARS and NATJOINTS identified 23 targets across Gauteng, Mpumalanga and KwaZulu-Natal, seizing nearly 2 million litres of contaminated diesel and detaining assets valued at over R367 million.

A separate aerial surveillance operation by Bidvest Protea Coin identified more than 100 suspected illicit fuel depots across multiple provinces. A new Public Petroleum Products Act Compliance Forum has been established with powers to conduct spot checks on service stations and depots. These are meaningful developments, but FIASA has cautioned that enforcement blitzes "must not remain isolated or ad hoc interventions" – the illicit fuel economy demands a sustained, systems-based model. The closure of the Maputo Corridor Logistics Initiative in 2019 due to a lack of funding removed the primary regional coordination mechanism; Ghana's 78% reduction in adulteration following the introduction of fuel markers illustrates what coordinated, well-resourced intervention can achieve.

Why this matters. Illicit trade in South Africa's fuels sector is not a peripheral compliance problem – it is an entrenched criminal economy operating at scale, hidden within the legitimate supply chain and reinforced by a structural policy failure that government has so far declined to correct. Revenue losses from diesel adulteration and import fraud are estimated at over R17 billion annually, at a time when fuel levies are already being increased, in part, to compensate for excise revenue lost to illicit trade – placing an additional burden on law-abiding consumers and businesses.

Legitimate operators face an impossible competitive position, with some forced to exit the market or adopt illicit practices to survive. Adulterated diesel imposes direct downstream economic costs through engine failures, equipment damage and reduced fuel efficiency, particularly in the transport, logistics and agricultural sectors. And at the broadest level, the entrenchment of organised criminal networks – including corrupt officials, sophisticated marker-removal operations and cross-border smuggling syndicates – in a strategically critical sector represents a serious and escalating threat to institutional integrity, economic stability and public trust.

STRUCTURE AND DRIVERS OF ILLICIT FUELS TRADE IN SA

Forms of illicit fuels trade in South Africa: ranked assessment

Illicit trade in fuels in South Africa spans the entire supply chain from import and refining through wholesale distribution to retail. A defining feature of the sector is that illicit fuel products – particularly adulterated diesel – are sold through the same licensed depots, forecourts and distribution networks as legitimate fuel, making channel-based enforcement extremely difficult and creating direct and sustained competitive pressure on compliant operators.

RANK	FORMS	SIGNIFICANCE	EVIDENCE AND INDICATORS
1=	**Diesel adulteration (illegal blending of duty-free illuminating paraffin into diesel)**	**Highest – co-primary channel**	The dominant form of illicit fuel trade in South Africa by fiscal impact. Marked paraffin attracts no fuel levy, RAF levy, customs and excise duty or VAT, creating a per-litre margin of up to R6.03 for illegal blenders – sufficient to discount adulterated diesel by as much as R3.02 per litre before breaking even, undercutting any compliant competitor while remaining highly profitable. Paraffin sales doubled from 0.6 million m^3 to 1.4 million m^3 between 2019 and 2023, far exceeding legitimate demand. SARS and ITAC estimate annual fiscus losses of approximately R3.6 billion; FIASA puts cumulative losses since 2021 at R13 billion. Adulterated diesel with up to 68% paraffin content has been detected. Adulteration can be introduced at any point in the logistics chain – making it nearly impossible for compliant operators to protect their supply – and under the Customs and Excise Act, possession of adulterated fuel is an offence regardless of knowledge or intent, meaning innocent transporters and retailers bear legal liability for contamination introduced elsewhere in the chain.
1=	**Import fraud and under-declaration**	**Highest – co-primary channel**	Large-scale under-declaration of import volumes at border posts, with importers declaring 40,000 litres or less while physically importing up to 60,000 litres. Documents are systematically falsified to sustain the fraud. FIASA estimates annual fiscus losses from import fraud at approximately R13 billion. Corrupt customs and law enforcement officials have been implicated. The practice is expanding rapidly and now operates at an industrial scale, with its own illicit supply and value chain.
3	**Fuel smuggling across borders**	**High**	Organised criminal networks exploit price differentials between South Africa and neighbouring states along the Maputo Corridor (South Africa, Eswatini, Mozambique). Cheaper or subsidised fuel is smuggled into higher-priced jurisdictions for resale at a profit. Trade misinvoicing – declaring incorrect volumes, values or product types – is the most common mechanism. The closure of the Maputo Corridor Logistics Initiative in 2019 has weakened regional enforcement coordination.
4	**Physical theft across the supply chain**	**Moderate to high**	Criminal exposure exists at every node: pipeline tapping during primary transport, truck hijackings during road distribution, product theft from railcars, and armed depot robberies. Pipeline theft causes direct revenue losses, infrastructure damage and environmental harm. The sector's physical infrastructure – refineries, pipelines, storage facilities, road and rail networks – provides numerous points of vulnerability.
5	**Marker removal ("washing")**	**Moderate – critical enabler**	Illicit operators use chemical or filtration processes to remove the mandatory Authentix A1 marker from paraffin before blending with diesel, neutralising the primary regulatory detection mechanism. A rare mobile washroom fitted onto a transport truck was seized during the 2025 NATJOINTS operation. Marker removal significantly undermines the effectiveness of enforcement and enables adulterated fuel to enter the mainstream supply chain undetected.
6	**Illicit LPG trade**	**Moderate**	Includes illegal importation of non-compliant cylinders and appliances, unlicensed filling operations using cylinders belonging to legitimate operators, violation of regulated LPG pricing, and illegal export of filled cylinders to the SADC region. Cylinder hijackings and depot break-ins have been recorded. Non-compliant equipment poses direct safety risks to consumers, including fatal accidents.
7	**Unlicensed and non-compliant fuel retail**	**Moderate and growing**	The rise of unlicensed depots and forecourts operating outside the Petroleum Products Act licensing framework. The Fuel Retail Association has warned of a dramatic increase in illegal operators undercutting licensed retailers. A new Public Petroleum Products Act Compliance Forum has been established specifically to address this, with powers to conduct spot checks on depots and service stations.

Note: This ranking is indicative rather than definitive, reflecting an analytical assessment based on FIASA industry evidence and NATJOINTS operational findings.

Key Illicit Consumer Behaviour and Demand-Side Drivers

Unlike most illicit consumer goods, adulterated fuel is largely invisible to end consumers – motorists, fleet operators and industrial users typically cannot detect it at the point of purchase and are often unaware they are buying an illicit product. Demand-side drivers, therefore, reflect structural conditions rather than consumer intent.

DRIVER	DESCRIPTION	IMPACT
Price and affordability pressure	Adulterated diesel is sold at a significant discount to legitimate fuel – illegal blenders can undercut compliant operators by up to R3.02 per litre before breaking even, with margins widening further as diesel prices rise. For price-sensitive buyers – including small transport operators, farmers, logistics companies and individual motorists – the price differential is a powerful draw, particularly in an environment of persistently high fuel costs and rising living expenses. The 2025–2026 diesel price escalation, driven in part by the Middle East conflict, has sharpened this dynamic considerably.	**Highest**
Inability to distinguish adulterated from legitimate fuel	Unlike counterfeit consumer goods, adulterated diesel is chemically indistinguishable to the naked eye in many cases. While heavily adulterated fuel may appear slightly different in colour or clarity, lower concentrations of paraffin are undetectable without laboratory testing. Fuel stations cannot afford to test their supply regularly, and most consumers have no means of verification at all. This means illicit fuel enters the supply chain and reaches end users through entirely normal purchasing behaviour – at licensed forecourts, through established suppliers and via mainstream distribution networks.	**Highest**
Availability through mainstream licensed channels	Adulterated fuel is not confined to informal or unverified channels – it is distributed through licensed depots and mainstream forecourts alongside legitimate product. Consumers have no channel-based signal of risk: buying fuel at a branded service station affiliated with a major oil company provides no guarantee of product integrity if the upstream supply chain has been compromised. Over 70 service stations were found selling adulterated diesel during the Department of Mineral Resources and Energy's (DMRE) compliance sampling in 2023, and Bidvest Protea Coin identified more than 100 suspected illicit depots through aerial surveillance in 2025.	**Highest**
Low perceived risk for buyers	For most purchasers, there is no perceived legal, reputational or financial risk associated with buying adulterated fuel – they are unaware that the product is illicit. Even where fuel quality concerns exist, tracing contamination back to a specific supplier is difficult, and legal liability under the Customs and Excise Act falls primarily on those in possession of the fuel rather than the end consumer. The absence of visible enforcement at the forecourt level further normalises the purchase of potentially adulterated product.	**High**
Unregulated retail diesel pricing	Unlike petrol, retail diesel prices are unregulated in South Africa, meaning filling stations can set their own pump prices. This creates a legitimate-seeming mechanism through which illicit operators can offer significant discounts without triggering automatic regulatory scrutiny. Consumers and fleet operators actively seek out cheaper diesel suppliers, particularly as prices rise – and price competition is a normal and expected feature of the retail diesel market, making discounted adulterated product difficult to identify as suspicious.	**High**
Industrial and fleet buyer volume incentives	Large-volume buyers – logistics companies, mining and agricultural enterprises, and public transport operators – face significant fuel cost pressures and are structurally incentivised to seek the lowest available price/litre. At scale, a R2–R3 per litre saving across a large fleet represents a material cost reduction, creating strong demand for discounted supply regardless of provenance. These buyers may knowingly or unknowingly source from illicit suppliers, and the scale of their purchases provides a significant and reliable revenue stream for adulteration networks.	**High**
Limited consumer awareness of downstream harms	Most fuel buyers are unaware that adulterated diesel causes engine damage, accelerates component wear, increases maintenance costs and produces higher levels of harmful emissions. The harms are not immediately visible – engine degradation from paraffin contamination is cumulative, and symptoms such as reduced power, rough idling and increased fuel consumption can be attributed to other causes. This means consumers receive limited feedback about having purchased an illicit product, reducing the market signal that would otherwise drive demand away from non-compliant suppliers.	**Moderate–High**
Limited awareness of broader fiscal and social harms	Fuel buyers are generally unaware that purchasing adulterated or smuggled fuel contributes to fiscus losses estimated at over R17 billion annually, funds organised by criminal networks operating across borders, and accelerates the exit of compliant operators from the market. As with other illicit trade categories, this does not directly drive demand but substantially reduces resistance to purchasing from lower-cost suppliers and weakens the social stigma that might otherwise deter it.	**Moderate - low**

Note: The demand-side profile of illicit fuels is distinct from most consumer illicit trade categories in that consumer complicity is typically absent – illicit fuel reaches end users through mainstream channels, often without their knowledge. Enforcement and policy responses must therefore focus primarily on the supply side and structural incentives rather than consumer behaviour.

Supply Side Enablers of Illicit Fuels Trade

Supply-side enablers are organised into three tiers. Tier 1 covers primary structural drivers across three themes: import and entry vulnerabilities, enforcement failure, and market structure. Tiers 2 and 3 are compounding factors that amplify Tier 1 conditions. Together, they create a high-return, low-risk operating environment for illicit fuel operators.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
Tax differential between paraffin and diesel – the structural profit engine. Marked illuminating paraffin attracts no fuel levy, RAF levy, customs and excise duty or VAT, while diesel carries a combined tax burden of approximately R6.03 per litre. This differential is not a loophole – it is a deliberate policy design intended to protect indigent households – but it creates a structural profit mechanism that makes illegal blending commercially irresistible. Every litre of paraffin blended into diesel and sold at the wholesale list price generates up to R6.03 in illicit margin. The differential has persisted for decades and, despite repeated industry proposals, has not been addressed through tax alignment or compensatory grant mechanisms.	**Absence of tax alignment policy – the unresolved structural fix** FIASA and industry stakeholders have repeatedly proposed aligning paraffin taxation with diesel to eliminate the blending incentive, with a compensatory SASSA grant mechanism to protect indigent households. This solution has been costed, modelled and submitted to National Treasury on multiple occasions. The 2025 Budget Speech did not address it. The failure to implement a known, costed, technically straightforward policy fix is the single most significant institutional enabler of illicit fuel trade in South Africa.
Unregulated retail diesel pricing Unlike petrol, retail diesel prices are unregulated, allowing illicit operators to offer aggressive discounts without automatically triggering regulatory scrutiny. Price competition is a normal feature of the retail diesel market, meaning heavily discounted adulterated product does not present an obvious compliance signal to buyers, enforcement agencies or regulators. This structural feature of the market actively conceals illicit activity within legitimate commercial behaviour.	**Weak and reactive enforcement framework** Enforcement relies heavily on reactive sampling programmes by the DMRE and SARS rather than systematic supply chain monitoring. Limited availability of detection equipment across the distribution network means the marker system – the primary regulatory tool – cannot be applied at scale. Enforcement actions, while increasingly joint and intelligence-driven, remain periodic rather than sustained. FIASA has explicitly cautioned that ad hoc enforcement blitzes are insufficient given the sophistication and entrenchment of illicit networks.
Marker removal technology – neutralising the detection mechanism Illicit operators have developed chemical and filtration processes to remove the mandatory Authentix A1 marker from paraffin before blending, effectively neutralising the primary regulatory detection tool introduced in 1999. The sophistication of these operations – including a mobile washroom fitted onto a transport truck, seized during the 2025 NATJOINTS operation – indicates significant capital investment and organised criminal capability. Once the marker is removed, adulterated fuel is indistinguishable from legitimate diesel without expensive laboratory testing.	**Corruption involving customs and law enforcement officials** The involvement of corrupt SARS customs officers and SAPS members in facilitating import fraud and under-declaration at border posts is documented. Corruption enables the systematic falsification of import documentation, selective enforcement failure and the protection of illicit supply chains from interdiction. Its presence within the institutions responsible for enforcement represents a fundamental governance vulnerability that cannot be addressed through operational measures alone.
Tier 2 – Structural & Systemic Drivers	
Distribution through mainstream licensed infrastructure Unlike most illicit goods, adulterated fuel moves through licensed depots, tanker fleets and forecourts that are formally part of the regulated supply chain. This eliminates the channel-based enforcement signals authorities typically rely on – illicit product is physically indistinguishable from legitimate product in the same infrastructure – and normalises illicit trade within the formal economy.	**Weak importer traceability and document fraud infrastructure** Illicit import networks use falsified customs declarations, short-lived entities and proxy-importer structures to evade repeated enforcement. The sophistication of document fraud – including systematic under-declaration of volumes across multiple border posts – suggests organised rather than opportunistic criminality, and complicates post-clearance audit and prosecution.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Whistleblower intimidation and supply chain complicity The scale of illegal discounting has forced previously compliant wholesalers and retailers to either participate in adulteration or exit the market. Those willing to report illicit activity face documented threats to life and limb. This combination of coerced complicity and intimidated silence creates a supply chain environment in which illicit activity is normalised and self-reinforcing.	**Collapse of regional enforcement coordination** The Maputo Corridor Logistics Initiative, established in 2004 to coordinate enforcement across South Africa, Eswatini and Mozambique, closed in 2019 due to a lack of funding. No equivalent regional mechanism has replaced it, leaving cross-border smuggling networks to operate without coordinated interdiction.
Tier 3 – Market-Level & External Factors	
Price volatility and demand escalation Sharp increases in diesel prices, driven by the 2025–2026 Middle East conflict, significantly widen the price differential between diesel and paraffin, increasing the profitability of adulteration and the attractiveness of discounted illicit supply to price-sensitive buyers. Price volatility creates cyclical surges in demand for illicit fuel that outpace enforcement capacity.	**Insufficient laboratory and testing capacity** Confirming adulteration requires testing for density, flash point, distillation characteristics and marker presence – analysis that is time-consuming, expensive and not available at scale across the distribution network. This constrains both detection and prosecution, and means that the true extent of adulteration is significantly underreported in official enforcement data.
South Africa's role as a regional trade and logistics hub High volumes of road, rail and port freight through South Africa increase the operational challenge of systematic inspection. The Maputo Corridor in particular handles significant cross-border fuel flows, providing organised networks with multiple entry and transit points.	**Absence of effective real-time supply chain monitoring** South Africa lacks a comprehensive real-time digital monitoring system for fuel volumes across the supply chain – from import declaration through depot storage to retail dispensing. Such a system would allow anomalies in declared versus actual volumes to be detected systematically rather than through periodic sampling. Industry has proposed enhanced slate data reporting and supply chain traceability as practical measures, but implementation has been limited.

Sources: FIASA security risk assessment and taxation proposals; SARS enforcement statements June 2025; NATJOINTS operational reports; Bidvest Protea Coin surveillance data; International Trade Administration Commission; own analysis.

The Illicit Fuels Supply Chain

Unlike most illicit trade categories, where goods enter from outside and move through informal channels to consumers, the illicit fuels supply chain is **largely internal to the legitimate industry infrastructure**. Adulterated, smuggled and fraudulently imported fuel moves through the same pipelines, depots, tanker fleets and licensed forecourts as legitimate product. This co-location within formal infrastructure is the defining structural feature of the illicit fuels market — and the primary reason conventional channel-based enforcement is insufficient. The illicit fuel economy is highly extractive in nature, diverting substantial tax revenue and economic value away from the formal economy while imposing high downstream costs on compliant businesses, consumers and the fiscus.

Three distinct illicit flows operate within and alongside the legitimate value chain.

Entry point → Primary storage → Wholesale distribution → Retail

FLOW 1 — IMPORT FRAUD & UNDER-DECLARATION

Border Entry ★ PRIMARY SARS INTERVENTION POINT

KEY ENTRY POINTS

> Lebombo · Beitbridge · Durban Port · Cape Town Port · other land border posts

Fuel is imported by road tanker or vessel with customs declarations that systematically understate volumes — declaring 40,000 litres or less while physically importing up to 60,000 litres per load. Documents are falsified to sustain the fraud. Corrupt customs and SAPS officials have been implicated in enabling the failure of selective enforcement at border posts. The practice operates at industrial scale with its own illicit supply and value chain, and estimated fiscus losses of ~R13 billion annually.

ENFORCEMENT IMPLICATION

The **highest-leverage intervention point** for import fraud. Requires systematic volume verification technology at key border posts, real-time cross-referencing of declared versus actual volumes, integrity measures targeting corrupt officials, and post-clearance audit capability. Regional coordination with Eswatini and Mozambique is essential.

Legitimate paraffin supply → Marker removal ("washing") → Illegal blending → Licensed depot → Road tanker distribution → Forecourt → Consumer

FLOW 2 — DIESEL ADULTERATION

Paraffin Sourcing OUTSIDE ENFORCEMENT RADAR

Marked illuminating paraffin is purchased legally through normal wholesale channels. Because it is duty-free and VAT-exempt, it is widely available and competitively priced. No enforcement trigger exists at this stage — the purchase is entirely legal.

MARKER REMOVAL ("WASHING") — CRITICAL ILLICIT NODE

Before blending, illicit operators remove the mandatory Authentix A1 marker from paraffin using chemical or filtration processes at dedicated washing facilities, some of which are mobile. This step neutralises the primary regulatory detection mechanism. A mobile washroom mounted on a transport truck was seized during the 2025 NATJOINTS operation, underscoring the sophistication of the infrastructure involved.

ENFORCEMENT IMPLICATION

Washing facilities are the **highest-value disruption target** in the adulteration chain. Intelligence-led identification and seizure of washing operations — including mobile units — offers greater enforcement leverage than downstream sampling alone.

ILLEGAL BLENDING & DEPOT

Illegal Blending & Depot Distribution POST-BORDER INTERVENTION POINT

Washed paraffin is blended with diesel at depot level — often within licensed storage and distribution facilities — and sold into the wholesale market at a significant discount to the legitimate wholesale list price. Blends of up to 68% paraffin content have been detected. Previously compliant wholesalers face pressure to participate or exit the market. The adulterated product moves through normal road tanker distribution networks.

ENFORCEMENT IMPLICATION

Requires depot-level inspection, random tanker sampling for viscosity and composition, and market surveillance for anomalous discounting patterns. The open sale of adulterated fuel through licensed infrastructure requires engagement with depot operators and fuel distributors as enforcement partners.

RETAIL FORECOURT

Retail Forecourt CONSUMER INTERVENTION POINT

Adulterated diesel reaches consumers through licensed service stations operating within formal retail networks, where it is sold alongside or in place of legitimate product. Over 70 service stations were found selling adulterated diesel during DMRE compliance sampling in 2023. Consumers cannot detect adulteration at the point of purchase. Engine damage, increased maintenance costs and higher emissions are downstream consequences.

Channel 1: Licensed depot network
Adulterated fuel blended and stored in formally licensed facilities alongside legitimate product

- Sector-defining risk. Illicit product indistinguishable from legitimate in the same infrastructure.

Channel 2: Road tanker distribution
Normal tanker fleet used to distribute adulterated product to forecourts

- Sampling at tanker level is a key detection point.

Channel 3: Licensed forecourt / service station
End point for consumer purchase — often unaware of adulteration

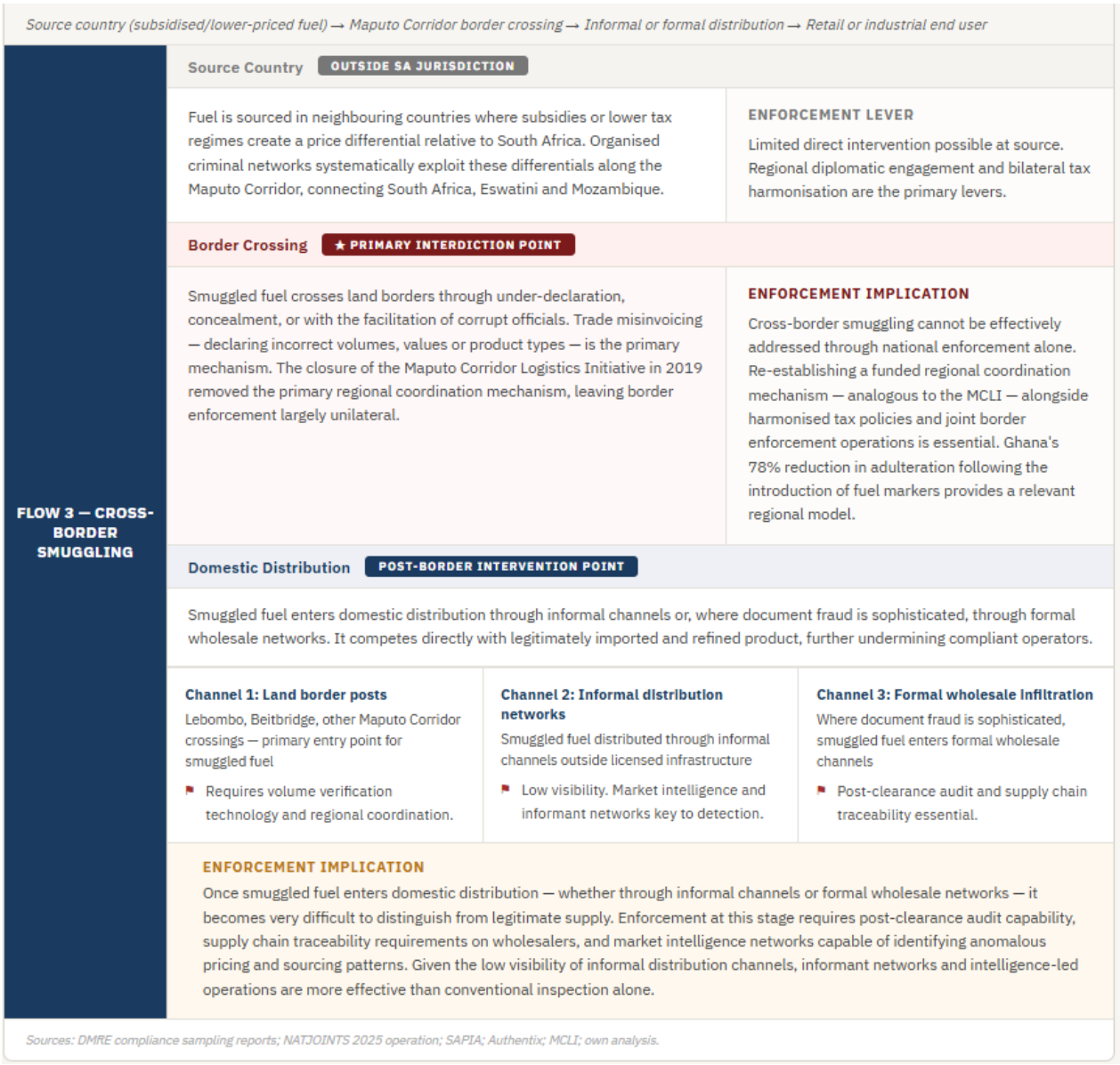
- Consumer harm point. Traceability back to supplier is difficult once product is dispensed.

Channel 4: Industrial and fleet direct supply
Large-volume buyers supplied directly from depot — agriculture, logistics, mining

- High-volume illicit revenue stream. Buyers may knowingly or unknowingly source illicit product.

ENFORCEMENT IMPLICATION

Forecourt-level sampling provides detection but not disruption — by this stage, the illicit product has already moved through the supply chain. Consumer-facing enforcement should focus on disclosure obligations, supplier traceability requirements and liability frameworks for forecourt operators.



SYNTHESIS

Unlike many illicit sectors where illegal goods move through parallel informal markets, illicit fuel activity systematically infiltrates formal infrastructure and licensed distribution networks. This significantly complicates enforcement, as illicit products become difficult to distinguish from legitimate supply once inside the formal value chain.

Effective intervention, therefore, requires a combination of border enforcement, depot-level monitoring, intelligence-led disruption of washing and blending operations, and regional coordination – rather than conventional downstream retail enforcement alone.

Sources: FIASA security risk assessment; SARS enforcement statements June 2025; NATJOINTS operational reports; Bidvest Protea Coin surveillance data; own analysis.

SCALE OF ILLICIT FUELS TRADE IN SA – PENETRATION RATE

Methodological approach

Direct measurement of illicit trade is inherently difficult because the activity is designed to evade detection. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the illicit trade penetration rate in South Africa's fuels sector using five complementary methods:

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. **Mirror trade analysis**	Import volume under-declaration across relevant HS codes for petroleum products	ITC TradeMap / UN Comtrade	Supporting a quantitative indicator of illicit market entry via import fraud. Used as a conservative lower-bound estimate, as document falsification means the true gap exceeds the mirror trade signal. Treated as corroborating evidence rather than a primary estimate.
2. **Paraffin sales volume anomaly**	Structural mismatch between reported paraffin sales and legitimate demand	FIASA / SAPIA slate data; Stats SA household consumption surveys	Paraffin sales remained stable for an extended period before rising sharply, while household consumption of paraffin declined over the same period. The gap between reported sales and estimated legitimate demand provides an independent volume-based penetration estimate that is robust to the limitations of both mirror trade and SUT analysis.
3. **Industry and regulatory estimates**	Direct sector estimates of illicit penetration by volume and fiscal impact	FIASA security risk assessment and taxation proposals; SARS/ITAC enforcement statements; DMRE compliance programme data	Primary quantitative inputs. Industry bodies estimate that a significant volume of paraffin entered the diesel market as adulterated product, representing a material share of total inland diesel consumption, with substantial associated fiscus losses. Enforcement agencies independently estimate significant annual losses from adulteration, with import fraud losses estimated separately at a higher order of magnitude. Treated as primary inputs in the triangulation.
4. **Supply-Use Table benchmark**	Non-observed consumption activity in product category P40 (petroleum oils)	Stats SA Supply-Use Tables	Use-side NOE provides a cross-check of non-observed consumption consistent with illicit distribution and tax evasion. Note: supply-side NOE is zero throughout, reflecting the capital-intensive, formally registered nature of petroleum production – this is structurally correct and not a data gap. The analytical signal in this sector sits entirely on the use side.
5. **International benchmarking**	Plausible penetration ranges observed in comparable markets	TRACIT global estimates; African Development Bank; Ghana fuel marking programme outcomes	Plausibility check and directional reference. Global illicit fuel trade is estimated at US$133bn annually; Africa at nearly US$100bn. Ghana's 78% reduction in adulteration following the introduction of fuel markers provides a policy-relevant regional benchmark.

Mirror trade analysis and the SUT benchmark are primarily used to assess illicit market entry and non-observed consumption, respectively, while industry and regulatory estimates and the paraffin sales volume anomaly provide direct, volume-grounded evidence on penetration. Together, these methods distinguish between illicit market

entry – reflected in trade and customs indicators – and domestic market penetration, reflected in the structural mismatch between reported paraffin sales and legitimate demand, and are confirmed by independent fiscal estimates from SARS, ITAC and FIASA.

The fuels sector has an important methodological characteristic that distinguishes it from most other sectors in this report: the primary illicit activity – diesel adulteration – leaves a measurable and independently verifiable trace in the form of the paraffin sales volume anomaly, visible in both SAPIA slate data and DMRE published sales figures. Unlike most illicit trade categories, this means a relatively direct volume-based penetration estimate is available that does not rely solely on indirect inference methods. The convergence between the volume anomaly method, the FIASA fiscal estimate and the independent SARS/ITAC figure strengthens confidence in the central illicit market penetration range derived from this analysis.

Mirror trade analysis is included as a supporting rather than primary method: while applicable to import fraud and under-declaration, the sophistication of document falsification in this sector means mirror trade will systematically understate the true illicit volume, and it is interpreted accordingly.

The final penetration range is derived from the convergence across all five methods and should be interpreted as a directional, evidence-based estimate of illicit fuels trade in South Africa.

The adopted central illicit market penetration estimate provides the basis for the working illicit market value used in the subsequent GDP, fiscal and employment impact analysis.

Estimating the Size of the Fuels Market

The South African Reserve Bank (SARB) household consumption expenditure series for petroleum products is used as the primary market-size denominator in this section, consistent with the approach applied to other sectors in this report. It is published in nominal terms, making it directly comparable with the nominal rand values used in the volume anomaly, fiscal loss and mirror trade analyses, and it runs to 2025, providing a more current baseline than alternative sources.

Unlike other sectors in this report, where the SARB series is used as the sole market size denominator, the fuels sector warrants the inclusion of the Stats SA Supply-Use Table (SUT) P40 household use figure as a parallel reference. This is for two reasons: the scale and consistency of the NOE use signal in the SUT – averaging 39.8% of household use over 2018–2022 – is analytically significant and deserves to be shown alongside the primary denominator rather than referenced only in the methodology section; and there is a meaningful divergence between the two series in 2022 (R130.5bn SARB versus R138.9bn SUT) that warrants transparency.

The two sources are broadly consistent and provide mutual validation of the market size denominator, with the gap reflecting methodological differences in how each series treats industry margins and price adjustments rather than a substantive measurement conflict.

A key analytical note applies to this series: household consumption of petroleum products is sensitive to fuel price movements rather than volume changes alone. The series fell from R130.7 billion in 2023 to a projected R121.7 billion in 2025 despite broadly stable consumption volumes, reflecting a decline in fuel prices rather than reduced demand.

Penetration rates expressed as a share of household consumption value should therefore be interpreted alongside volume-based estimates for robustness. The 2020 figure reflects COVID-19 lockdown suppression of fuel

consumption and is treated as an outlier – the 2021–2024 average of R123.7 billion is used as the primary denominator for the penetration rate in preference to the full-period average, which is distorted by the 2020 contraction.

Table 33: Estimated Petroleum Products Market Size - South Africa

YEAR	SARB HOUSEHOLD PETROLEUM CONSUMPTION (NOMINAL)*	YEAR-ON-YEAR GROWTH (%)	SUT P40 HOUSEHOLD USE (NOMINAL)*
2018	R110.0bn	–	R115.7bn
2019	R108.8bn	–	R115.1bn
2020	R88.3bn	-18.8	R95.5bn
2021	R103.0bn	16.7	R110.7bn
2022	R130.5bn	26.7	R138.9bn
2023	R130.7bn	0.2	–
2024	R130.6bn	-0.1	–
2025	R121.7bn	-7.1	–
Average: 2019-2025	**R116.2bn**		

Source: South African Reserve Bank; Stats SA Supply-Use Tables 2018–2022

* *The consistent R5–8bn gap between the SUT and SARB figures reflects several methodological differences. The SUT values supply and use at basic prices (excluding taxes and trade margins) before adding taxes and margins to arrive at purchasers' prices. In contrast, the SARB household consumption series is recorded at purchasers' prices directly. For petroleum products, this distinction is particularly significant given the substantial tax burden embedded in the pump price – fuel levies, RAF levy and customs and excise duties collectively add approximately R6.03 per litre – meaning that differences in how and when these are allocated across the supply-use balance can produce material differences in the household use figure even when both series are nominally expressed at purchasers' prices. Additional contributing factors include differences in the treatment of non-profit institutions serving households, the statistical residual absorbed into household use during the SUT balancing process, and differences in data vintage between the two series. These are methodological rather than substantive differences – both sources are consistent estimates of the same underlying consumption aggregate.*

Method 1: Mirror Trade Analysis[24]

Conceptual Basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate import under-recording, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains. While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative of underlying trade frictions or potential misreporting.[25]

[24] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[25] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis, therefore, compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where*

Mirror trade analysis is included in this section for methodological consistency with other sectors in this report, but its reliability and interpretive value are materially lower for petroleum products than for most other categories analysed.

This reflects several structural features of the petroleum sector that generate bilateral trade discrepancies independently of illicit activity: large bulk shipments are subject to bonded movements, transhipment and stockpiling that create timing mismatches between partner-country export recording and South African import recording; South Africa's major petroleum supply partners (Saudi Arabia, Bahrain – collectively 17% of imports) do not publish bilateral export data; and the dominant supply hubs (the UAE, Oman – collectively 38% of imports) function as re-invoicing and transit trading centres whose export records do not reflect the origin of physical flows, producing large negative gaps that are inconsistent with under-declaration detection.

More fundamentally, the core illicit activity in South Africa's petroleum sector is not primarily undeclared or undervalued importation. It is domestic in nature – diesel adulteration through paraffin blending, tax arbitrage exploiting the duty differential between paraffin and diesel, and diversion within the formal supply chain. These activities are not captured by mirror trade analysis regardless of data quality, and the strongest quantitative evidence in this section derives from the paraffin sales volume anomaly, SARS and ITAC fiscal loss estimates, and enforcement seizure data rather than from trade discrepancies.

HS code coverage

The analysis uses HS 2710 (petroleum oils and preparations, excluding crude – covering diesel, petrol, kerosene and fuel oils) as the primary code. Analysis is conducted at the 6-digit level, reflecting the reliability constraints of bilateral trade data at more disaggregated levels, as well as the product substitution dynamics inherent in the adulteration model.

India–South Africa petroleum trade corridor

Of South Africa's major petroleum import partners, only India provides sufficiently complete and consistent bilateral export data to support mirror trade analysis. India accounts for approximately 18% of South Africa's cumulative HS 2710 imports over 2019–2025, making it the largest usable corridor. Oman (19%) and the UAE (19%) – the two largest suppliers by volume – produce persistently negative gaps consistent with re-invoicing and transit hub dynamics rather than under-declaration, and are excluded from the analysis. Saudi Arabia and Bahrain (17% combined) do not publish bilateral export data.

Because only one corridor is analysable, the results represent a conservative lower-bound indicator of potential import irregularities rather than a comprehensive estimate. No extrapolation across all corridors is applied, given that the India corridor's share of total imports (18%) is insufficient to support a reliable all-corridor scaling and that the supply chain dynamics of the Gulf producer corridors are structurally different from India's refining and re-export model.

Mirror trade results

India's cumulative recorded exports to South Africa under HS 2710 exceeded South Africa's recorded imports from India by approximately $1.35 billion (R26.9 billion) over 2019–2025 – an average annual gap of approximately USD 193 million (R3.8 billion). The gap is negative in 2019–2021, near-zero in 2022, and positive and growing in 2023–

bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.

2024, suggesting the under-declaration signal strengthens in the period coinciding with escalating adulteration and price increases.

Applying a noise discount of 40–50% – at the higher end of the standard range, reflecting the greater role of legitimate trade frictions, timing mismatches and re-export routing in petroleum supply chains relative to more direct consumer goods corridors – yields an adjusted annual gap of approximately R1.9–R2.3 billion for the India corridor alone.

Table 34: India–South Africa Petroleum Trade (HS 2710): Mirror Analysis

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE (HS2710)	MARKET DENOMINATOR†	ILLICIT PENETRATION RATE
PANEL A: INDIA CORRIDOR ONLY					
India corridor only – raw	R3.8bn	None	R3.8bn	R116.2bn	3.3%
40% noise discount	R3.8bn	-40%	R2.3bn	R116.2bn	2.0%
50% noise discount	R3.8bn	-50%	R1.9bn	R116.2bn	1.6%
PANEL B: ALL CORRIDOR EXTRAPOLATION (INDIA = 18% OF TOTAL RECORDED SA HS 2710 IMPORTS)‡					
Raw gap (extrapolated)	R21.1bn	None	R21.1bn	R116.2bn	18.2%
40% noise discount	R21.1bn	-40%	R12.7bn	R116.2bn	10.9%
50% noise discount	R21.1bn	-50%	R10.6bn	R116.2bn	9.1%
60% noise discount	R21.1bn	-60%	R8.5bn	R116.2bn	7.3%

† Denominator: average SARB household petroleum products consumption 2019–2025 (R116.2bn). India corridor accounts for approximately 18% of total recorded SA HS 2710 imports.

‡ *Panel B extrapolation: India corridor average annual gap of R3.8bn divided by India's share of total recorded SA HS 2710 imports (18%, average 2019–2024), yielding an implied all-corridor gap of R21.1bn. A higher noise discount range of 40–60% is applied to Panel B compared to other sectors in this report, reflecting the structural heterogeneity of SA's petroleum import corridors – the Gulf producer corridors (Oman, UAE, Saudi Arabia, Bahrain – collectively approximately 55% of imports) exhibit negative mirror trade gaps inconsistent with the India corridor pattern, making India a less reliable proxy for all-corridor misdeclaration rates than in sectors with a single dominant, structurally homogeneous supply corridor. Panel B should be interpreted as an illustrative upper bound rather than a central estimate.*

- **Panel A** – yielding an adjusted annual gap of R1.9–R2.3 billion after a 40–50% noise discount, equivalent to an estimated illicit market penetration rate of 6–2.0% – should be interpreted as a conservative lower-bound indicator rather than a central estimate. The India corridor accounts for only 18% of recorded imports and excludes the Gulf producer corridors, which collectively account for the majority of SA's petroleum supply. Under-declaration on those corridors – where enforcement data and FIASA evidence suggest systematic volume falsification – is not reflected in this estimate.
- **Panel B** represents an illustrative upper-bound extrapolation retained for methodological consistency rather than a preferred estimate. The wide range of 7.3–18.2%, depending on noise discount applied, reflects the fundamental limitation of the India corridor as a proxy for the full import picture in petroleum, and the structural heterogeneity of SA's petroleum import corridors makes the extrapolation assumption less reliable here than in sectors with a single dominant, homogeneous supply corridor.

Accordingly, Panel A and Panel B are interpreted as lower- and upper-bound illustrative indicators, respectively, with the central illicit market penetration estimate derived primarily from the paraffin volume anomaly methodology.

Method 2: Paraffin Sales Volume Anomaly

Conceptual basis

The paraffin sales volume anomaly method estimates the volume of illicitly adulterated diesel by comparing reported illuminating paraffin sales against independently estimated legitimate demand. Unlike mirror trade analysis – which infers potential illicit activity from bilateral trade discrepancies – this method identifies a direct, measurable gap between recorded supply and plausible legitimate consumption. Because paraffin is a physically traceable product whose sales are formally recorded in the slate data system and whose legitimate end uses are independently estimable from household survey data and industry sources, the unexplained surplus represents fuel that entered the market through channels inconsistent with legitimate household or industrial consumption. Given the documented mechanics of diesel adulteration in South Africa, the overwhelmingly most plausible commercial destination for surplus paraffin at this scale is the diesel supply chain. This method is treated as the primary quantitative indicator of illicit penetration in the fuels sector, reflecting the directness and internal consistency of the evidence relative to the indirect inference methods available in most other illicit trade categories.

Estimating legitimate paraffin demand

Legitimate demand for illuminating paraffin in South Africa derives from two sources: household consumption for cooking, space heating and lighting; and industrial use as a solvent or cleaning agent.

Household demand is estimated at approximately 440,000–660,000 m^3 annually. Kimemia and Van Niekerk (2021), as cited in FIASA (2023), estimate that paraffin is the primary fuel for approximately 600,000 South African households, consuming between 2 and 3 litres per day per household – implying annual household consumption of 440,000–660,000 m^3. This estimate is corroborated by the historical stability of paraffin sales prior to 2019, which remained consistently within the 600,000–700,000 m^3 range for a decade, reflecting a stable underlying demand base.

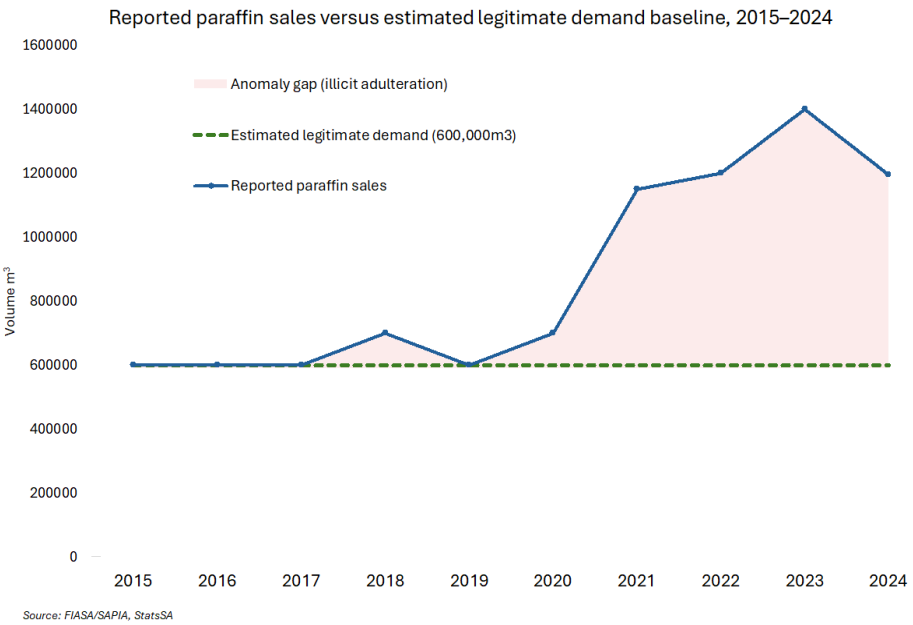
The structural decline in household paraffin use over this period is confirmed by the Stats SA General Household Survey 2025, which records that the share of households using paraffin fell to 1.9% in 2025 from 16.1% in 2002 – a collapse of more than 85% over two decades, driven by electrification and the adoption of cleaner household energy sources. This long-run decline is categorically inconsistent with the doubling of reported paraffin sales from 2019 onwards and eliminates household demand growth as a plausible explanation for the anomaly. The only period in which paraffin sales deviate materially from the declining legitimate demand trend is precisely the post-2019 period – during which illegal blending activity is independently confirmed by DMRE marker detections and SARS enforcement operations.

A further corroborating signal is provided by SASSA grant data: despite a 39% increase in grant recipients by 2023 – the population most likely to depend on paraffin as a household fuel – household paraffin consumption continued to decline over the same period. This eliminates income-driven demand recovery as an explanation for the sales surge. Industrial demand – primarily boiler fuel, solvents and cleaning agents using unmarked illuminating paraffin – is assessed as negligible. A survey of SAPIA members on sales of unmarked paraffin (which attracts full duties and levies and is used for industrial purposes) confirms that these sales are negligible, effectively eliminating industrial demand growth as a contributor to the anomaly (FIASA, Taxation Proposals, 2023).

Total legitimate demand is therefore estimated at approximately 600,000 m^3 annually – the figure used as the baseline in this analysis, consistent with the pre-2019 sales trend and independently supported by the Kimemia and Van Niekerk household consumption estimate and SAPIA industrial demand data.

Paraffin sales anomaly

Chart 1



Reported paraffin sales remained stable at approximately 600,000–700,000 m^3 annually for a decade prior to 2019. From 2021 onwards, sales increased sharply, with a clear inflexion point between 2020 and 2021 (visible in FIASA's historical sales data), reaching approximately 1,400,000 m^3 by 2023 and 1,195,000 m^3 by 2024 – approximately double the pre-surge baseline of 600,000–700,000 m^3. This surge occurred against a backdrop of:

- A structural 22-year decline in household paraffin use, falling from 16.1% of households in 2002 to 1.9% in 2025 (*Stats SA General Household Survey 2025)*.
- A 39% increase in SASSA grant recipients by 2023 without a corresponding increase in household paraffin usage, further contradicting the hypothesis that the sales surge reflects genuine demand growth among low-income households *(FIASA, 2023)*.
- Negligible industrial paraffin demand confirmed by SAPIA member survey data *(FIASA, 2023)*.
- Concurrent and independently documented escalation in illegal blending activity, confirmed by DMRE compliance programme marker detections and SARS enforcement operations from 2020 onwards.

The combination of surging recorded sales and declining legitimate demand across all measurable demand categories produces an anomaly gap that is unambiguous in both direction and scale.

Table 35: Paraffin Sales Volume Anomaly – South Africa

YEAR	REPORTED PARAFFIN SALES (m^3)	ESTIMATED LEGITIMATE DEMAND (m^3)	ANOMALY GAP (m^3)	ANOMALY AS % OF REPORTED SALES
2015	~600,000	~600,000	~0	~0%
2016	~600,000	~600,000	~0	~0%
2017	~600,000	~600,000	~0	~0%
2018	~700,000	~600,000	~100,000	~14%
2019	~600,000	~600,000	~0	~0%
2020	~700,000	~600,000	~100,000	~14%
2021	~1,150,000	~600,000	~550,000	~48%
2022	~1,200,000	~600,000	~600,000	~50%
2023	~1,400,000	~600,000	~800,000	~57%
2024	1,195,000	600,000	595,000	50%

Sources: FIASA / SAPIA slate data sales supplied by wholesalers; DMRE published paraffin sales; FIASA Diesel Adulteration presentation (Sep 2025); own calculations. 2021–2023 figures read from FIASA Fig 1 (Historical sales of IP) and described as approximate. The 2024 figure is directly published in FIASA Annexure A. The estimated legitimate demand baseline of ~600,000 m^3 is held constant for analytical simplicity, consistent with FIASA's methodology and the pre-2019 stability of reported sales. In practice, legitimate household demand is likely declining modestly over the period, given the structural fall in household paraffin use documented by the Stats SA General Household Survey 2024 (16.1% of households in 2002 to 1.9% in 2025). A declining baseline would increase the anomaly gap in later years, making the penetration estimate conservative rather than overstated.

Converting the anomaly to a diesel market penetration rate

The anomaly gap of approximately 595,000–800,000 m^3 represents paraffin sold in excess of all legitimate demand. Converted to litres, this implies approximately 595–800 million litres of paraffin entering the diesel market annually through adulteration during 2023–2024.

Against total inland diesel consumption of approximately 12,000 million litres in 2023 and 11,807 million litres in 2024 (FIASA/SAPIA), this implies an adulteration penetration rate of approximately 5.0–6.7% of diesel consumption by volume.

Applying the FIASA fiscal loss estimate of R4.2 billion against the SARB household petroleum consumption denominator of R130.6 billion (2024) indicates that the estimated tax loss is equivalent to approximately 3.2% of household petroleum expenditure.

The two measures are not directly comparable. **The volume-based estimate** measures the share of diesel consumption that is adulterated, whereas **the fiscal measure** expresses foregone tax revenue relative to total household petroleum expenditure. The fact that both indicate material economic leakage nevertheless provides **independent corroboration of the adopted central illicit market penetration range**.

Robustness and limitations

Three limitations apply.

- First, the legitimate demand baseline of 600,000 m^3 is held constant across the full period for analytical simplicity, consistent with FIASA's own methodology. Two offsetting forces act on this baseline over time: legitimate household demand is likely declining modestly, given the structural fall in paraffin use documented by the Stats SA General Household Survey, while population growth and load-shedding-driven substitution may have generated a partial offsetting increase in some years. On balance, the declining household-use trend is likely dominant, meaning that the true legitimate demand baseline in 2023–2024 is somewhat below 600,000 m^3 – closer to the lower end of the Kimemia and Van Niekerk range of 440,000–660,000 m^3. A lower baseline would increase the anomaly gap and the implied penetration rate, making the central estimate of 5.0–6.7% conservative rather than overstated. Industrial demand remains assessed as negligible based on SAPIA member survey data confirming negligible unmarked paraffin sales.
- Second, the 2021–2023 sales figures are read from FIASA's published chart (Figure 1: Historical sales of IP) rather than from a tabular data source, introducing some imprecision in the precise annual values. The 2020 figure is estimated from the trend trajectory. The 2024 figure of 1,195,000 m^3 is directly published in FIASA's Annexure A and anchors the penetration estimate. Given that the penetration rate calculation uses the 2023–2024 range as its primary basis, the imprecision in intermediate years does not materially affect the central estimate.
- Third, a small proportion of the anomaly gap may reflect paraffin exported informally to neighbouring countries rather than adulterated domestically – though given the scale of the gap and the operational evidence from SARS seizures confirming blending at depot level, this is unlikely to materially affect the estimate.

Each of these limitations is assessed as conservative in direction – they would, if anything, cause this method to understate rather than overstate the anomaly. The volume anomaly estimate of 5**.0–6.7% illicit market penetration by diesel volume** is therefore treated as the study's central estimate and the primary input into the penetration-rate triangulation.

Method 3: Industry, Regulatory and Fiscal Estimates

Conceptual basis

Industry and regulatory estimates provide direct, source-based quantification of illicit penetration derived from fiscal loss modelling, enforcement operations and compliance programme data. Unlike the volume anomaly method – which derives a penetration estimate from the gap between recorded sales and legitimate demand – this method draws on independently produced estimates from three separate institutional sources: FIASA, SARS and ITAC. The convergence of these estimates across different methodological paths and institutional vantage points is treated as the primary corroborating signal in the triangulation.

This method is particularly valuable in the fuels sector because the institutional sources are unusually specific and quantified relative to most illicit trade categories. FIASA's estimates are grounded in slate data analysis and fiscal loss modelling; SARS and ITAC estimates derive from enforcement operations, compliance sampling and customs data; and DMRE compliance programme data provides a product-level detection signal. Together, they constitute a multi-source institutional consensus on the scale of illicit fuel trade.

➔ Source 1: FIASA fiscal loss estimates

The Fuels Industry Association of South Africa estimates that approximately 0.7 million m^3 of paraffin entered the South African diesel market as an adulterant in 2023 – equivalent to 700 million litres. Against total inland diesel consumption of 11,807 million litres in 2024 (FIASA/SAPIA) – used here as the closest available annual reference – this implies an adulteration penetration rate of approximately 5.9% by volume, consistent with the volume anomaly method's central estimate of 5.0–6.7%.

FIASA estimates associated fiscus losses from adulteration at R4.2 billion in 2023 alone, with cumulative adulteration-related losses since 2021 of R13 billion. These estimates are derived from the tax differential between paraffin and diesel – approximately R6.03 per litre in evaded duties and levies per litre of paraffin blended – applied to the estimated volume of illicit blending.

The methodology is transparent and internally consistent: it does not require inference from trade data or household surveys but follows directly from the known tax structure and the estimated blending volume. Expressed against the SARB household petroleum expenditure denominator of R130.6 billion (2024), the **estimated fiscal loss is equivalent to approximately 3.2% of household petroleum expenditure** by value.

➔ Source 2: SARS and ITAC estimates

The South African Revenue Service and the International Trade Administration Commission independently estimate the annual fiscus cost of fuel adulteration at approximately R3.6 billion – derived from enforcement operations, customs compliance data and DMRE sampling results rather than from industry fiscal modelling.

This figure is cited in SARS's June 2025 enforcement statement and represents an institutionally grounded, operationally derived estimate that is methodologically independent of the FIASA figure.

Expressed against the same denominator, this implies the estimated fiscal loss is equivalent to approximately 2.8% of household petroleum expenditure by value. The R600 million gap between the FIASA estimate (R4.2bn) and the SARS/ITAC estimate (R3.6bn) is analytically unremarkable – it reflects different methodological bases (fiscal modelling versus enforcement-derived data) and different reference periods rather than a substantive conflict. Both figures point to the same order of magnitude and bracket a central estimate of approximately R3.6–4.2 billion in annual adulteration-related fiscus losses.

➔ Source 3: Import fraud estimates

FIASA separately estimates fiscus losses from import under-declaration at approximately R13 billion annually – a figure derived from analysis and extrapolation of border post fuel truck movements and entirely distinct from the R13 billion in cumulative adulteration losses cited in Source 1 above, which coincidentally share the same nominal value but represent different illicit flows measured over different time horizons. Import fraud represents undeclared or under-declared volumes at the border rather than domestic adulteration, and is not included in the adulteration penetration rate calculations above.

Noted here as a separate fiscal loss dimension, import fraud combined with adulteration implies total illicit fuel-related fiscus losses of approximately R16.6–17.2 billion annually. Because import fraud operates at the import and wholesale level rather than at the household consumption level, total supply at purchasers' prices is the more appropriate denominator for a calculation combining both illicit flows.

Applied against SUT's total supply of R644.5 billion (2022), combined adulteration and import fraud losses of R16.6–17.2 billion imply total fiscal losses equivalent to approximately 2.6–2.7% of total petroleum supply at purchasers' prices.

Table 36: Summary of Method 3 estimates

SOURCE	ESTIMATE TYPE	ANNUAL FISCAL LOSS	FISCAL LOSS RATIO	DENOMINATOR
FIASA (2023)	Adulteration fiscal loss	R4.2bn	3.2%	SARB household petroleum R130.6bn
SARS / ITAC (2025)	Adulteration fiscal loss	R3.6bn	2.8%	SARB household petroleum R130.6bn
FIASA (2024)	Import fraud fiscal loss	R13.0bn	Separate illicit flow – not included in adulteration rate	–
Combined adulteration + import fraud	Total fiscal loss	R16.6–17.2bn	2.6–2.7%	SUT total supply R644.5bn

DMRE compliance programme detections

The DMRE compliance programme provides a qualitative corroborating signal through product-level detection data. Sampling of diesel under the programme has confirmed the presence of the Authentix A1 paraffin marker in numerous cases, with adulteration levels of up to 68% paraffin content detected in individual samples during the 2025 NATJOINTS enforcement operation. While the compliance programme does not produce a statistically representative market-wide detection rate – sampling is risk-based rather than random – the breadth and consistency of detections across Gauteng, Mpumalanga and KwaZulu-Natal is consistent with a market in which adulteration is widespread and not confined to isolated operators. No quantitative penetration rate is derived from this source; it is retained as a qualitative directional signal consistent with the fiscal loss estimates above.

Interpretation

The three institutional sources converge on a consistent adulteration-related fiscal loss range of R3.6–4.2 billion annually, equivalent to fiscal losses of approximately 2.8–3.2% of household petroleum expenditure.

This range is derived from methodologically independent sources – fiscal modelling, enforcement operations and compliance sampling. This is corroborated by the independently derived illicit market penetration estimate of 5.0–6.7% of diesel consumption by volume. The consistency across methods and sources is treated as the primary basis for the central penetration range derived in the triangulation section that follows.

Method 4: Supply-Use Table Benchmark

Conceptual basis

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

The relevant SUT product code is P40 – Petroleum oils, oils from bituminous minerals, kerosene, gas oils, fuel oils and related products – which maps directly onto the petroleum products sector without requiring sub-category allocation. Unlike most product categories in this report, no scope adjustment is needed: P40 covers the fuels market and nothing else.

The SUT is included here for methodological consistency with other sectors in this report and as a structural cross-check on the volume anomaly and fiscal loss estimates. It is not used as a direct penetration rate input in the triangulation.

Supply-Use Table findings

Table 37: Stats SA Supply-Use Table – P40, Petroleum Oils, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R539.1bn	R547.5bn	R519.5bn	R630.7bn	R644.5bn	R576.2bn
Total industry (intermediate) use	R386.5bn	R399.8bn	R397.4bn	R493.0bn	R451.6bn	R425.7bn
Exports	R38.4bn	R44.5bn	R31.6bn	R31.6bn	R35.6bn	R36.3bn
Household consumption	R115.7bn	R115.1bn	R95.5bn	R110.7bn	R138.9bn	R115.2bn
Non-observed use	R48.3bn	R47.5bn	R39.1bn	R46.4bn	R46.3bn	**R45.5bn**
Non-observed supply	R0	R0	R0	R0	R0	**R0**
NOE use/household use	42%	41%	41%	42%	33%	39.8%
NOE supply/household use	0%	0%	0%	0%	0%	0%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations.

Two features of the P40 SUT are analytically significant for this analysis.

- First, the non-observed supply is zero throughout the full five-year period. This is structurally correct – petroleum products cannot be produced informally, given the capital intensity of refining and primary distribution infrastructure – and confirms that all petroleum products enter the domestic economy through formally registered supply channels.

  This zero supply-side NOE eliminates informal domestic production as a contributor to illicit fuel activity and means that non-observed consumption cannot be explained by supply-side invisibility. It directly supports the analytical framework in this report: illicit fuel activity in South Africa is a problem of diversion and fraud within the formal supply chain, not a parallel informal economy operating outside it.

- Second, non-observed use averages R45.5 billion annually – equivalent to 39.8% of household petroleum consumption – and is remarkably stable at 41–42% across four consecutive years before falling to 33% in 2022.

The consistency of this signal across five years is inconsistent with normal measurement error and points to a persistent structural feature of non-observed petroleum consumption in the South African economy.

Interpreting the NOE use signal

The NOE use signal of 39.8% should not be interpreted as a penetration rate and should not be used as a direct input in the triangulation. The figure reflects total non-observed petroleum consumption recorded in the national accounts – a broad category that encompasses not only illicit adulteration and import fraud but also legitimate informal consumption patterns, timing differences in SUT recording and statistical residuals in the balancing process.

Interpreting it directly as an illicit market penetration rate would yield an estimate an order of magnitude larger than the central illicit market penetration range derived from the volume anomaly and institutional estimates, and would therefore be methodologically inappropriate.

The analytical value of the NOE use signal is structural rather than quantitative: it confirms that non-observed petroleum consumption is a persistent and material feature of the South African economy at a scale consistent with the documented illicit activity. It is not inconsistent with the adopted central illicit market penetration estimate of 5.0–6.7% of diesel consumption by volume - the two figures measure different things.

The NOE use figure captures the gross value of all non-observed consumption across the entire petroleum products category, including industry use; the central penetration estimate captures the specific share of diesel consumption attributable to illicit adulteration at the retail and end-user level. These are complementary rather than competing measures.

The SUT benchmark is therefore treated as a structural directional signal – confirming the persistent presence of non-observed petroleum consumption at material scale – rather than as a quantitative estimate of illicit market penetration.

The zero supply-side NOE and the persistent use-side signal together confirm that illicit petroleum activity in South Africa is a diversion problem within the formal supply chain – a finding that is directly consistent with and reinforces the analytical framework established in Methods 2 and 3.

Penetration Rate Matrix: Triangulated outcome

The methods applied in this analysis produce a range that is narrower and more internally consistent than most other sectors in this report, reflecting the unusual availability of direct, institutionally sourced volume and fiscal loss data for the fuels sector. The paraffin sales volume anomaly and the FIASA and SARS/ITAC fiscal loss estimates are derived from independent methodological paths and converge closely, providing a stronger triangulation base than is typically available in illicit trade analysis.

- The **mirror trade analysis** (India corridor, HS 2710) provides a conservative import-channel lower bound of 1.6–2.0% on a single-corridor basis (Panel A, 40–50% noise discount), rising to 7.3–10.9% on an all-corridor extrapolated basis (Panel B, 40–60% noise discount).

  Panel A is treated as a floor given that India accounts for only 18% of recorded imports and the Gulf producer corridors – which account for the majority of SA's petroleum supply – cannot be analysed due to data constraints. Panel B is retained as an illustrative upper-bound extrapolation but is not used as a primary estimate given the structural heterogeneity of SA's petroleum import corridors and the limited reliability of India as a proxy for all-corridor misdeclaration rates.

- The **paraffin sales volume anomaly** provides the primary quantitative estimate.

  Reported paraffin sales doubled from approximately 0.6 million m^3 annually – stable for a decade – to 1.4 million m^3 by 2023 and 1.195 million m^3 by 2024, while **household paraffin use fell** from 16.1% of households in 2002 to 1.9% in 2025, and industrial demand is confirmed as negligible. The anomaly gap of 595,000–800,000 m^3 implies an adulteration penetration rate of 5.0–6.7% of total diesel consumption by volume. This is the primary quantitative input in the triangulation.

- The **industry and regulatory estimates** from FIASA, SARS and ITAC converge on an adulteration-related fiscal loss range of R3.6–4.2 billion annually, equivalent to annual fiscal losses equal to approximately 2.8–3.2% of household petroleum expenditure. These estimates are methodologically independent – FIASA uses fiscal loss modelling, SARS/ITAC use enforcement and compliance data – and their convergence across different institutional vantage points materially strengthens confidence in the central illicit market penetration range derived from this analysis.

  Combined adulteration and import fraud losses are estimated at R16.6–17.2 billion annually, equivalent to approximately 2.6–2.7% of total petroleum supply by value.

- The **SUT benchmark** confirms that non-observed petroleum consumption is a persistent structural feature of the South African economy, averaging R45.5 billion annually over 2018–2022 against zero non-observed supply throughout. This signal is not interpreted as a penetration rate but as a structural directional indicator consistent with the scale of illicit activity documented by the volume anomaly and fiscal loss methods.

- The **international benchmarking** reference places global illicit fuel trade at approximately US$133 billion annually – equivalent to 5–7% of global production (TRACIT) – with Africa alone accounting for nearly US$100 billion annually (African Development Bank). Ghana's 78% reduction in adulteration following the introduction of fuel markers at diesel-equivalent tax rates provides the most directly applicable regional policy benchmark.

South Africa's estimated central range of 5–7% by diesel volume is consistent with the global average, noting that South Africa's structural conditions – a large tax differential between paraffin and diesel, unregulated retail diesel pricing and a sophisticated organised criminal infrastructure – place it at the higher end of the plausible range for a middle-income economy.

Triangulation estimate. The methods converge on a coherent analytical picture. The paraffin volume anomaly (5.0–6.7% of diesel consumption by volume) provides the primary estimate of illicit market penetration, while the convergent FIASA and SARS/ITAC **fiscal loss estimates** (equivalent to approximately 2.8–3.2% of household petroleum expenditure) provide independent institutional corroboration.

The mirror trade India corridor estimate (1.6–2.0%) represents the measurable import-channel floor within a larger total illicit market, while the all-corridor extrapolation (7.3–10.9%) provides an illustrative upper bound. The central estimate of **5–7% of diesel consumption by volume** is anchored in the paraffin volume anomaly and corroborated by three independent institutional sources, implying **annual fiscal losses of approximately R3.6–4.2 billion**.

For the purposes of the economic impact assessment, the central penetration estimate is converted into an estimated illicit volume of approximately **595–800 million litres** of adulterated diesel. Valued at the average formal retail diesel pump price for 2023–2024 (approximately **R21.85 per litre**), the midpoint volume of approximately **700 million litres** corresponds to an estimated illicit market value of approximately **R15.3 billion** at formal market-equivalent prices.

This working estimate forms the basis of the GDP, employment and broader economic impact modelling presented in the following section. It should be distinguished from the estimated **R3.6–4.2 billion** annual fiscal loss, which reflects only the taxes foregone by government rather than the full market value of the displaced fuel.

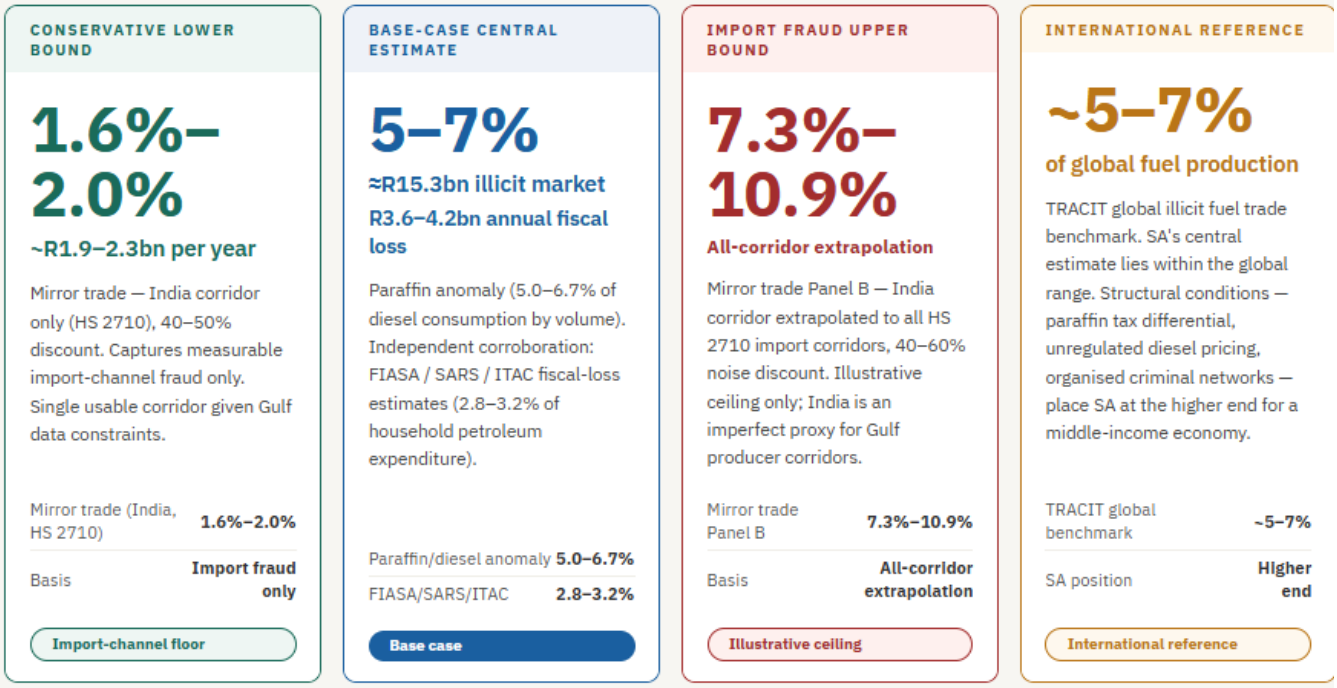


Table 38: Triangulated assessment of Illicit Fuels Trade – South Africa (Summary)

METHOD	RAW ESTIMATE	ADJUSTMENT	WORKING ESTIMATE	REFERENCE BASE	INTERPRETATION
PANEL A – INDIA CORRIDOR ONLY (HS 2710) **Conservative import channel floor**					
Mirror trade – raw gap	R3.8bn	–	R3.8bn	R116.2bn†	3.3% import-channel market penetration
40% noise discount	R3.8bn	−40%	R2.3bn	R116.2bn	2.0% import-channel market penetration
50% noise discount	R3.8bn	−50%	R1.9bn	R116.2bn	1.6% import-channel market penetration
PANEL B – ALL CORRIDORS EXTRAPOLATED (INDIA= 18% OF HS2710 IMPORTS) Illustrative upper-bound mirror trade					
Raw gap extrapolated	R21.1bn	–	R21.1bn	R116.2bn	18.2% illustrative market penetration
40% noise discount	R21.1bn	−40%	R12.7bn	R116.2bn	10.9% illustrative market penetration
50% noise discount	R21.1bn	−50%	R10.6bn	R116.2bn	9.1% illustrative market penetration
60% noise discount	R21.1bn	−60%	R8.5bn	R116.2bn	7.3% illustrative market penetration
PANEL C – PARAFFIN SALES VOLUME ANOMALY Primary quantitative estimate					
Anomaly gap 2023	~800,000 m^3	–	~800 m litres	~12,000 m litres diesel	6.7% diesel volume penetration
Anomaly gap 2024	595,000 m^3	–	595 m litres	11,807 m litres diesel	5.0% diesel volume penetration
Central range	595,000–800,000 m^3	–	595–800 m litres	11,807–12,000 m litres diesel	5.0–6.7% diesel volume penetration
PANEL D – INDUSTRY AND REGULATORY ESTIMATES **Primary fiscal corroboration**					
FIASA adulteration fiscal loss	–	–	R4.2bn	R130.6bn‡	3.2% fiscal loss ratio
SARS/ITAC adulteration fiscal loss	–	–	R3.6bn	R130.6bn	2.8% fiscal loss ratio
Combined adulteration + import fraud	–	–	R16.6–17.2bn	R644.5bn§	2.6–2.7% total fiscal loss ratio
PANEL E – SUT BENCHMARK (P40) **Structural directional indicator**					
P40 NOE use	R45.5bn	n/a	Not a penetration rate	R115.2bn	39.8% non-observed use (structural indicator)
PANEL F – INTERNATIONAL REFERENCE **Contextual reference only**					
Global illicit fuel trade	–	–	US$133bn	Global production	~5–7% of global benchmark
Ghana post-marker reduction	–	–	78% reduction	–	Policy benchmark
SCENARIOS					
Conservative scenario – **mirror trade Panel A floor**	–	–	R1.9–2.3bn	R116.2bn	1.6–2.0% import-channel market penetration
Base-case central estimate ★	–	–	R3.6–4.2bn annual fiscal loss ≈ R15.3bn, illicit market value	R130.6bn household petroleum expenditure	5.0–6.7% diesel volume penetration (primary estimate), corroborated by a 2.8–3.2% fiscal loss ratio
Upper-bound scenario – **mirror trade Panel B**	–	–	R8.5–12.7bn	R116.2bn	7.3–10.9% illustrative market penetration

★ *The adopted central estimate is anchored in the paraffin sales volume anomaly, indicating illicit market penetration of approximately 5.0–6.7% of diesel consumption by volume. The FIASA and SARS/ITAC estimates provide independent corroboration through annual fiscal losses equivalent to approximately 2.8–3.2% of household petroleum expenditure. These measures capture different dimensions of the same phenomenon: the former estimates the share of diesel consumption displaced by adulteration, while the latter expresses the associated tax losses relative to household petroleum expenditure.*

† *Average SARB household petroleum products consumption 2019–2025 (R116.2bn).*

‡ *SARB household petroleum products consumption 2024 (R130.6bn). Used for fiscal loss penetration rates where adulteration impacts household consumption directly.*

§ *SUT total supply at purchasers' prices 2022 (R644.5bn). Used for combined adulteration and import fraud total fiscal loss calculation, which operates across the full supply chain rather than at household consumption level.*

Source: FIASA security risk assessment and taxation proposals (2023–2024); SARS enforcement statements and ITAC data (June 2025); DMRE compliance programme; Stats SA Supply-Use Tables 2018–2022; SARB national accounts; ITC TradeMap / UN Comtrade; TRACIT; African Development Bank; own calculations.

The Fuel Industry's Value Chain

The South African liquid fuels industry spans a well-developed and capital-intensive value chain from crude oil importation through to retail dispensing, regulated under the Petroleum Products Act and the Customs and Excise Act.

- → Upstream, the sector relies on crude oil imports (South Africa has no meaningful domestic crude production and is almost entirely import-dependent), coastal storage infrastructure, refinery operations (Natref, Engen, Astron Energy and Sapref – though refinery capacity has contracted significantly following the closure of several facilities), and pipeline primary transport infrastructure operated primarily by Transnet Pipelines. White product imports – refined petroleum products imported directly – supplement domestic refinery output and have grown in significance as refinery capacity has declined. The upstream stage is capital-intensive, formally registered and concentrated among a small number of large operators, making it structurally resistant to informal or illicit entry at the production level.

- → Midstream, refined products move from coastal refineries and import terminals through the primary pipeline network to inland bulk storage depots, supplemented by rail and road primary transport. Depot storage and secondary distribution – from bulk depots to commercial users and retail forecourts – involves a significantly larger and more fragmented set of operators, including licensed wholesalers, independent distributors and road tanker fleets. It is at this midstream stage – particularly at licensed storage depots and during road tanker distribution – that the primary illicit activity of diesel adulteration is concentrated.

- → Downstream, fuel reaches end users through licensed service stations (approximately 4,600 nationally), commercial and industrial direct-supply arrangements (mining, agriculture, logistics, manufacturing), and informal distribution channels.

The sectors benefiting most directly from industry procurement include crude oil trading and shipping, refinery inputs and maintenance, pipeline and logistics infrastructure, road transport, depot storage, and retail property.

> The value chain is under sustained pressure from illicit trade operating within it rather than alongside it. Unlike in sectors where illicit trade primarily displaces legitimate imports or domestic production through cheaper alternatives entering through separate channels, in fuels, the primary illicit mechanism – diesel adulteration – occurs within the licensed supply chain. Previously compliant wholesalers and retailers face direct competitive pressure from adulterated product sold at a discount by operators who bear none of the tax obligations, forcing some to participate in illicit practices or exit the market.
>
> The fiscal, competitive and consumer harm therefore falls simultaneously on compliant operators, end-user industries and the public revenue base. The concentration of illicit activity in the midstream distribution stage – rather than at the border or in informal retail – means that enforcement interventions focused on port-level interception or informal market surveillance are structurally misaligned with the primary risk. The highest-leverage intervention points are depot-level inspection, tanker sampling, marker-washing facility disruption and the structural policy fix of paraffin tax alignment – not conventional downstream retail enforcement.

Economic Impact of Illicit Fuel Trade

Introduction

The illicit fuels trade imposes high economic costs on South Africa's formal petroleum distribution and retail sector. The base-case adulteration fiscal loss of R4.2 billion per year represents the most directly measurable cost – but it does not capture the full economic consequence of illicit activity in the sector, nor does displaced expenditure translate directly into an equivalent loss of GDP. Beyond displacing sales, illicit trade weakens the competitiveness of compliant fuel distributors and retailers, erodes pricing integrity, discourages investment in legitimate infrastructure, and undermines the regulatory frameworks governing fuel quality and safety. Over time, sustained illicit competition can contribute to the erosion of compliant operator margins, withdrawal from the market by legitimate participants, and the entrenchment of criminal supply networks within the distribution chain.

The economic impact of the illicit fuels trade operates through several interconnected channels:

- **Foregone tax revenue** – fuel levies, RAF levies, customs and excise duties and VAT associated with illicit market activity are lost to the fiscus, representing the most directly quantifiable cost;
- **Displaced wholesale and retail activity** – compliant wholesalers and licensed retailers lose volume to operators who undercut market prices by evading tax obligations;
- **Direct engine damage and maintenance costs** – end-users purchasing adulterated diesel incur elevated maintenance and repair costs, reducing productivity across agriculture, logistics, mining, manufacturing and transport;
- **Suppressed investment and market development** – persistent illicit competition weakens incentives for infrastructure investment and market development by compliant operators;
- **Escalating consumer prices** – fuel levy increases implemented to compensate for lost excise revenue pass costs on to all consumers, compounding the economic burden; and
- **Organised crime and governance costs** – illicit fuels trade is linked to broader criminal networks, generating second-order governance and security costs that fall outside the formal fiscal measurement framework.

The economic costs are not limited to current market displacement. The structural policy failure to align paraffin and diesel taxation means the economic incentive for adulteration remains intact. Costs are likely to persist and escalate as diesel prices rise, and the price differential widens.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using the base-case illicit market estimates established in the penetration rate analysis. Broader structural impacts on investment, long-term competitiveness, consumer health and environmental outcomes are discussed qualitatively but are not directly quantified.

Methodological note

This section focuses on the direct economic, employment and fiscal impacts of illicit fuels trade and does not include broader economy-wide multiplier effects in the central estimates. While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household and business spending, and lower formal sector activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors. The direct-impact approach provides a conservative and transparent estimate of the economic costs associated with illicit trade. As a result, the impacts presented in this section should be interpreted as a conservative estimate of the direct economic costs of illicit fuels trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Automotive Fuel Trade

The fuels sector is an exceptional contributor to South Africa's tax base. Sales taxes – comprising fuel levies, the RAF levy, customs and excise duties, and VAT – account for approximately 96.4% of all government revenue generated by the sector, making automotive fuel **one of the most tax-intensive product categories** in the economy.

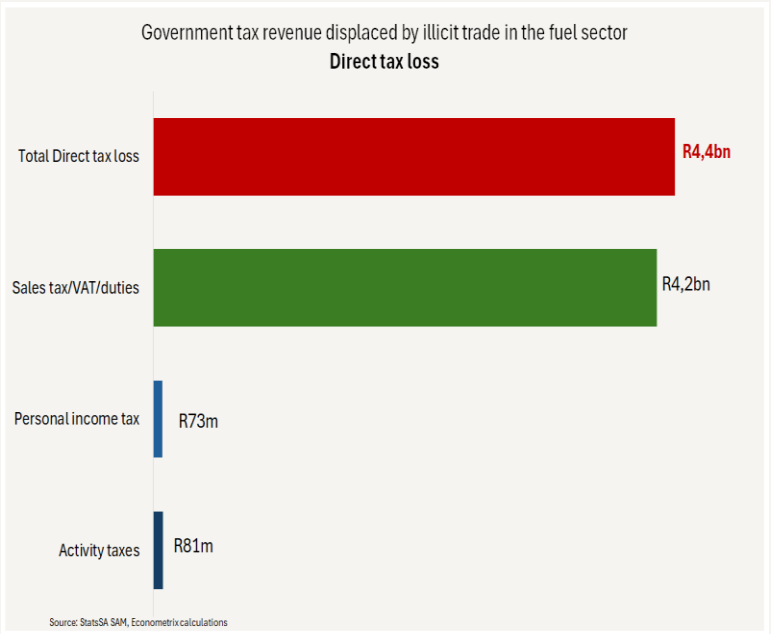
The sector generates approximately R85.9 billion in sales taxes annually, alongside R1.7 billion in activity taxes and R1.5 billion in personal income tax, reflecting both the scale of fuel consumption and the significant levy burden embedded in retail fuel prices. Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.



The fiscal suppression effect

Based on the estimated size of the illicit market, fuel-related illicit trade is estimated to result in approximately R4.4 billion in direct tax losses annually. The overwhelming majority of this loss - approximately R4.2 billion (96.6%) - arises from **evaded fuel levies, RAF levies, customs and excise duties and VAT**.

Consequently, direct tax revenue from the fuel sector **could increase from approximately R89.0 billion currently to around R93.4 billion** if the demand currently captured by illicit fuel were redirected to compliant operators.



This is consistent with the findings of the penetration rate analysis, which indicate that illicit fuel trade is predominantly driven by domestic adulteration – the substitution of lower-taxed paraffin into the diesel supply chain – which directly suppresses levy collection at the point of distribution. Because fuel levies and the RAF levy are specific charges applied per litre of qualifying fuel, **every litre of untaxed paraffin introduced into the diesel market represents a direct and calculable loss to the fiscus.**

Activity tax losses are estimated at approximately R81 million, while personal income tax losses account for a further R73 million, reflecting the displacement of formal sector economic activity and associated employment into illicit supply channels.

Import fraud is estimated to generate a further R13 billion in annual fiscal losses across the broader petroleum value chain through customs misdeclaration, misclassification and undervaluation of imports. These losses are separate from, and additional to, the adulteration-related losses presented above.

The fiscal argument for enforcement

The estimated R4.4 billion in annual adulteration-related tax losses represents revenue that could potentially be recovered through improved monitoring of paraffin distribution channels, stricter fuel quality testing at distribution points, and risk-based customs enforcement targeting petroleum import declarations. The R13 billion in import fraud losses represents a further recovery opportunity through improved border controls and importer compliance measures. **The most significant structural lever, however, is the alignment of paraffin and diesel taxation.** The primary economic incentive for adulteration arises from the substantial tax differential between diesel and illuminating paraffin.

Closing or narrowing that differential would reduce the economic incentive for adulteration at source, without requiring ongoing enforcement expenditure to suppress a market that current policy effectively subsidises. Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance and structural tax alignment within existing frameworks.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Fuel Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit fuel trade using a three-step approach.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the fuels sector is derived from the 2022 Statistics SA Supply-Use Tables, updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R15.3 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R1.8 billion, the estimate equates to approximately R9.2 billion in displaced formal-sector production output at basic prices.

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit fuels trade is estimated at R5.4 billion annually, comprising two components:

- **Direct GVA displaced**: R1.2 billion – derived by applying the sector's GVA-to-output ratio of 12.8% (SUT-derived) to the displaced production output of R9.2 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products**: R4.2 billion – comprising fuel levies, RAF levies, customs and excise duties, and VAT associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from sector GVA.

Together, these components imply a direct GDP suppression effect of approximately R5.4 billion per year, reflecting both the loss of value added generated by the formal fuels sector and the associated taxes on products that would otherwise accrue to the fiscus.

Key methodological notes

- The **R15.3 billion illicit market estimate** represents the study's working estimate expressed at formal market-equivalent prices and should be interpreted as the maximum plausible economic cost of illicit fuels trade. Impacts under the base-case estimate would be proportionally lower.
- The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.
- The figures above relate to adulteration only. Import fraud is estimated to generate an additional R13 billion in fiscal losses across the broader petroleum supply chain; the associated GDP displacement has not been separately quantified here.

- The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- Unlike most consumer goods sectors, the fuels value chain is concentrated in import, distribution and retail rather than domestic manufacturing. Illicit fuels trade therefore displaces formal-sector economic activity primarily across wholesale distribution, logistics, transport and retail – without generating the associated formal-sector GVA, employment or tax contributions.
- The adulteration mechanism operates within the domestic distribution chain, meaning the economic displacement occurs at the point of blending and onward sale rather than at the border. This makes the GDP impact more diffuse than in import-driven illicit trade, as the suppression of formal activity is spread across multiple points in the supply chain rather than concentrated at a single entry point.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	**Formal sector direct GVA baseline (current, illicit trade present)**	**R24.2bn**
2	Illicit market estimate (formal-equivalent prices, upper bound)	R15.3bn
	Less: trade and transport margins	–R1.8bn
	= Displaced formal production output (at basic prices) *	**R9.2bn**
	× Sector GVA/output ratio (SUT-derived)	12.8%
3a	**= Direct GVA displaced by illicit trade**	**R1.2bn**
3b	**+ Foregone taxes on products due to displaced activity**	**R4.2bn**
3c	**= Direct GDP impact of illicit trade**	**R5.4bn**
Counterfactual	**Direct Fuel GVA if illicit trade were eliminated**	**R25.4bn**

** After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R9.2 billion in displaced formal-sector production output.*

Counterfactual = estimated direct fuel sector GVA if illicit fuel trade were eliminated and displaced consumption shifted to the formal sector.

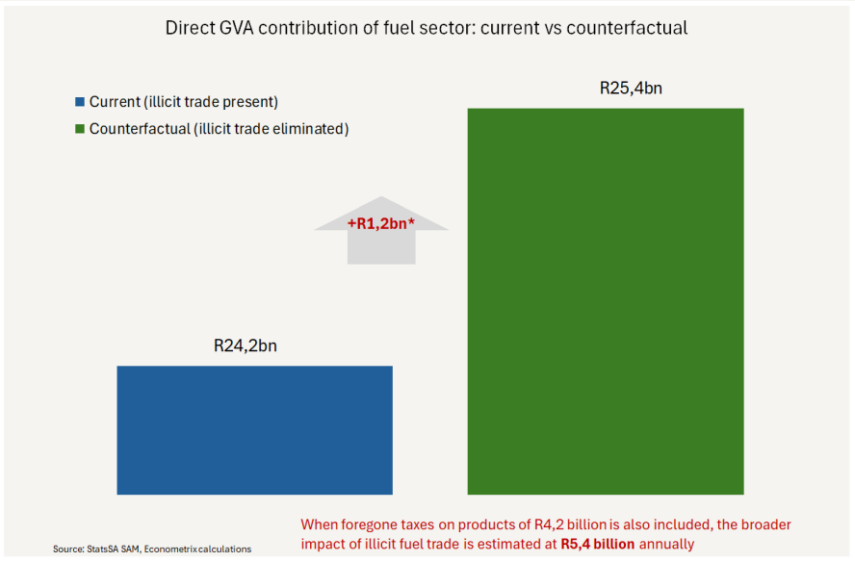
Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R24.2bn	**R1.2bn**	**R5.4bn†**	**R25.4bn**	**R9.2bn**
0.4% of total SA GVA	annually through illicit fuel trade	Direct GVA displaced (R1.2bn) *plus* foregone taxes on products due to displaced activity (R4.2bn)†		annually by illicit fuel trade (at basic prices)

†GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include fuel levies, RAF levies, customs and excise duties, and VAT. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R15.3 billion of fuel consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying distributors and retailers.

Under the working estimate, this is estimated to displace approximately R9.2 billion in formal-sector production output, R1.2 billion in direct sector GVA and R5.4 billion in total GDP impact annually.



As a result, the measured economic contribution of the fuels sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Because illicit fuel trade primarily occurs through adulteration and other forms of non-compliance within the domestic distribution chain, the economic benefits of improved enforcement accrue largely through strengthening South Africa's formal fuel distribution network rather than expanding domestic manufacturing.

Activity currently diverted through illicit blending and distribution could potentially translate into additional formal-sector value added, investment and employment across fuel storage, wholesale distribution, transport, logistics and retail if captured by compliant operators.

Strengthening fuel quality monitoring, supply-chain traceability, risk-based inspections and enforcement against adulteration and other forms of fuel fraud therefore has the potential to support economic growth while reinforcing fair competition, protecting compliant businesses and safeguarding the integrity of South Africa's fuel distribution system.

Contribution To SA's Employment and the Impact of Illicit Fuels Trade

The fuels sector provides direct employment across a nationwide network of service stations, fuel depots, wholesale distributors, transport operators and logistics providers, supporting economic activity in both urban and rural communities.

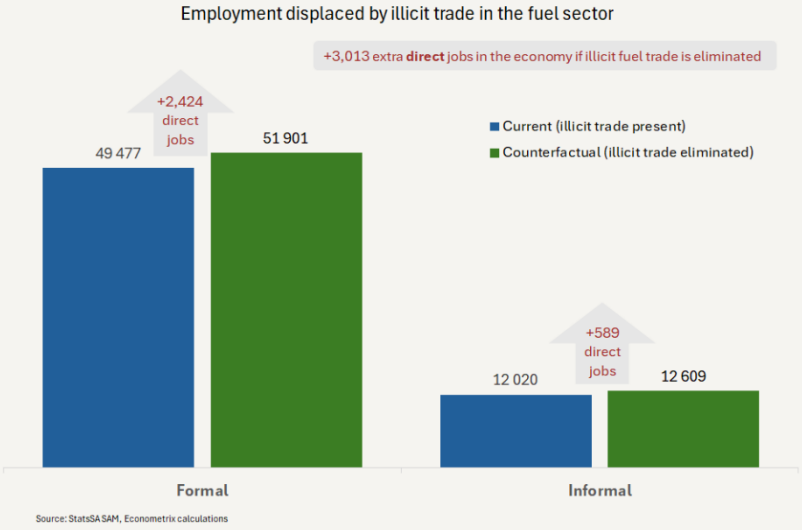
- The sector's workforce is concentrated in skilled and semi-skilled occupations, reflecting the technical, safety and operational requirements of fuel storage, transport and retail. Skilled workers account for approximately **9.3%** of formal employment, while **46.1%** are semi-skilled. Unskilled workers account for approximately **4.0%** of formal employment.
- The sector exhibits a relatively low degree of informality compared with most other sectors in this study, with informal workers accounting for approximately **19.5%** (12,020) of total direct employment. This reflects the highly regulated, infrastructure-intensive nature of fuel distribution and retail operations.
- While illicit trade affects both formal and informal participants, sustained pressure on compliant operators ultimately constrains investment, operational expansion and formal employment growth. Given the sector's occupational profile, employment displacement falls predominantly on skilled and semi-skilled workers, distinguishing the fuels sector from more labour-intensive industries where the greatest burden falls on unskilled workers.

Direct employment – current	Direct jobs displaced by illicit trade (estimate)	**Potential direct employment** *if illicit demand shifted to compliant businesses*	Semi-skilled formal job share
61,497 jobs	**3,013 jobs**	**64,510**	**86.5%**
Formal: 49,477 (80.5%) Informal: 12,020 (19.5%)	Formal: 2,424 Informal: 589	*(formal and informal)*	Displacement falls predominantly on skilled and semi-skilled formal workers.

The employment suppression effect

Applying the sector-specific direct GVA displacement ratio of **4.9%**[26] to current direct employment levels suggests that approximately **3,013 direct formal and informal jobs** are displaced by illicit fuel trade, comprising around 2,424 formal jobs and 589 informal jobs.

Of the estimated 2,424 displaced *formal* jobs, approximately 1,132 are skilled or semi-skilled positions, representing the loss of relatively high-productivity, higher-income employment from the formal economy.



Total direct-sector employment could potentially reach approximately **64,493 direct formal and informal jobs** if demand currently captured by illicit channels were redirected towards compliant fuel distributors and retailers. These jobs represent employment that could potentially be supported across the fuel value chain, including fuel distribution, wholesale, logistics, storage and retail service stations.

[26] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

The broader employment impact would extend well beyond the sector itself. The **fuel sector currently supports approximately 76,270 formal jobs across the South African economy** through upstream and downstream value-chain linkages, indicating that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

The employment argument for enforcement

The employment impact of illicit trade extends beyond lost sales. By diverting demand away from compliant wholesalers, distributors and fuel retailers, illicit trade reduces incentives for investment, business expansion and workforce growth.

The sector's concentration of skilled and semi-skilled employment means that employment losses associated with illicit trade carry a relatively higher productivity and income cost than in more unskilled-labour-intensive sectors. Reducing illicit trade helps retain employment across a distribution network that provides stable, skilled formal employment in both urban centres and rural communities, where access to comparable formal-sector opportunities would otherwise be limited.

SECTOR CHAPTER

09

Illicit Gambling Market

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R74.5bn
Licensed gambling market
(largest in Africa)

33,169
Direct employment (formal)

R27.4bn
Direct sector GVA contribution
~0.4% of SA GVA

R8.5bn
Current tax base

⚠ **Sector-defining characteristic:** Unlike most illicit markets, illegal online gambling is sustained by both enforcement challenges and a longstanding regulatory gap. Online casino and poker products have remained prohibited but widely accessible for nearly two decades, allowing more than 2,000 offshore operators to target South African consumers through digital platforms, payment channels and affiliate marketing without a regulated domestic alternative. Unlike traditional illicit trade, there is no physical supply chain, border crossing or counterfeit product to intercept, placing the primary enforcement focus on regulation, payment systems, digital platforms and offshore operators rather than customs or retail controls.

PRIMARY FORMS OF ILLICIT TRADE

Unlicensed offshore online gambling — interactive casino, poker & virtual games. 2,084 offshore operators targeting South African consumers in 2023/24; ~R72.2bn GGR (68.4% of online market); prohibited under the National Gambling Act; only 285 enforcement cases over five years. — **Highest**

Unlicensed offshore online sports betting. ~R55.1bn comparable illegal market (62.3% of the online sports betting market); mirrors licensed offerings; exploits major sporting events; offshore pseudo-licensing creates appearance of legitimacy. — **High**

Illegal land-based gambling — unlicensed premises & internet cafés. Persistent but declining as gambling shifts online; physical premises remain more readily enforceable than online operators; enforcement through NGB/SAPS and NATJOINTS operations. — **Moderate**

KEY DEMAND DRIVERS

- **Price & product advantage** — higher odds, larger bonuses, and access to prohibited products that licensed operators cannot legally offer.
- **Digital accessibility** — smartphones, internet penetration and digital payment channels eliminate most practical barriers to participation.
- **Normalisation** — embedded in SA sports culture through influencers, sponsorships and streaming platforms; 16.3 million consumers reached in 2023/24.

KEY SUPPLY ENABLERS — TIER 1

- **17-year regulatory gap** — National Gambling Amendment Act (2008) has never been brought into force, leaving online casino and poker markets without a licensed domestic alternative.
- **No website blocking** — SA lacks a legal mandate for ISP-level blocking, allowing 2,084 offshore operators to remain readily accessible to consumers.

ILLICIT GAMBLING VALUE CHAIN – DIGITAL, OFFSHORE, JURISDICTION-AGNOSTIC

1	2	3	4	5
Establishment of Offshore Platform	**Consumer Acquisition**	**Payment ★**	**Gaming Activity**	**Regulatory Gap ★★**
Offshore incorporation	Search · social media	Cards · bank transfers	Online casino · poker	No website blocking
Pseudo-licensing	Influencers · streaming	Digital wallets · vouchers	Virtual games	No payment blocking
No SA jurisdiction	Sports sponsorships	Crypto	Sports betting	**No licensed domestic alternative**
		Primary intervention point		

Payment interception (used in jurisdictions such as the UK, Norway and Denmark) represents the primary available enforcement lever. The 17-year regulatory gap remains the underlying structural driver and cannot be addressed through enforcement alone. Unlike other sectors, the principal intervention is legislative reform rather than border or supply-chain enforcement.

GVA = gross value added; measures sector's direct economic contribution before taxes. GDP impact = GVA plus foregone taxes (gambling levies) on displaced activity. · 74% = estimated formal-sector displacement ratio; not an illegal market share. Employment displacement applies a 74.0% sector-specific direct GVA displacement ratio to current direct employment levels. · Tax loss is a direct estimate; broader multiplier effects are not included to avoid double-counting. ·

WORKING ESTIMATE – ILLEGAL MARKET SCALE

62.3%
Illegal share of the online sports, casino and poker market

~R55.1bn
per year

Working estimate derived from SABA/Yield Sec primary data (2023/24). The study adopts the more conservative segment-specific estimate of R55.1 billion, representing 62.3% of the online sports, casino and poker market, for all economic, fiscal and employment modelling. This estimate is supported by direct market surveillance identifying 2,084 illegal offshore operators targeting South African consumers and approximately 16.3 million consumer interactions with illegal gambling platforms during 2023/24.

FISCAL DISPLACEMENT — ILLICIT GAMBLING TRADE

CURRENT SECTOR TAX BASE

R10.4bn

Annual government revenue from the gambling sector

Gambling taxes & levies R5.8bn (55.8%) · Activity taxes R2.7bn · PIT R1.9bn

→

ANNUAL TAX LOSS — ILLICIT TRADE

R7.7bn

Direct fiscal cost of illicit gambling trade annually

Gambling taxes & levies R4.3bn (55.8%) · Activity taxes R2.0bn · PIT R1.4bn

NATURE OF THE LOSS

55.8% of loss is gambling taxes & levies — a regulatory and licensing enforcement problem.

Consistent with the sector's large unlicensed operator base: illicit gambling avoids NGB licensing fees, levies on gross gambling revenue, and activity taxes, operating outside the formal regulatory framework entirely.

POTENTIAL IF DEMAND REDIRECTED

R18.1bn

Potential tax revenue if illicit gambling demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT GAMBLING

R27.4bn
Direct sector GVA — current
Formal sector baseline (illicit trade present)

R50.8bn
Formal-sector production output displaced annually
No trade margins — pure service displacement

R20.3bn
Direct sector GVA displaced annually

R24.6bn
Direct GDP impact annually
GVA R20.3bn + levies R4.3bn

R47.7bn
Potential GVA if illicit activity eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT GAMBLING

42,242
direct jobs
Formal: 33,169 (78.5%) · Informal: 9,073 (21.5%)

31,259
jobs displaced
Formal: 24,538 · Informal: 6,721

43.0%
unskilled job share
A further 35.9% of jobs are semi-skilled. Displacement affects mainly workers who face limited alternative formal employment opportunities

73,501
jobs — potential direct employment
Total direct-sector employment could potentially reach approximately 73,501 jobs if activity currently captured by unlicensed operators were redirected towards compliant licensed businesses

Current sector employment: 42,242 total (78.5% formal)

Formal: 33,169 (78.5%) Informal: 9,073 (21.5%)

OVERVIEW OF THE ILLICIT GAMBLING MARKET IN SOUTH AFRICA[27]

Global context

The gambling sector occupies a unique position in the illicit trade landscape – it is not primarily characterised by the production or importation of counterfeit goods, but by offshore gambling platforms that may be licensed in other jurisdictions but are not licensed to operate in South Africa.

These platforms can capture market share from compliant South African licensed operators while operating outside South Africa's domestic licensing and regulatory framework, with implications for tax compliance, regulatory oversight and consumer protection. Online betting has rendered many jurisdictions' gambling legislation – often written before the internet – increasingly difficult to enforce, as it allows operators to target consumers across borders regardless of whether they hold a licence in the jurisdiction where those consumers are located.

The Council of Europe Macolin Convention on the Manipulation of Sports Competitions provides the most widely accepted definition: illegal sports betting is any sports betting activity whose type or operator is not permitted under the applicable law of the jurisdiction where the consumer is located. By this definition, every bet placed by a South African consumer on an unlicensed foreign platform constitutes an illegal gambling transaction.

The proliferation of offshore pseudo-licensing hubs – small island territories offering licences with no tax at the point of sale, under-regulation and no legal scrutiny – has compounded the problem by providing a veneer of legitimacy to operators who are functionally illegal in every consumer jurisdiction they target. Globally, jurisdictions that have responded by legalising and regulating online gambling with competitive product offerings have demonstrated materially better channelling of consumer demand toward licensed markets than prohibition-based approaches.

The global online gambling market is estimated at over $95 billion in gross gambling revenue (GGR) – the amount operators retain after paying winnings – with illegal platforms constituting a significant and growing share *(Statista, 2024)*.

The United Nations Office on Drugs and Crime (UNODC) estimates that up to $1.7 trillion is wagered annually on illicit betting markets controlled by organised crime – a turnover figure that, given typical GGR margins of 5–10% of wagering volume, implies an illicit GGR broadly consistent with the Statista total market estimate. This makes illegal gambling one of the largest single illicit financial flows in the global economy and a primary vehicle for corruption in sport, as confirmed at the UN anti-corruption conference in Atlanta in December 2023.

Structural vulnerabilities in the value chain

The gambling sector is structurally vulnerable to illicit activity due to the inherent difficulty of enforcing territorial restrictions on digital services. Unlike physical goods – where illicit trade requires border crossings, warehousing and distribution infrastructure – unlicensed online gambling requires only a digital platform, a payment processing mechanism and internet access to reach consumers. These characteristics make illicit gambling uniquely scalable and difficult to disrupt through conventional enforcement approaches.

The sector is further exposed by the normalisation of gambling through commercial associations with sport and

[27] *Sources: National Gambling Board, National Gambling Statistics FY2024/25; National Treasury, The Case for a National Online Gambling Tax, 2025; SA3RIC/Yield Sec, South Africa 2023/24 Fiscal Year Factsheet; SA Bookmakers Association (SABA); H2 Gambling Capital, 2025; NGB Annual Report 2024/25; Parliamentary Question NW390, Minister of Trade, Industry & Competition, March 2025; Casino Enterprises(Pty)Ltd v Gauteng Gambling Board and Others 2011 (SCA); Council of Europe Macolin Convention; WHO, Gambling Fact Sheet, 2024; ICLG Gambling Laws and Regulations SA 2025*

cultural activities, heavy digital advertising, affiliate marketing and influencer promotion, and the increasing integration of betting functionality into mobile applications and social media platforms.

Illegal operators have demonstrated sophisticated exploitation of major sporting events – using search, social media and illegal streaming channels to convert mainstream sports audiences into gambling consumers, with the Africa Cup of Nations identified as a specific conversion vehicle in the 2023/24 period. As the WHO has noted, gambling is now available online and accessible almost anywhere, at any time, even in places where it is prohibited.

Regulatory framework and illicit market dynamics

Gambling in South Africa is governed by the National Gambling Act of 2004, which established the national and provincial regulatory framework but explicitly made interactive gambling unlawful pending the development of separate legislation. The National Gambling Amendment Act of 2008 would have provided a legal basis for licensing and regulating interactive gambling, but has never been brought into effect – creating a regulatory gap that has persisted for over 17 years while the online gambling market has grown exponentially. Online betting through provincially licensed bookmakers – covering outcomes of sports events, horse racing and contingency betting – is the principal form of online gambling permitted within the existing regulatory framework.

Online casino-style gambling, poker and other interactive games of chance remain outside this permitted framework. The jurisdictional challenges associated with offshore online gambling were considered by the Supreme Court of Appeal in *Casino Enterprises (Pty) Ltd v Gauteng Gambling Board and Others* (2011), involving an internet casino licensed in Swaziland but not in South Africa. The judgment confirmed that gambling activity made available to persons in South Africa is subject to South African gambling legislation, illustrating that an offshore licence does not, in itself, authorise an operator to offer gambling services in South Africa.

More recently, the *Portapa judgment* addressed the position of bookmakers in Gauteng, confirming that provincially licensed bookmakers may not offer fixed-odds betting on casino games such as roulette without the requisite casino licence. The ruling therefore provides further clarity on the distinction between permitted bookmaker activities and casino gambling within the Gauteng regulatory framework.

This legal framework has not translated into effective containment of offshore and other unlicensed gambling activity. South Africa has an exchange-control mechanism requiring authorised dealers to decline foreign-currency purchases for offshore gambling, while receiving banks are required to hand incoming winnings to the National Gambling Board (NGB). However, these mechanisms have proved insufficient to contain the scale of online gambling activity occurring outside the domestic licensing framework.

Scale of the SA gambling market

South Africa is the largest regulated gambling market in Africa, with the NGB reporting gross gambling revenue of R74.5 billion in 2024/25 and a total wagering turnover of R1.5 trillion – dominated by online sports betting, which has grown by 390% since 2020/21 and now accounts for the majority of sector GGR.

Policy developments

The regulatory gap is increasingly acknowledged at the policy level. National Treasury published its draft discussion paper on online gambling tax in November 2025, proposing a 20% GGR tax and signalling the most significant policy development in the sector since the 2008 Amendment Act lapsed. The Remote Gambling Bill (B11-2024) proposes a formal national licensing regime for online gambling. If enacted, it would fundamentally restructure the boundary between licit and illicit activity by bringing interactive gambling within a regulated framework for the first time.

The NGB launched an online operator verification portal in April 2026 in response to the proliferation of unlicensed operators, providing a mechanism for consumers, law enforcement, tax authorities and financial institutions to check the licensed status of operators. The portal's information should nevertheless be considered in conjunction with the relevant provincial licensing authorities, as newly licensed operators may not be reflected until the portal is updated.

Internationally, experience from jurisdictions that have introduced legal definitions of illegal betting combined with competitive licensed market offerings – including the UK, Australia and New Zealand – demonstrates that effective channelling of consumer demand toward licensed markets is achievable, reducing the fiscal and social costs of the illegal market while protecting consumers from unregulated platforms.

Why this matters

The illicit gambling market in South Africa is structurally distinct from every other sector covered in this report. **The illegal market is not a marginal parallel economy operating alongside a dominant legitimate sector, but a market in which unlicensed operators have captured a substantial share of consumer activity.**

This reflects the limitations of the current prohibition-based approach. While online casino and poker products remain unlawful, consumer demand has increasingly migrated to offshore platforms operating beyond the reach of domestic licensing and taxation frameworks.

The consequences – fiscal losses, consumer exposure to unregulated platforms, amplification of social harm and the competitive undermining of licensed operators – are direct and material. Addressing illicit gambling in South Africa ultimately requires regulatory reform that replaces prohibition with a licensing and taxation framework capable of capturing the digital gambling economy within the formal system, removing the structural advantage currently enjoyed by unlicensed offshore operators and redirecting consumer spending towards the domestic regulated market.

STRUCTURE AND DRIVERS OF ILLICIT GAMBLING IN SA

Forms of illicit gambling in South Africa: ranked assessment

Unlike other sectors in this report, illicit gambling operates through the same digital channels and consumer interfaces as the licensed market – making consumer differentiation and channel-based enforcement largely ineffective.

RANK	FORMS	SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Unlicensed offshore online gambling platforms (interactive casino, poker, virtual games)**	**Highest – dominant market channel**	The primary and structurally dominant form of illicit gambling in South Africa. Online casino-style gambling, poker and interactive games remain prohibited under the National Gambling Act 2004, yet SABA/Yield Sec data show that 2,084 illegal operators targeted South Africa in 2023/24, capturing an estimated R72.2 billion in GGR – 68.4% of the total online gambling market. These offshore operators provide no consumer protection, responsible gambling safeguards or local tax contribution. The Supreme Court of Appeal confirmed in 2011 that each transaction constitutes unlawful gambling activity, yet enforcement resulted in only 285 formal cases over five years against thousands of operators.
2	**Unlicensed offshore online sports betting**	**Highest – co-dominant market channel**	Sports betting through offshore operators is illegal but closely mirrors licensed sportsbook offerings, making it difficult for consumers to distinguish legal from illegal platforms. SABA/Yield Sec estimates illegal operators captured R55.1 billion (62.3%) of online sports, casino and poker GGR in 2023/24. Operators exploit major sporting events such as AFCON and the Olympics through targeted search, social media and streaming advertisements, while offshore pseudo-licensing structures create an appearance of legitimacy.
3	**Illegal land-based gambling (unlicensed premises, internet cafés)**	**Moderate - persistent physical channel**	Unlicensed land-based gambling operations, including internet cafés offering online gambling and unregistered gambling machines, remain persistent but are declining as gambling shifts online. The NGB and SAPS conduct targeted raids through NATJOINTS. Enforcement is materially more effective against physical premises than online operators because locations are identifiable and accessible to law enforcement.
4	**Payment facilitation and financial flows to illegal operators**	**Moderate – critical enabling channel**	South African banks and payment institutions facilitate transactions between consumers and offshore illegal gambling operators. Exchange control regulations require authorised dealers to block foreign currency purchases for offshore gambling and surrender incoming winnings to the NGB, but compliance and enforcement remain inconsistent. While the NGB has engaged network operators and Google Africa to block illegal sites, digital payment channels remain a key enabling mechanism.
5	**Affiliate marketing and digital promotion of illegal operators**	**Moderate - growing promotional channel**	In 2023/24, 1,134 affiliates promoted illegal gambling operators through search engine optimisation (SEO), social media advertising, influencer marketing and illegal streaming platforms. This ecosystem provides illegal operators with sophisticated consumer acquisition capabilities, particularly among younger and digitally active consumers. The growing use of AI-driven marketing and the exploitation of major sporting events have accelerated this trend. The scale and ubiquity of gambling advertising increasingly resemble historical tobacco advertising saturation prior to stricter regulatory intervention, contributing to the normalisation of gambling across mainstream digital and sporting environments.
6	**Manipulation of licensed gambling activities (match-fixing, insider abuse)**	**Lower – integrity and laundering risk**	Includes match-fixing, insider abuse and misuse of licensed gambling infrastructure for money laundering. South Africa's high sports betting volumes – R47.9 billion in online sports betting GGR in 2024/25 – create significant exposure to sports integrity risks. Unlike offshore gambling, this activity undermines the licensed gambling system from within.
7	**Unlicensed lottery and informal gambling schemes**	**Lower – informal sector activity**	Includes informal numbers games, such as Fafi, unlicensed lottery schemes and peer-to-peer gambling arrangements operating outside the regulated framework. These activities are generally informal rather than organised criminal enterprises, although proceeds may link to broader informal economy networks. Enforcement data remains limited due to their dispersed and often informal nature.

Note: This ranking is indicative rather than definitive, reflecting an analytical assessment based on research and our own analysis. The ranking reflects the scale of consumer and fiscal impact rather than the frequency of enforcement actions – a distinction that is particularly important in gambling, where enforcement actions are concentrated on more accessible land-based operations, while the highest-impact online forms remain largely unenforced.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DRIVER	DESCRIPTION	IMPACT
Price and product advantage of illegal platforms	Illegal platforms offer consumers a materially better value proposition than licensed alternatives – higher odds, more generous sign-up bonuses and higher return-to-player rates – because they avoid the taxes, compliance costs, and regulatory obligations that licensed operators must bear. For price-sensitive consumers in a high-unemployment, high cost-of-living environment, this price-and-value advantage is a primary driver of demand. **The structural cost differential between legal and illegal platforms cannot be competed away within the current regulatory framework.**	**Highest**
Broader and more attractive product offering	Licensed operators in South Africa may offer sports betting, horse racing and permitted contingency betting within the applicable provincial licensing framework. By contrast, offshore platforms offer online casino games, poker, virtual sports, live dealer games and a much wider range of betting markets. SABA/Yield Sec data indicate that online casino and poker constitute a significant share of the illegal market, suggesting that consumers actively seek products that are not available through the locally licensed market. This product gap is therefore an important structural driver of offshore gambling and cannot be addressed through enforcement alone.	**Highest**
Consumer inability to distinguish licensed from unlicensed platforms	Illegal platforms are professionally designed, credibly branded and technically indistinguishable from licensed operators – often displaying offshore pseudo-licences that appear legitimate to consumers. Unlike counterfeit physical goods, where quality differences may be detectable, illegal gambling platforms frequently offer a superior user experience to their licensed competitors. 27% of South Africans – 16.3 million people – interacted with illegal gambling platforms in 2023/24, many without awareness that they were doing so illegally.	**High**
Normalisation through sports and cultural associations	Illegal operators have embedded themselves in South African sports culture through aggressive digital advertising, social media influencer marketing, sports sponsorships and streaming partnerships. The Betway SA20 provides a prominent example, with both franchise finalists reportedly sponsored by illegal operators, resulting in their brands receiving widespread exposure across South African television and other media. Major events – including AFCON and the Olympics – have also been exploited as conversion opportunities, with illegal platforms using search, social media and illegal streaming to reach mainstream audiences at scale. The normalisation of gambling advertising across these channels reduces consumer awareness of the distinction between operators licensed in South Africa and those operating without a South African licence.	**High**
Low perceived risk and weak deterrence	Consumers face minimal perceived legal or financial risk from using illegal platforms – individual prosecution of gamblers is rare, confiscation of winnings through exchange controls is inconsistently enforced, and the NGB's public communications have had limited reach. The social normalisation of online gambling – particularly sports betting – means that using an unlicensed platform carries no meaningful social stigma. Against a backdrop of only 285 formal enforcement cases over five years, the deterrent signal to consumers is negligible.	**High**
Digital accessibility and payment convenience	Smartphones, mobile data penetration above 70% and the availability of digital payment methods – including vouchers, digital wallets and informal payment systems accessible to unbanked consumers – have eliminated practical barriers to accessing illegal platforms. Small initial deposit requirements, instant account creation and 24/7 accessibility make illegal platforms as frictionless as any licensed alternative. The growth of social media commerce and influencer referral codes has further reduced the search cost of finding illegal platforms. The evolution of online gambling has also materially changed the nature of betting behaviour itself. Modern "in-play" betting, crash games and gamified online casino products encourage rapid, repetitive wagering through real-time prompts, continuous betting opportunities and behavioural design features intended to maximise engagement. Unlike traditional betting models, these products significantly increase betting frequency and intensify problem gambling risks.	**High**
Limited consumer awareness of broader harms	Many consumers are unaware that illegal gambling platforms expose them to fraud, non-payment of winnings, addiction without recourse, money laundering risks and the absence of any consumer protection or dispute resolution mechanism. Broader social harms – foregone tax revenue, undermining of licensed operators, and links to financial crime – are poorly understood. This does not directly drive demand but substantially reduces resistance to using illegal platforms and weakens any deterrent effect that awareness of illegality might otherwise provide.	**Moderate–High**

Demand for illegal gambling is **structurally driven by product and price advantages** – illegal platforms offer products that the licensed market cannot legally provide, often at lower cost. Unlike other illicit sectors, **consumers are not simply accepting inferior substitutes** but actively seeking products that are not available through the domestic licensed market. This creates a significant challenge for enforcement, as restricting illegal supply without addressing the underlying demand may simply displace consumers towards alternative offshore platforms. **A key policy concept is therefore channelisation – creating a sufficiently attractive and competitive regulated offering that encourages consumers to shift from illegal platforms into the licensed market.** Enforcement and consumer awareness remain important, but channelisation through an appropriately designed regulatory framework is likely to be critical to reducing the structural demand for illegal online gambling.

Supply Side Enablers of Illicit Gambling

Supply-side enablers are organised into three tiers. Tier 1 covers primary structural drivers across three themes: regulatory and legal framework failures, enforcement incapacity, and digital infrastructure advantages. Tiers 2 and 3 are compounding factors that amplify Tier 1 conditions. Together, they create a high-return, low-risk operating environment for illegal gambling operators.

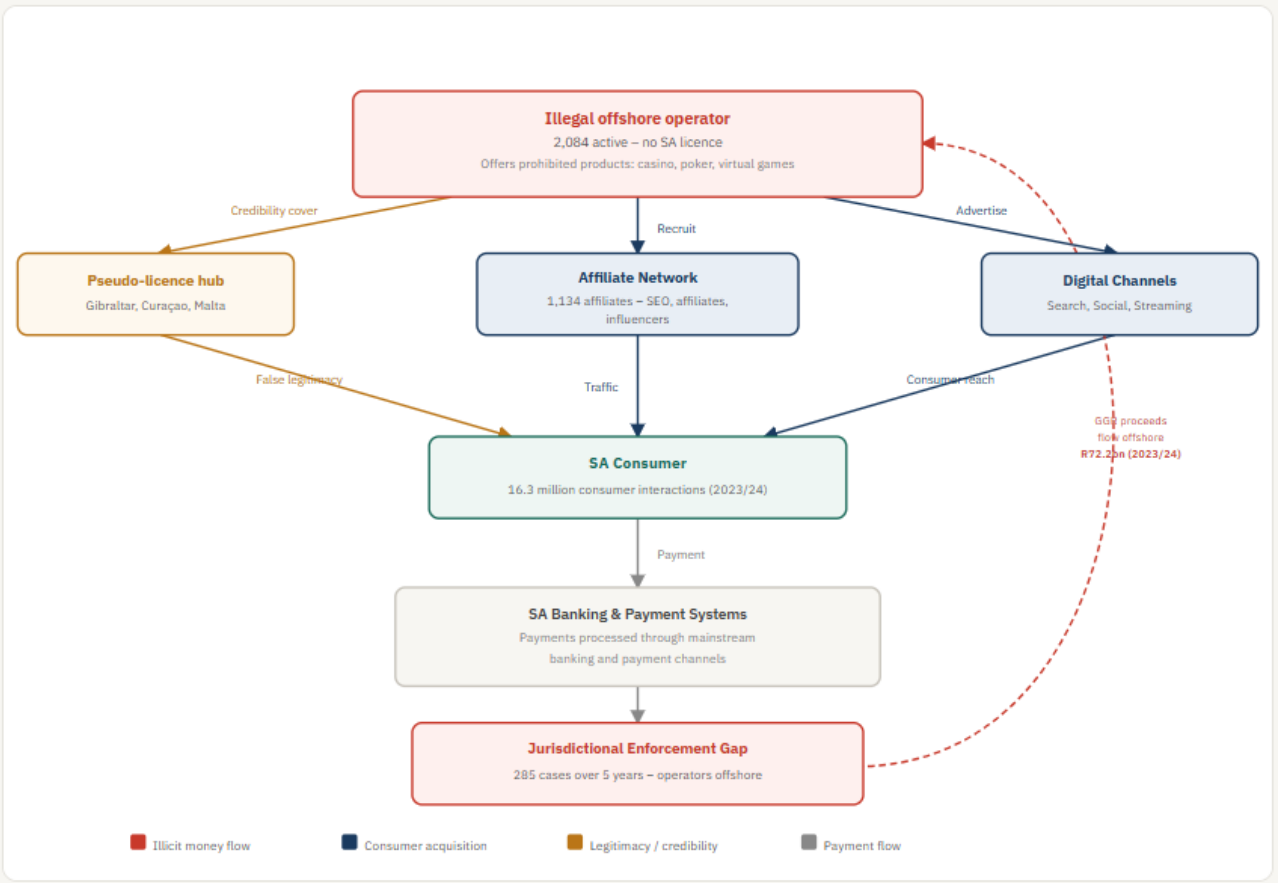
INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
Regulatory framework – 17-year interactive gambling gap The National Gambling Act 2004 prohibited interactive gambling but mandated that legislation to regulate it be enacted within two years. The National Gambling Amendment Act 2008 was passed but never enacted, leaving interactive casino, poker and other forms of online gambling outside the established domestic licensing framework for over 17 years. South African-licensed bookmakers can offer permitted contingency betting, including betting on sports and horse racing, within the applicable provincial licensing framework. However, products such as online casino games, poker and other interactive games of chance fall outside this permitted bookmaker offering. This creates a significant product gap between the regulated domestic market and offshore platforms, which can offer a substantially broader range of online gambling products to South African consumers. This gap means that offshore operators face limited licensed competition in some of their core product categories – particularly online casino and poker – creating a structural incentive for consumers seeking products unavailable through the domestic licensed market to use offshore platforms.	**Absence of website blocking and digital enforcement infrastructure** South Africa does not systematically block illegal gambling websites, unlike jurisdictions such as the UK, Australia and several EU member states where ISP-level blocking is a primary enforcement tool. The NGB engages network operators voluntarily and reports sites to Google Africa for removal, but has no legislative mandate to compel blocking. This means 2,084 illegal operators can maintain uninterrupted access to South African consumers with minimal risk of technical disruption.
Product and price structural advantage for illegal operators Illegal operators avoid South African provincial gambling taxes (6–9% of GGR), national compliance costs, licensing fees and responsible gambling obligations – enabling them to offer higher odds, more generous bonuses, higher return-to-player rates and a broader product range than licensed competitors. This structural cost advantage cannot be competed away by licensed operators under the current regulatory framework, as the disparity stems from regulatory arbitrage rather than operational efficiency.	**Absence of mandatory payment blocking** While exchange controls technically require authorised dealers to decline offshore gambling payments, compliance is inconsistent and enforcement largely passive. South African banks process payments to illegal offshore operators without systematic interception, providing the financial infrastructure that enables the illegal market to function at scale. No mandatory payment blocking regime – of the type operating in the UK, Norway and Denmark – exists in South Africa.
Digital accessibility and anonymous operation Offshore illegal operators can establish, operate, and migrate platforms with minimal fixed costs, no physical presence in South Africa, and no identifiable assets within South Africa's jurisdiction. Platform migration – closing and relaunching under a new domain – can be accomplished in hours, rendering enforcement actions targeting specific URLs largely ineffective. Cryptocurrency payment options further reduce the traceability of financial flows between consumers and illegal operators.	**Low enforcement cost and weak deterrence** Only 285 formal cases were identified over five years against thousands of active illegal operators. Prosecutions are rare, penalties are limited, and the NGB's enforcement mandate against online operators is constrained by jurisdictional limitations – illegal operators are domiciled offshore and outside South Africa's direct legal reach. This is compounded by passive legislation that supports prohibition rather than enforcement. The expected cost of enforcement non-compliance is negligible relative to the returns available from the South African market.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 2 – Structural & Systemic Drivers	
Sophisticated affiliate and digital marketing ecosystems 1,134 affiliates actively promoted illegal operators in 2023/24 using SEO, social media, influencer partnerships and illegal streaming. These affiliate networks provide illegal operators with consumer-acquisition infrastructure that rivals licensed operators' marketing capabilities, enabling them to reach digitally active consumers through trusted and familiar channels at scale.	**Fragmented regulatory mandate and weak inter-agency coordination** Gambling regulation is split between the NGB, nine provincial licensing authorities, SARS, SAPS, the Financial Intelligence Centre and the South African Reserve Bank. No single agency has a comprehensive mandate or sufficient resources to address online illegal gambling across its full value chain – from operator access to consumer payment flows to money laundering proceeds. The provincial licensing framework also creates a structural misalignment in incentives whereby provinces that issue licences capture gambling tax revenue, while many of the broader social and economic harms are borne nationally or across provinces.
Exploitation of major sporting events Illegal operators systematically exploit high-viewership sporting events – AFCON, the Olympics, Premier League seasons – as consumer acquisition opportunities, using targeted digital advertising and illegal streaming partnerships to convert mainstream sports audiences. This event-driven surge in demand allows illegal operators to rapidly scale consumer acquisition during peak periods when enforcement capacity is not correspondingly elevated.	**Shell company structures and offshore incorporation** Illegal operators use frequently changing corporate structures, offshore incorporation in pseudo-licensing jurisdictions and proxy payment processors to evade identification, asset tracing and repeat enforcement. This lack of transparency makes financial investigation and the recovery of assets extremely difficult, even where enforcement action is taken.
Tier 3 – Market-Level & External Factors	
Offshore pseudo-licensing hubs providing credibility cover Small island licensing jurisdictions – including Gibraltar, the Isle of Man, Curaçao and Malta – issue licences that carry no legal weight in South Africa but provide consumer-facing credibility for illegal operators. These pseudo-licences are prominently displayed on illegal platforms, reducing consumer awareness that the operator is acting illegally under South African law and complicating public communication about what constitutes an illegal platform.	**Weak financial intelligence and AML oversight of gambling flows** The proceeds of illegal gambling activity represent a significant and largely unmonitored money laundering risk. Financial flows between South African consumers and offshore illegal operators move through payment processors, cryptocurrency exchanges and informal remittance channels with limited Financial Intelligence Centre visibility, enabling illegal gambling proceeds to re-enter the financial system without detection.
High smartphone and mobile data penetration Smartphone penetration above 70% and growing mobile data affordability have eliminated practical access barriers to illegal gambling platforms for the majority of the South African adult population. Mobile-first platform design by illegal operators has been specifically optimised for the South African market, with low minimum deposits, local payment method integration and Zulu, Xhosa and Afrikaans language options across several major illegal platforms.	**Absence of self-exclusion interoperability** Licensed operators are required to maintain self-exclusion registers, but these do not extend to illegal platforms. Problem gamblers who self-exclude from the licensed market can immediately access illegal platforms without any barrier, undermining the consumer protection framework and potentially increasing problem gambling harm among the most vulnerable consumers.
	Regulated market compliance costs Licensed operators incur additional compliance costs as part of operating within South Africa's regulated gambling framework. These include contributions to the South African Responsible Gambling Foundation (SARGF), which are normally equivalent to approximately 0.1% of gross gaming revenue (GGR). These costs form part of the compliance burden borne by regulated operators but are not necessarily incurred by offshore operators operating outside the South African licensing framework.

Sources: SABA/Yield Sec 2023/24; NGB; National Treasury 2025; Parliamentary Question NW390 March 2025; SABA; ICLG Gambling Laws and Regulations South Africa 2025; own analysis.

The Illicit Gambling Ecosystem

How offshore illegal operators reach and monetise South African consumers



Unlike other illicit sectors, illegal gambling hides in plain sight by operating through the same digital, advertising and financial channels as the licensed market.

How to read this diagram

The diagram reads top to bottom. An offshore illicit operator — one of 2,084 actively targeting South Africa — sits at the centre of the ecosystem. It establishes three enabling channels simultaneously: it secures a pseudo-licence from an offshore hub such as Curaçao or Gibraltar to project an appearance of legitimacy; it recruits affiliates who drive consumer traffic through SEO, social media and influencer marketing; and it advertises directly through search engines, social media and illegal streaming platforms.

All three channels converge on the South African consumer — 16.3 million of whom engaged with illegal gambling platforms in 2023/24. The consumer pays through South African banking and payment infrastructure, which processes these transactions despite exchange control regulations intended to prohibit such transactions.

The proceeds — R72.2 billion in GGR in 2023/24 — flow back offshore to the operator, completing the cycle. At the bottom, the enforcement gap node reflects the structural inability of South African authorities to disrupt this cycle: 285 formal cases over five years against thousands of active operators, all domiciled outside South African jurisdiction.

Sources: SABA/Yield Sec, South Africa 2023/24 Fiscal Year Factsheet; NGB Annual Report 2024/25; Parliamentary Question NW390, Minister of Trade, Industry and Competition, March 2025; Econometrix own analysis.

SCALE OF ILLICIT GAMBLING IN SA – PENETRATION RATE

Methodological approach

Direct measurement of illicit gambling activity is inherently difficult – unlike the physical goods sectors where customs data, import flows and supply-use tables provide multiple independent evidence streams, gambling involves no physical goods, no border crossings and no HS code classification. The standard mirror trade and Supply-Use Table methodologies applied elsewhere in this report cannot be applied here. No Supply-Use Table equivalent is available for gambling services – the SUT methodology applied in other sectors requires a product-level NOE supply figure that does not exist for gambling as a service category in the Stats SA SUT framework.

The primary evidence base for this section is direct market intelligence from specialist gambling market research organisations, supplemented by licensed sector data from the NGB and consumer interaction estimates. This makes the gambling sector penetration estimate both more direct – relying on observed market data rather than indirect proxies – and more dependent on the quality and methodology of a smaller number of primary sources than is the case in other sectors.

Four methods are used:

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Direct market intelligence	Total online gambling GGR split between licensed and unlicensed operators	SABA/Yield Sec, 2023/24	Primary quantitative estimate – most direct available measure of illegal market size
2. Licensed sector benchmarking	Total licensed GGR is denominator for penetration calculation	NGB FY2024/25 statistics	Market size denominator and cross-check against illegal market estimates
3. Consumer interaction data	Share of population interacting with illegal platforms	SABA/Yield Sec, 2023/24	Consumer-side penetration indicator
4. International benchmarking	Comparable illegal market penetration in similar regulatory environments	UNODC	Plausibility check against international experience

Estimating the Size of the Legal Gambling Market

South Africa is the largest regulated gambling market in Africa. According to the NGB, total gambling turnover reached R1.5 trillion in 2024/25 – a 31.3% increase from the prior year – with gross gambling revenue (GGR)[28] of R74.5 billion, a 25.6% year-on-year increase.

- The sector is dominated by betting, which generated R52.0 billion (69.8%) of GGR, driven almost entirely by online sports and contingency betting through licensed bookmakers.
- Online betting now accounts for over 85.5% of total betting GGR (R44.5 billion), with retail betting contributing only R7.5 billion. The online gambling market experienced a structural acceleration post-2021, driven by rapid digital adoption, aggressive marketing expansion and persistent regulatory gaps. The adoption of new betting

[28] *The rand value of the gross revenue of an operator i.e. turnover less winnings paid to players*

products, including contingency betting, has also supported the shift towards online channels by expanding the range of products available to consumers and creating opportunities for re-channelisation from other betting channels.

- Betting GGR has grown 390% from R10.6 billion in 2020/21.
- Casino GGR declined 4.1% year-on-year to R16.6 billion (22.3% of GGR).
- Total taxes and levies from the licensed sector reached R5.8 billion in 2024/25 – betting R3.4 billion (58.9%), casinos R1.7 billion (29.5%), LPMs R525 million (9.0%) and bingo R146 million (2.5%).

These figures are independently corroborated by Stats SA's Personal Services Industry Report and National Accounts data.

Bookmaker and online gambling services generated R152.6 billion in income from services rendered in 2023 – up from R10.1 billion in 2018, representing a 72% compound annual growth rate over the period, and outpacing all other activities in the personal services industry.

Casino and gambling house services, by contrast, declined 3.3% per annum over the same period – confirming the structural substitution of physical gambling with digital alternatives, as seen in the NGB data.

From a household spending perspective, Statistics South Africa's 2025 CPI basket confirms the significance of gambling in South Africa's consumer economy. Gambling accounts for 1.6% of total household expenditure, making it the 12th-largest category in the CPI basket, just behind beer.

Within the broader recreation, sport and culture category, gambling is by far the dominant expenditure item, accounting for 54.5% of total spending in the category – more than all other subcategories combined. The next-largest components are gym fees (5.9%), followed by toys such as dolls, toy building bricks and toy cars (each 4.9%), and dog food pellets (4.2%). The remaining 25% of expenditure is spread across 17 smaller categories, none of which accounts for more than 2.1% of the total.

The prominence of gambling within household expenditure highlights both the scale of the industry and its importance within South Africa's broader consumer economy. It also means that changes in gambling expenditure and pricing – including the growing shift towards unregulated online gambling platforms – have the potential to influence measured consumer spending patterns and, ultimately, headline inflation outcomes.

Method 1: Direct Market Intelligence

The primary quantitative estimate of the illicit gambling market is drawn from SABA/Yield Sec market intelligence for 2023/24 – the most comprehensive independent measurement of the South African online gambling marketplace available, distinguishing GGR by licensed and unlicensed operators across product segments.

Table 39: South African Online Gambling Marketplace – Legal vs Illegal GGR, 2023/24

Segment	Legal GGR	Illegal GGR	Total	Illegal Share
Sports, casino and poker	R33.4bn	R55.1bn	R88.5bn	62.3%
Total online marketplace	R33.4bn	R72.2bn	R105.6bn	68.4%

Source: SABA/Yield Sec, South Africa 2023/24 Fiscal Year Factsheet

The illegal online gambling market generated an estimated R72.2 billion in GGR in 2023/24 – equivalent to 68.4% of the total online gambling marketplace of R105.6 billion. In the sports, casino and poker segment specifically, illegal operators captured R55.1 billion (62.3%) of the market compared with R33.4 billion (37.7%) for legal operators. These figures mean the illegal online gambling market is larger than the entire South African licensed gambling sector across all modes combined.

The higher illegal share in the total marketplace (68.4%) versus the sports/casino/poker segment (62.3%) reflects the concentration of illegal activity in interactive casino and poker categories – products that are flatly prohibited for licensed South African operators – where illegal platforms face no licensed competition whatsoever.

Scale of operator presence and consumer impact:

- 2,084 illegal operators actively targeted South Africa in 2023/24
- 1,134 affiliates promoted illegal platforms to South African consumers
- 27% of South Africans – 16.3 million people – interacted with illegal gambling platforms in the period
- Despite this scale, only 285 formal enforcement cases were identified over the five-year period from 2018 to 2023 – confirming the fundamental mismatch between market scale and enforcement capacity.

Method 2: Licensed Sector Cross-Check

The NGB licensed GGR of **R74.5 billion** for 2024/25 provides an independent denominator cross-check. Based on the SABA illegal market estimate of **R72.2 billion**, the implied total gambling market (legal and illegal combined) is approximately R146.7 billion. Of this total, the illegal market accounts for approximately 49% of the combined total on a GGR basis across all modes of gambling.

This is a more **conservative** framing than the 68.4% online marketplace figure, because the NGB denominator includes land-based casinos, LPM, and bingo GGR that are not part of the online illegal market.

The two figures are therefore measuring different denominators and are not contradictory: the 68.4% applies to the online marketplace specifically, while the 49% applies to the combined online and land-based total.

Method 3: Consumer Interaction Data

SABA/Yield Sec data indicates that 27% of South Africans – 16.3 million people – interacted with illegal gambling platforms in 2023/24. This consumer-side penetration indicator is consistent with the GGR-based market share estimate and provides an independent demand-side signal of the scale of illegal market participation.

The NGB's own gambling prevalence data for 2024/25 indicate that 65.7% of the South African population participated in gambling of some form – implying that a substantial proportion of active gamblers are engaging with both licensed and unlicensed platforms.

Method 4: International Benchmarking

Table 40: Illicit Gambling – International Reference Range

Jurisdiction	Period	Illegal Share	Context
UK pre-point-of-consumption reform	Pre-2014	~15–20%	Pre-regulation comparator – similar prohibition dynamic
Global illicit betting (UNODC)	2021	$1.7tn wagered illicitly	Global scale reference – not directly comparable
Average – prohibition jurisdictions	Various	50–70%	Jurisdictions with online casino prohibition face structural illegal market dominance

Sources: UNODC (2021); GBGC/H2 Gambling Capital pre-2014 UK data; own analysis

South Africa's estimated 62–68% illegal share of the online marketplace is consistent with the upper end of international experience for jurisdictions that prohibit interactive gambling yet fail to enforce the prohibition – a dynamic well documented in comparable markets.

Penetration Rate Matrix: Triangulated Outcome

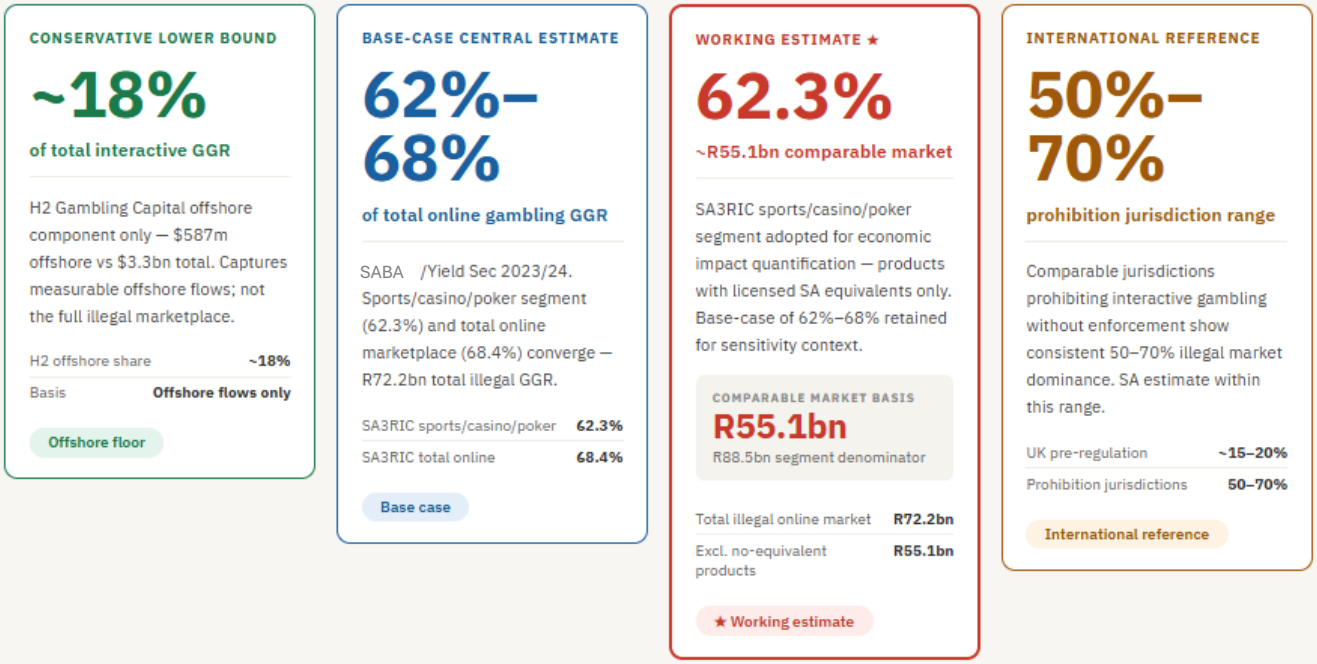
Unlike most other sectors in this report, the gambling penetration estimate cannot be triangulated across multiple independent methodological approaches – the absence of physical goods data means the mirror trade, SUT and seizure-based methods used elsewhere are not applicable.

The triangulation is therefore between two SABA estimates (total marketplace and segment-specific) and the international benchmarking range.

The 68.4% SABA total marketplace estimate is treated as the primary finding, with the following considerations:

- The consistency between the total marketplace figure (68.4%) and the sports/casino/poker segment figure (62.3%) provides internal cross-validation.
- International benchmarking confirms that a 60–70% illegal market share is consistent with comparable prohibition jurisdictions.
- The NGB combined market cross-check implies a ~49% illegal share of total gambling GGR – a more conservative figure that uses a broader denominator.

Triangulated estimate. The SABA/Yield Sec primary estimates (62.3%–68.4%) are internally consistent and fall within the international prohibition-jurisdiction range (50%–70%). While the 68.4% estimate represents the total online marketplace, the study adopts the more conservative 62.3% segment-specific estimate–equivalent to approximately R55.1 billion–as the working estimate for all economic, fiscal and employment impact modelling.



Note: The analysis uses the R55.1 billion comparable illegal market, limited to gambling products with licensed South African equivalents. The broader illegal market (R72.2 billion) includes products without licensed domestic equivalents; these activities largely displace offshore operators rather than the South African formal sector and are therefore excluded from the GDP, fiscal and employment modelling.

Table 41: Estimate of Illicit Gambling Penetration – South Africa (Summary)

Method	Estimate	Basis	Role
Primary estimates			
SABA/Yield Sec – total online marketplace	68.4% §	R72.2bn / R105.6bn	**Internal cross-validation**
SABA/Yield Sec – sports/casino/poker segment	**62.3% §**	R55.1bn / R88.5bn	**Primary estimate**
Cross-checks			
NGB combined market cross-check	~49%†	R72.2bn / R146.7bn	**Conservative – broad denominator**
International reference			
Comparable prohibition jurisdictions	50–70%	International range	**Plausibility check**
Central estimate ★ (SABA primary estimate)	62.3% of online gambling	R55.1bn	Primary finding

§ The 62.3% penetration estimate is derived primarily from SABA/Yield Sec market intelligence and cannot be independently triangulated through the multiple methods used in other sectors of this report. It should be treated as the best available market intelligence estimate. The consistency between the SABA total marketplace figure (68.4%) and the segment figure (62.3%), combined with independent corroboration from international benchmarking, provides reasonable confidence in the order of magnitude.

† Combined market denominator derived by adding NGB licensed GGR (R74.5bn, FY2024/25) to SABA illegal online GGR estimate (R72.2bn, 2023/24). Note that the two figures cover slightly different periods and measurement bases – the 49% should be treated as indicative rather than precise.

Note: SABA/Yield Sec market data (2023/24): the comparable illegal online market (sports, casino, poker – products with licensed equivalents) generated R55.1bn in GGR – 62.3% of the R88.5bn online segment and equivalent to 74% of total licensed sector GGR. The total illegal online market, including products without licensed SA equivalents (unofficial lotteries, DFS, crypto casinos), reached R72.2bn. The R17.1bn difference largely flows offshore; it is excluded from GVA, tax and employment calculations as it represents activity for which no domestic legal framework exists. Gambling's estimate draws on direct market surveillance data covering 2,084 identified illegal operators targeting South African consumers.

The Gambling Industry's Value Chain and Economic Linkages

The licensed gambling industry generates economic activity across several interconnected sectors.

- **Upstream linkages**: licensed operators procure technology, payment processing, software development, data analytics, marketing and advertising services, sports data and rights, and stadium and venue operators, creating linkages to the technology, media and professional services sectors.
- **Licensed operating sector**: The shift toward online sports betting has deepened these linkages, with licensed operators (provincial bookmakers, casino operators, LPM operators, bingo operators) investing substantially in digital platforms, mobile application development and cybersecurity infrastructure.
- **Downstream linkages and fiscal ecosystem**: the licensed sector supports retail betting outlet networks, online platforms, advertising and media spend, responsible gambling services, provincial gambling board operations and – through tax and levy contributions – provincial and national government revenue.

  The taxes and levies collected from the licensed sector in 2024/25 fund public services across all nine provinces, with the Western Cape (30.0%), Gauteng (20.0%), Mpumalanga (25.3%) and KwaZulu-Natal (12.6%) collectively accounting for over 87% of total provincial gambling tax revenue.

> The concentration of illicit gambling in the online channel means that the primary economic harm falls on licensed online operators – who bear the full cost of national (VAT) and provincial taxes, compliance, responsible gambling obligations and technology investment – and on provincial and national tax revenue, which is foregone on the estimated R72.2 billion in illegal online GGR.
>
> Unlike manufacturing-intensive sectors where illicit trade displaces domestic production and factory employment, illicit gambling displaces licensed operator revenue, tax contributions and the consumer protection infrastructure that licensed operators are required to fund. This distinction has direct implications for the economic impact modelling set out below.

Economic Impact of Illicit Gambling

Illicit gambling imposes economic costs on South Africa's formal sector that extend well beyond the direct market displacement estimate. The base-case illicit market estimate of R55.1 billion in illegal online GGR (2023/24, Table 3) represents gambling expenditure diverted from licensed, tax-compliant operators – but it does not translate directly into an equivalent GDP loss, and the economic impact mechanism differs fundamentally from that of every other sector in this report.

Unlike in the physical goods sectors where illicit trade disrupts domestic manufacturing, retail and distribution activities, illicit gambling displaces a regulated service industry whose economic contribution flows through taxation, employment in licensed operations, and downstream spending on technology, marketing, sports rights and professional services.

The online gambling sector is characterised by significant offshore revenue leakage, with a portion of gambling expenditure flowing to operators that contribute little to domestic employment, investment or broader economic activity.

Unlike most sectors examined in this report, the primary economic concern is not the movement of physical goods outside the tax net, but the diversion of expenditure into offshore and unregulated channels. The economic costs therefore arise less from lost production and more from the erosion of formal-sector value added, tax revenue, employment, consumer protection and regulatory oversight.

The economic impact of illicit gambling operates through several interconnected channels:

- **Lost revenue and competitive harm to licensed operators** – illegal operators are estimated to account for between 62% and 68% of South Africa's online gambling marketplace, depending on the market definition applied, displacing revenue from licensed operators, weakening margins, reducing investment capacity and undermining broader ecosystem spending on technology, marketing, sports partnerships and responsible gambling infrastructure. The licensed market's share of online gambling is declining rather than growing, with illegal operators gaining market share over time.
- **Foregone fiscal revenue** – illicit gambling materially erodes provincial and potential national tax revenue by diverting gambling expenditure away from licensed operators into untaxed offshore platforms, reducing the public revenue base linked to the gambling sector.
- **Consumer welfare losses** – consumers using illegal platforms have no access to responsible gambling safeguards, self-exclusion mechanisms, dispute resolution or consumer protection. Problem gamblers who self-exclude from the licensed market can immediately access illegal platforms, undermining the effectiveness of the regulated harm-minimisation framework.
- **Money laundering and financial crime risks** – R72.2 billion in annual GGR flowing through offshore illegal operators (the full illegal market, including product categories without licensed SA equivalents) represents a significant potential money-laundering and illicit financial flow risk, given the offshore nature of many operators and the limited visibility available to domestic regulators.

- **Sports integrity risks** – South Africa's high online sports betting volumes create material exposure to match-fixing and sports integrity manipulation, with illegal betting markets providing the financial infrastructure through which corruption in sport is frequently funded.[29]
- **Chilling effect on licensed market entry** – international operators considering South Africa face an environment in which a substantial share of the addressable online market is already captured by illegal competitors who pay no local taxes and operate outside domestic regulatory obligations. This acts as a structural deterrent to investment, product innovation and digital platform development within the licensed market.

The impact modelling that follows quantifies the measurable economic effects using the base-case illicit market estimate and licensed sector multipliers. Consumer welfare, financial crime and sports integrity impacts, while material, are addressed qualitatively given the limitations of direct quantification.

Methodological note

This study focuses on the **direct economic, employment and fiscal impacts of illicit gambling and does not include broader economy-wide multiplier effects** in the central estimates. While illicit gambling activity is likely to generate additional indirect and induced impacts – through supply-chain disruption, reduced household spending in the licensed economy and lower business activity among regulated operators – quantifying these effects introduces a material risk of overlap and double-counting across impact channels.

The direct-impact approach provides a **conservative and transparent estimate** of the economic costs associated with illicit gambling. The impacts presented in this section should therefore be interpreted as a lower-bound estimate of the true economic cost to South Africa.

[29] *UNODC (2021); see also GBGC/H2 Gambling Capital analysis of illegal betting and sports corruption*

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Gambling

The gambling sector contributes an estimated R10.4 billion in direct government revenue annually through gambling levies and taxes on products, alongside activity-related taxes. Illicit trade erodes this contribution by diverting gambling activity away from licensed operators and outside the formal tax and regulatory system.[30]

Direct formal sector taxes — current

R10.4bn

Gambling taxes & levies: R5.8bn (55.8%)
Activity taxes → R2.7bn
PIT → R1.9bn

Gambling taxes & levies · Activity taxes · PIT

Potential tax revenue if illicit demand redirected to compliant operators

R18.1bn

Estimated direct government tax revenue if demand captured by illicit gambling trade were fully redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

Direct tax loss from illicit trade

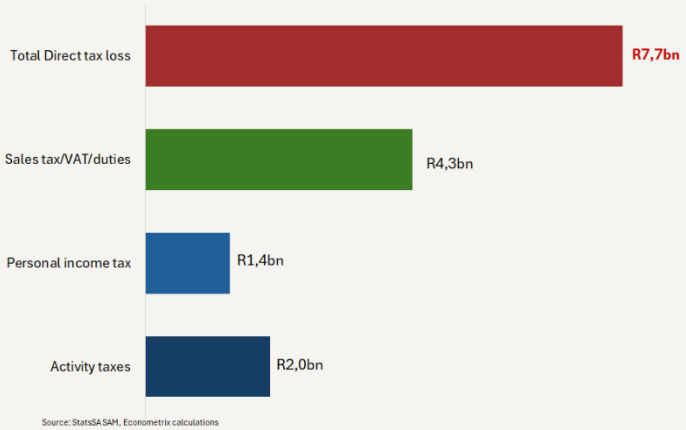
R7.7bn

Gambling taxes & levies (lost): R4.3bn (55.8%)
Activity taxes → −R2.0bn (26.0%)
PIT → −R1.4bn (18.2%)

Gambling taxes & levies (lost) · Activity taxes · PIT

The fiscal suppression effect

Government tax revenue displaced by illicit trade in the gambling sector
Direct tax loss



Based on the estimated size of the illicit gambling market, illicit gambling activity is estimated to result in approximately R7.7 billion in direct tax losses annually – one of the largest proportional fiscal losses relative to the formal tax base of any sector in this report.

Consequently, direct tax revenue from the sector could increase from approximately R10.4 billion currently to an estimated R18.1 billion if the demand currently captured by illicit trade were redirected to compliant operators.

The majority of this loss – approximately R4.3 billion (55.8%) – arises from foregone gambling levies and related product taxes. A further R2.0 billion (26.0%) arises from lost activity taxes, reflecting the significant regulatory and licensing burden borne by licensed operators and avoided by illicit providers. Personal income tax (PIT) accounts for a further R1.4 billion loss.

The fiscal argument for enforcement

The estimated R7.7 billion annual tax loss represents revenue that could potentially be recovered through improved enforcement against unlicensed gambling operators, online platform regulation, strengthened know-your-customer requirements on licensed platforms, and more effective coordination between the National Gambling Board, provincial licensing authorities and SARS.

Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance and licensing enforcement within existing gambling regulatory frameworks – including the National Gambling Act and provincial licensing regimes.

[30] *Gambling is not identified as a separate industry in the Stats SA SUT; accordingly, the structure of 'Recreational and culture' was used as a proxy. This may result in a conservative estimate, particularly for VAT. Under this structure, the net sales tax component is 7.8%, which is lower than the 11%–12% effective net VAT ratio indicated by the industry.*

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Gambling

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit gambling using a three-step approach.

South Africa's gambling sector is a regulated concession industry that generates value through house margins on licensed gaming activities across casinos, sports betting, limited-payout machines and online platforms. Illicit gambling – encompassing unlicensed operators, illegal online platforms, unregulated sports betting and informal numbers games – displaces formal licensed activity without generating the associated licensing levies, regulatory compliance costs, employment benefits and tax contributions of compliant operators.

Unlike goods-based sectors, gambling has no trade and transport margins to strip from the illicit market estimate – the displacement of formal gambling revenue occurs directly at the point of unlicensed activity, making the relationship between illicit market size and formal output displacement more direct than in manufacturing or import-dependent sectors.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the gambling sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R55.1 billion is expressed at formal market-equivalent prices. As a pure service sector with no trade and transport margins, the full estimate equates directly to approximately R50.8 billion in displaced formal-sector output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit gambling is estimated at R24.6 billion annually, comprising two components:

- **Direct GVA displaced**: R20.3 billion – derived by applying the sector's GVA-to-output ratio of approximately 39.9% (SUT-derived) to the displaced output of R50.8 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on services**: R4.3 billion – gambling levies and product taxes on displaced licensed activity that accrue to government rather than the sector, and are therefore reported separately from sector GVA.

Key methodological notes

The R55.1 billion working estimate represents the primary illicit market estimate expressed at formal market-equivalent prices and should be interpreted as the maximum plausible economic cost of illicit gambling. Impacts under conservative scenarios would be proportionally lower.

The analysis estimates economic activity currently displaced by illicit gambling and should not be interpreted as a forecast that the full illicit market would immediately convert into licensed activity if illicit gambling were eliminated. A portion of illicit gambling demand may not convert to formal channels even under improved enforcement.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are taken into account. However, these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- South Africa's gambling sector is a service industry with no manufacturing or import component. Illicit gambling displaces formal licensed activity across casinos, sports betting and online platforms without generating the associated licensing levies, regulatory oversight, responsible gambling obligations and tax contributions of compliant operators.
- The scale of illicit gambling relative to the formal sector is exceptionally large. The estimated illicit market of R55.1 billion is equivalent to approximately **74% of the formal gambling sector's measured GVA** of R27.4 billion. This **displacement ratio** is not a market-share measure, but rather an indicator of the scale of illicit activity relative to the formal sector's direct contribution to GDP.
- The result suggests that illicit gambling materially suppresses measured sector output, value added and tax revenues. Under the working estimate, illicit gambling is estimated to displace approximately R50.8 billion in formal-sector output, R20.3 billion in direct-sector GVA and R24.6 billion in total GDP impact annually.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R27.4bn
2	Illicit market estimate (formal-equivalent prices, upper-bound)	R55.1bn
	Less: trade and transport margins	–
	= Displaced formal production output (at basic prices)	R50.8bn
	× Sector GVA/output ratio (SUT-derived)	~39.9%
3a	= Direct GVA displaced by illicit trade	R20.3bn
3b	+ Foregone taxes on products due to displaced activity	R4.3bn
3c	= Direct GDP impact of illicit trade	R24.6bn
COUNTERFACTUAL	Direct Gambling GVA if illicit trade were eliminated	R47.7bn

* After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R50.8 billion in displaced formal sector production output.

Counterfactual = estimated direct gambling sector GVA if illicit gambling were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R27.4bn	**R20.3bn**	**R24.6bn†**	**~R47.7bn**	**R50.8bn**
0.4% of total SA GVA	annually through illicit gambling	Direct GVA displaced (R20.3bn) *plus* foregone taxes on products due to displaced activity (R4.3bn)†		annually by illicit gambling (at basic prices)

Market-size displacement ratio ‡ **74%** *Illicit market is equivalent to approximately three-quarters of the comparable formal licensed gambling market*

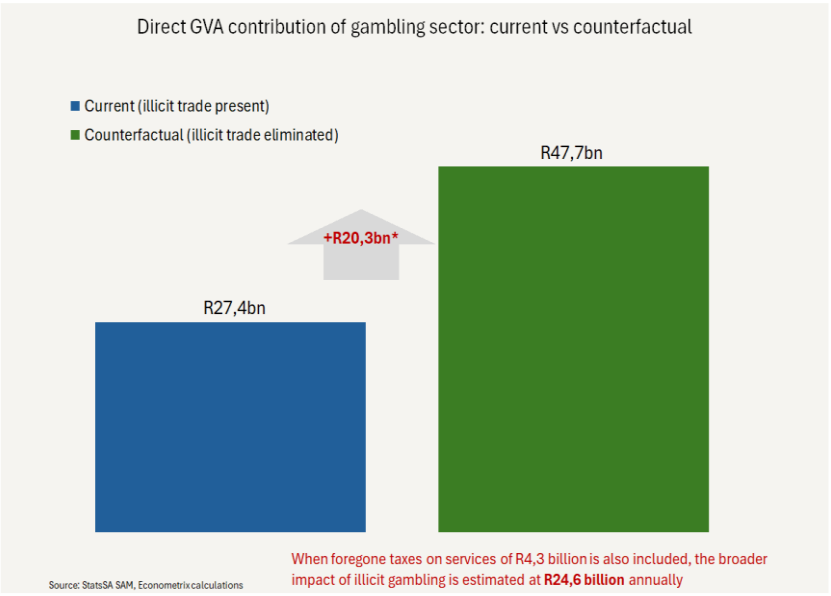
† GDP impact = direct GVA displaced plus foregone taxes on services on displaced activity. Sales taxes accrue to government rather than the sector and are therefore reported separately from sector GVA. GVA measures the sector's direct economic contribution – the value of output less the cost of inputs – and is the technically precise measure for sector-level analysis. GDP equals GVA plus net sales taxes on products.

‡ Market-size displacement ratio = estimated illicit gambling market expressed at comparable formal-market prices as a percentage of the estimated formal licensed gambling market.

The illicit trade suppression effect

Approximately R55.1 billion of gambling activity occurs through illicit channels annually, diverting demand away from licensed, tax-paying operators.

Under the working estimate, this is estimated to displace approximately R50.8 billion in formal-sector output, R20.3 billion in direct-sector GVA and R24.6 billion in total GDP impact annually.



As a result, the measured economic contribution of the gambling sector is substantially suppressed, with official GVA estimates materially understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

The impact of illicit gambling extends beyond lost tax revenue. By diverting expenditure away from licensed operators, illicit gambling suppresses the formal sector's measured contribution to GDP. It reduces incentives to invest in regulated gambling infrastructure, technology platforms and related business services.

Unlike many other illicit sectors where displacement occurs through complex supply chains, gambling activity translates directly into lost formal-sector value added. As a result, improved enforcement and regulatory reform have the potential not only to strengthen the fiscal position but also to increase the formal economy's measured output and contribution to economic growth.

Contribution To SA's Employment and the Impact of Illicit Gambling

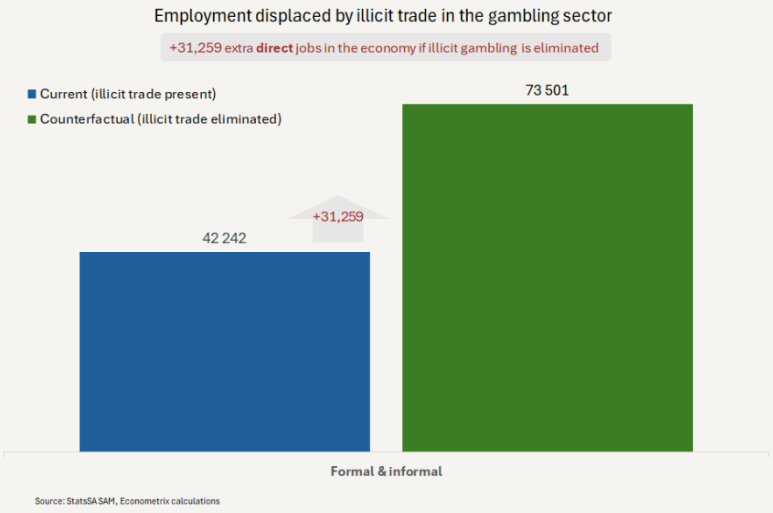
The gambling sector supports formal employment across a network of licensed casinos, sports betting operators, limited-payout machine routes and online platforms – providing structured, regulated employment in both urban entertainment precincts and broader retail and hospitality environments.

- **Formal** employment accounts for approximately 78.5% of total sector employment (21.5% informal).
- **Unskilled workers** account for approximately 43.0% of direct formal employment, while a further 35.9% are **semi-skilled**. Consequently, the employment impact of illicit gambling falls disproportionately on workers with relatively limited alternative formal employment opportunities, particularly in casino operations, hospitality and support services.
- While illicit gambling primarily displaces formal sector activity, sustained pressure from unlicensed operators ultimately constrains the sector's capacity to invest, expand and sustain formal employment across its licensed network.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment if illicit demand shifted to compliant businesses	Unskilled job share
42,242 jobs	**31,259 jobs**	**73,501**	**43.0%**
Formal: 33,169 (78.5%) Informal: 9,073 (21.5%)	Formal: 24,538 Informal: 6,721	*(formal and informal)*	A further 35.9% of jobs are semi-skilled. Displacement affects mainly workers who face limited alternative formal employment opportunities

The employment suppression effect

The gambling sector currently employs around 42,242 people in the formal and informal sectors.



Applying the sector-specific direct GVA displacement ratio[31] (74.0%) to current employment levels suggests that **approximately 31,259 direct formal and informal jobs are displaced** by illicit gambling – one of the highest proportional employment displacements of any sector in this report, reflecting the scale of illicit activity relative to the formal sector base.

Total direct-sector employment **could potentially reach approximately 57,714 formal jobs** if activity currently captured by unlicensed operators were redirected towards compliant licensed businesses.

The licensed gambling sector currently supports approximately 182,540 formal and informal jobs across the broader South African economy through upstream and downstream value-chain linkages. Consequently, the wider employment benefits

[31] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

of reducing illicit gambling would extend beyond the sector's direct workforce, although these indirect and induced employment gains have not been quantified in the central estimates.

These jobs represent employment that could potentially be supported within the licensed gambling value chain–across casino operations, sports betting, LPM routes and online platforms–if illicit gambling were reduced and displaced activity recovered by compliant operators.

The employment argument for enforcement

The employment impact of illicit gambling extends beyond lost revenue. By diverting gambling activity away from licensed operators, illicit gambling reduces incentives for investment in new licensed venues, platform development and workforce growth across the formal sector.

Given the sector's concentration of low-skilled workers in casino floor, hospitality and support roles – combined with the exceptionally high displacement rate relative to other sectors – reducing illicit gambling could support substantial employment retention among workers with limited alternative formal employment opportunities, while strengthening the long-term investment case for licensed gambling infrastructure.

SECTOR CHAPTER

10

Illicit Mining Market

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R767bn
Annual mining sales
(total; average 2019–2025)

460,012
Direct employment (formal + informal)
97% formal; one of SA's largest formal employers

R530.6bn
Direct sector GVA contribution
8% of SA GVA

R40.7bn
Current direct government revenue
Taxes on products R498m · PIT R32.8bn (80.6%) · Activity R7.5bn

⚠ **Sector-defining characteristic:** Unlike the other sectors examined in this study, illicit mining occurs at the **point of extraction** rather than through import, manufacturing or retail channels. Illegal production takes place inside active and abandoned mine workings through sophisticated organised criminal syndicates with dedicated financing, logistics, security and international smuggling networks. As a result, the primary enforcement levers are **mine security, shaft closure, mine rehabilitation and disruption of criminal syndicates**, rather than border or retail enforcement.

PRIMARY FORMS OF ILLICIT TRADE

1	**Illegal extraction.** ~30,000 illegal miners across ~6,000 abandoned shafts; activity extending into licensed operational areas; DMRE and industry estimates indicate substantial losses to the formal gold sector; 15,000+ arrests under Operation Vala Umgodi since Dec 2023.	Highest
2	**Illicit exports.** Gold, chrome and PGMs laundered through a **five-tier syndicate structure** to offshore refineries; counterfeit documentation used to establish legal provenance; front companies and fraudulent customs codes employed; mirror trade gaps in HS 7108 consistent with systematic under-declaration.	High
3	**Product theft.** Gold-bearing material, PGMs and copper targeted across active operations; material financial and security costs borne by compliant mining companies; insider facilitation and organised criminal involvement documented.	High

KEY DEMAND DRIVERS

- **High unemployment and poverty** — Large earnings differentials create a persistent labour supply for illegal mining networks.
- **Record commodity prices** — Gold reached record highs in 2025, while rising prices for copper, nickel, PGMs and chrome have expanded incentives beyond gold.
- **Downstream demand from traders and refiners** — Weak due diligence and falsified documentation enable illegally sourced minerals to enter formal global supply chains.

KEY SUPPLY ENABLERS — TIER 1

- **~6,000 abandoned mine shafts** — Ready-made extraction infrastructure; slow rehabilitation and shaft closure create persistent structural opportunities.
- **Five-tier organised syndicate structure** — Financing, equipment, logistics, market access and international laundering transform opportunistic extraction into industrial-scale criminal operations.
- **Corruption and governance weaknesses** — Criminal infiltration of law enforcement and local governance structures reduces enforcement effectiveness and facilitates illicit mining.

ILLICIT VALUE CHAIN — FIVE-TIER SYNDICATE STRUCTURE

1	2	3	4	5
Tier 1: Extraction ★	**Tier 2–3: Syndicate Operations**	**Tier 4: Trade & Laundering ★★**	**Export**	**Tier 5: Finance**
Zama zama miners Abandoned & active shafts **Primary Intervention**	Underground bosses Surface coordinators Equipment & supply	Front companies Licensed scrap exporters **False documentation**	Offshore refineries False provenance HS 7108 under-declaration	International criminal networks · International profit laundering

★ Extraction — primary intervention point: Operation Vala Umgodi, mine security, abandoned mine closure · ★★ Trade & Laundering — secondary intervention: export documentation controls, SARS customs risk profiling, international refinery due diligence · Unlike the consumer goods sectors examined in this study, enforcement must focus on production formalisation, mine security and shaft closure, rather than border or retail interception.

ILLICIT PENETRATION RATE — MINING (WORKING ESTIMATE)

7.8%

Illicit penetration rate

~R60bn

per year at market prices

Working estimate anchored in the ministerial and regulatory estimate of approximately R60 billion in annual illicit mining activity (7.8% of total mining sales). Corroborated by DMRE estimates, PwC *SA Mine* analysis and mirror trade evidence for gold (HS 7108), which indicates persistent export under-declaration. The 7.8% estimate is adopted for all economic impact, fiscal and employment modelling.

FISCAL DISPLACEMENT — ILLICIT MINING

CURRENT SECTOR TAX BASE

R40.7bn

Annual government revenue from mining sector

PIT R32.8bn · Activity taxes R7.5bn · Sales taxes R498m

→

ANNUAL TAX LOSS — ILLICIT MINING

R1.9bn

Direct fiscal cost of illegal mining annually

PIT R1.5bn (81%) · Activity taxes R353m · Sales taxes R24m

NATURE OF THE LOSS

81% of loss is PIT — a formal employment displacement problem, not a border enforcement problem.

Recoverable through formalisation of production & reduced displacement of formal mining employment.

POTENTIAL IF DEMAND REDIRECTED

R42.6bn

Potential tax revenue if illicit mining activity redirected to compliant formal operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT MINING

R530.6bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R60.0bn

Formal-sector production output displaced annually

R25.0bn

Direct sector GVA displaced annually

One of the largest of any sector studied

R25.04bn

Direct GDP impact annually

GVA R25.0bn + taxes on products R24m

R555.6bn

Potential GVA if illicit activity eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT MINING

460,012

direct jobs

Formal: 444,441 (96.6%)
Informal: 15,571 (3.4%)

21,621

jobs displaced

Formal: 20,889 · Informal: 732

66.8%

semi-skilled formal job share

Displacement falls primarily on semi-skilled workers, with a further 20.0% affecting unskilled formal workers

~481,633

jobs — potential direct employment

Total direct-sector employment could potentially reach approximately 481,633 jobs if output currently captured by illicit operators were redirected towards licensed mining operations



GVA = gross value added; measures the sector's direct economic contribution before production taxes.
GDP impact = GVA plus foregone taxes on products.
Employment displacement applies a 4.7% sector-specific direct GVA displacement ratio to current direct employment levels. ·
*Tax loss is a direct estimate**; broader multiplier effects are not included to avoid double-counting.** ·

OVERVIEW OF ILLICIT MINING MARKET IN SOUTH AFRICA

Global context. Illegal mining is among the most environmentally destructive and economically damaging forms of illicit trade globally, spanning criminal activity across the minerals supply chain – from unlicensed extraction and the use of banned chemicals to fraudulent trading, smuggling and the laundering of illegally sourced minerals into formal markets. Two converging trends are intensifying the challenge. First, gold – historically the most prominent mineral in illegal mining – remains highly vulnerable to money laundering and illicit financial flows due to its high value, portability and convertibility to cash, with prices reaching a record high in April 2025, nearly 50% above the same period in 2024. Second, accelerating demand for critical energy transition minerals (CETMs) – including lithium, cobalt, copper, nickel and rare earth elements – is creating rapidly expanding opportunities for minerals crime as demand outpaces supply and supply chains remain concentrated in a limited number of jurisdictions.

Organised crime, corruption and consequences. Organised criminal groups (OCGs) have become deeply embedded in global gold and mineral supply chains, exploiting weak oversight, corruption and illicit trade networks to move illegally sourced minerals into formal markets through false declarations, front companies and money laundering mechanisms. Once minerals enter refining hubs – concentrated largely in Europe, Eastern Asia and Western Asia – tracing origin becomes increasingly difficult. The impacts are multi-dimensional. Producing countries lose tax revenue and institutional capacity, communities face environmental damage, forced labour and displacement, and the integrity of the global energy transition is undermined as demand increasingly depends on the ethical sourcing of minerals that are often most vulnerable to criminal exploitation.

South African context. South Africa occupies a unique and deeply exposed position in the global illegal mining landscape. As the world's largest producer of platinum group metals (PGMs) and a major producer of gold, chrome, coal, and diamonds, the country combines the highest-value mineral endowment in sub-Saharan Africa with structural vulnerabilities – socioeconomic, geographic and institutional – that make it one of the jurisdictions most affected by illegal mining globally. Mining contributes approximately 7.5% to GDP and 60% of exports, making the integrity of the sector a matter of national economic security rather than solely a law enforcement challenge.

An important definitional distinction. Illegal mining is a criminal activity conducted in direct contravention of South African law. It is linked to organised crime, illicit financial flows, violence, human trafficking, and the smuggling of weapons and explosives. Artisanal and small-scale mining (ASM), by contrast, is a legitimate economic activity undertaken within a regulated framework.

Minister Gwede Mantashe has identified the conflation of the two as a persistent policy challenge that obscures the criminal nature of organised syndicates involved in illegal mining and complicates enforcement responses. South Africa's 2022 Policy on Artisanal and Small-Scale Mining seeks to formalise ASM and enable lawful economic participation while strengthening the distinction between legitimate small-scale activity and organised criminal mining operations.

The transformation of the zama zama phenomenon. South Africa's illegal miners – commonly referred to as *zama zamas* – were historically associated with small-scale gold recovery from old tailings dumps and abandoned shafts. However, this characterisation increasingly understates the scale and complexity of the current challenge. Illegal mining has evolved beyond informal extraction into a more organised and economically entrenched criminal activity that increasingly extends beyond abandoned infrastructure into operational and licensed mining areas.

Illegal mining networks are frequently linked to organised crime structures, illicit financial flows, corruption and violence, creating a complex operating environment that enforcement interventions alone struggle to address. The increasing sophistication of these activities positions illegal mining not only as a law enforcement challenge, but also as a broader economic, governance and investment risk.

Structural enablers – the abandoned mines legacy. South Africa's exceptional vulnerability to illegal mining is rooted in a significant structural legacy: approximately 6,000 derelict and ownerless mines, the majority abandoned before 1994 and prior to rehabilitation obligations introduced under the MPRDA of 2002.

These sites provide ready-made underground infrastructure that facilitates illegal mining activity, allowing miners to operate several kilometres underground for extended periods. Efforts to seal shafts have had limited success, as illegal operators often circumvent physical barriers, and resource constraints have slowed the pace of rehabilitation and closure efforts.

The economics of illegal mining. Illegal mining persists partly because of powerful socioeconomic drivers. High unemployment, poverty and limited economic opportunities create conditions that sustain participation in illegal mining activities, particularly where potential returns materially exceed formal employment opportunities. Organised criminal networks exploit these vulnerabilities, drawing participants into established underground supply chains. Demand-side drivers are explored further in a later section.

Commodity diversification. Illegal mining activity has expanded beyond its historical concentration in gold and diamonds. Copper theft linked to mining infrastructure has become increasingly significant, while illegal chrome and coal mining activity is expanding in several regions. Growing diversification reflects both changing commodity economics and expanding criminal opportunities across South Africa's mineral value chain.

Environmental and community consequences. Illegal mining imposes substantial environmental and social costs. Acid mine drainage, groundwater contamination and environmental degradation increasingly affect surrounding ecosystems, while communities near illegal operations often experience heightened criminal activity, insecurity and social disruption. Unlike regulated mining activity, illegal operations typically receive no environmental rehabilitation, amplifying long-term impacts.

Enforcement response. South Africa has intensified enforcement efforts in response to illegal mining, including dedicated operations, increased policing resources and greater coordination across government institutions. Recent interventions have focused on mine closures, arrests and prosecutions, legislative measures and the strengthening of enforcement capacity.

However, illegal mining activity remains persistent despite these interventions, reflecting the structural drivers underpinning the problem – including abandoned mine infrastructure, organised criminal networks, socioeconomic pressures and illicit cross-border supply chains. The challenge increasingly highlights the limits of enforcement-led responses in the absence of broader structural and preventative interventions.

Why this matters. Illegal mining is not simply a law enforcement challenge – it is a significant economic, governance and investment risk. It undermines one of South Africa's most strategically important productive sectors, fuels organised criminal activity and illicit financial flows, imposes substantial environmental and social costs, and contributes to investment uncertainty. Addressing the challenge requires coordinated action across government, industry, communities and international partners, alongside measures that address the structural conditions enabling illegal mining to persist.

STRUCTURE AND DRIVERS OF ILLICIT MINING

Forms of illicit mining and minerals trade in South Africa: ranked assessment

Illicit activity in SA's mining sector spans the full value chain from extraction through processing, trading and export, with large-scale organised criminal activity co-existing alongside subsistence-level informal mining. Unlike most other illicit trade categories, the primary illicit activity occurs at the point of extraction rather than at import or distribution, making border-level enforcement structurally insufficient as a primary response.

RANK	FORMS	SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Illegal extraction – gold and precious metals (zama zama operations)**	**Highest – dominant channel**	The most prevalent and economically significant form of illegal mining in South Africa involves extracting gold and other precious metals. Approximately 30,000 illegal miners are estimated to operate across South Africa's roughly 6,000 abandoned mine shafts, with activity increasingly extending into licensed and operational mining areas. The DMRE estimates that illegal mining may account for up to 30% of South Africa's gold production, with annual economic losses estimated at R60–70 billion. Operations are increasingly coordinated through organised and internationally connected criminal syndicates that exploit abandoned mining infrastructure, weak oversight and cross-border criminal networks. Despite intensified enforcement efforts, including Operation Vala Umgodi, which has resulted in over 15,000 arrests since December 2023, illegal mining activity remains persistent and deeply entrenched.
2	**Illicit export and trade in illegally mined precious metals**	**Highest – co-primary channel**	Illegally mined gold, chrome and PGMs are moved through a five-tier syndicate structure from underground extraction to international refineries, where counterfeit documentation establishes their legal origin and the product enters the formal global supply chain. False declarations of origin or value, undervaluation and misrepresentation are systematically used at the export stage. UNICRI (2016) documents the use of front companies, licensed scrap metal exporters and fraudulent customs codes to move product. Once refined offshore, the illegal origin is effectively laundered and untraceable. Mirror trade analysis for gold (HS 7108) reveals persistent gaps between SA export records and partner-country import records, consistent with systematic under-declaration.
3	**Product theft from operating mines**	**High**	Illegal mining syndicates operate not only within abandoned mines but also target operating mining infrastructure and high-value materials, including gold-bearing concentrates, PGMs and copper. Theft increasingly affects operational continuity, raises security costs and creates additional production and financial pressures for mining companies. Sibanye-Stillwater recorded 1,720 copper-related incidents in 2024, resulting in R53.4 million in direct financial losses. Insider facilitation through bribery and coercion further complicates risk management and enforcement efforts. The impact is increasingly visible across the sector. AngloGold Ashanti, Harmony Gold, Pan African Resources and Sibanye-Stillwater have all reported material operational impacts linked to illegal mining and associated criminal activity. Harmony Gold invested R650 million in security measures in 2024 alone, while Minerals Council member companies collectively increased annual security expenditure by at least R2.5 billion.
4	**Illegal extraction – copper, chrome and coal**	**High and growing**	Illegal mining and associated criminal activity are increasingly expanding beyond traditional gold extraction. Illegal chrome mining has been reported in North West and Limpopo, while illegal coal mining activity is growing in Mpumalanga. Copper theft from mining, transport and energy infrastructure remains pervasive, disrupting critical infrastructure and increasing economic costs. Sibanye recorded a 241% increase in copper-related incidents in Q1 2024. The trend suggests that criminal networks are increasingly diversifying their activities in response to commodity price dynamics, infrastructure vulnerabilities and evolving enforcement pressure.
5	**Illegal extraction – diamonds**	**Moderate**	Continues in multiple areas despite partial formalisation in Kimberley. Operation Vala Umgodi has recovered 7,130 uncut diamonds worth over $1.7 million since December 2023.
6	**VAT fraud on second-hand precious metals**	**Moderate**	Jewellery and gold coins smelted with illegally acquired raw gold enable fraudulent notional input VAT deductions when resold into the formal supply chain, laundering illegal proceeds into the tax system. Partially addressed through legislative amendment but remains an active fiscal fraud vector.
7	**Money laundering of illegal mining proceeds**	**Moderate**	Proceeds laundered through front companies, falsified export documentation, offshore accounts and international refineries. Once the product enters a refinery with clean documentation, its illegal origin is untraceable – the most sophisticated and difficult-to-disrupt mechanism in the chain.

Note: Ranking is indicative rather than definitive, reflecting an analytical assessment based on Minerals Council evidence, DMRE, Operation Vala Umgodi operational reports, PwC SA Mine (2025), UNICRI (2016) and own analysis.

Key Illicit Consumer Behaviour and Demand-Side Drivers

The demand side of illegal mining operates through two distinct mechanisms: the labour supply that feeds extraction operations, and downstream demand for illegally sourced minerals from traders, refiners and manufacturers who knowingly or unknowingly absorb illicit product.

DRIVER	DESCRIPTION	IMPACT
Unemployment and poverty as labour supply drivers	South Africa's unemployment rate of 32.9% – among the highest globally – combined with declining formal employment opportunities, creates a persistent labour supply for illegal mining activity. Large earnings differentials between legal and illegal mining increase vulnerability to recruitment by organised criminal networks, particularly in mining communities with limited alternative income opportunities. Cross-border socioeconomic pressures further reinforce labour supply dynamics.	**Highest**
High gold and commodity prices	Rising commodity prices directly strengthen incentives for illegal mining. Gold prices reached record highs in 2025, while stronger prices across minerals such as copper, PGM, nickel and chrome have expanded incentives beyond traditional gold extraction. Higher commodity prices increase returns from illegal extraction and lower the threshold at which illegal mining becomes financially viable.	**Highest**
Downstream demand from traders and refiners	Illegal gold and mineral products continue to find ready markets through traders, refiners and downstream supply chains. Weak due diligence processes and falsified documentation enable illegally sourced minerals to enter formal markets. At the same time, concentrated global refining capacity creates important channels through which illicit product is absorbed and laundered.	**Highest**
Organised criminal demand aggregation	Organised criminal syndicates do not merely respond to demand – they actively create and sustain it. Criminal networks provide financing, equipment, logistics and guaranteed market access, transforming opportunistic extraction into structured criminal supply chains and reducing barriers to participation.	**High**
Weak supply chain due diligence by legitimate businesses	Weak supplier verification, limited transparency around beneficial ownership and inadequate due diligence practices create opportunities for illegally sourced minerals to enter legitimate supply chains. Limited accountability increases the risk that illicit product is absorbed into formal markets.	**High**
Community vulnerability and lack of alternatives	Economic hardship and limited alternative livelihoods increase vulnerability to recruitment into illegal mining networks. Organised criminal groups exploit these conditions, creating entrenched dependency cycles that enforcement interventions alone struggle to disrupt.	**High**
Limited awareness of downstream harms	Communities, downstream buyers and end consumers of manufactured goods are largely unaware that the gold in jewellery, the cobalt in batteries or the copper in electronics may originate from illegal mining operations that fund armed conflict, environmental destruction and human rights abuses. This lack of awareness reduces resistance to purchasing from non-compliant supply chains and weakens the market signal that would otherwise drive demand toward responsibly sourced materials.	**Moderate**
Corruption enabling demand at institutional level	Corrupt officials – at local, regional and national levels – accept bribes to overlook illegal operations, issue fraudulent mining licences or concessions, and provide protection from legal consequences. This institutional demand for corrupt payments creates a symbiotic relationship between illegal mining networks and state actors, generating a reliable revenue stream for officials while providing criminal networks with the protection they need to operate at scale.	**Moderate–High**

Supply Side Enablers of Illicit Mining and Minerals Trade

Supply-side enablers are organised into three tiers. Tier 1 covers primary structural drivers across three themes: extraction and entry vulnerabilities, enforcement failure, and market structure. Tiers 2 and 3 are compounding factors that amplify Tier 1 conditions. Together, they create a high-return, low-risk operating environment for illegal mining operators.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
6,000 abandoned mines – the structural extraction opportunity Approximately 6,000 derelict and ownerless mines, most abandoned before 1994, provide ready-made infrastructure for illegal extraction. Concentrated across major mineral belts, these sites often contain residual deposits that remain commercially attractive. Rehabilitation and closure efforts have progressed slowly relative to the scale of the challenge, while the number and geographic spread of abandoned mines constrain monitoring and enforcement capacity.	**Failure to rehabilitate and close abandoned mines – the unresolved structural challenge** Responsibility for abandoned mine rehabilitation remains significant relative to available resources. Additional funding allocations and closure initiatives represent progress, but implementation remains slow relative to the scale of legacy infrastructure. The inability to close abandoned mines at scale remains one of the most significant institutional enablers of illegal mining in South Africa.
High commodity prices – the structural profit driver Rising commodity prices strengthen incentives for illegal mining by increasing extraction returns and attracting more sophisticated criminal participation. Gold price increases have historically been associated with increased illegal mining activity, while higher prices for minerals such as copper, nickel and chrome have expanded incentives beyond traditional gold extraction.	**Weak and fragmented enforcement capacity** Enforcement responsibilities are distributed across multiple institutions with overlapping mandates and coordination challenges. While enforcement initiatives such as Operation Vala Umgodi represent important interventions, they often struggle to disrupt broader criminal networks and underlying enabling conditions.
Five-tier syndicate structure – organised criminal infrastructure Illegal mining operates through a well-organised five-tier system that provides financing, equipment, market access, logistics and international distribution. This structure transforms opportunistic extraction into an industrial-scale operation with its own supply chain, security apparatus and laundering mechanism. The syndicate's ability to guarantee the purchase of extracted product at a predictable price makes participation rational even for Tier 1 workers facing extreme personal risk. Criminal networks are well-capitalised, agile and capable of rapidly adapting to enforcement pressure.	**Corruption within enforcement and political structures** Corrupt officials at local, regional and national levels accept bribes to overlook illegal operations, issue fraudulent mining licences and provide protection from prosecution. The Blyde River Task Force documents syndicate reach into senior political and law enforcement structures. Corruption within the institutions responsible for enforcement represents a fundamental governance vulnerability that operational interventions alone cannot address.
Tier 2 – Amplifying and Enabling Factors	
Infiltration of formal mining infrastructure Illegal mining activity is increasingly extending beyond abandoned sites into licensed and operational mining environments. Insider facilitation, coercion and access to infrastructure create additional enforcement challenges while increasing operational and security costs for legitimate operators.	**Legislative and prosecution gaps** Industry stakeholders have identified weaknesses in legislation, prosecution frameworks and enforcement tools as constraints on effectively addressing illegal mining. Ongoing regulatory reforms seek to strengthen deterrence and improve enforcement capability, although implementation remains ongoing.
Community vulnerability and local ecosystem dependence Economic hardship and limited alternative livelihood opportunities increase vulnerability to recruitment into illegal mining networks. Organised criminal groups exploit these conditions, creating dependency cycles that enforcement interventions alone struggle to disrupt.	**Weak traceability and chain-of-custody systems** Weaknesses in traceability systems create opportunities for illegally sourced minerals to enter legitimate trading channels. Existing mechanisms represent progress but remain insufficient to provide comprehensive supply chain visibility.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 3 – Market-Level & External Factors	
International refinery demand and laundering pathways Global refining hubs provide important market access channels through which illegally sourced minerals can enter formal supply chains. Once illegally sourced material is integrated into downstream processing channels, tracing its origin becomes significantly more difficult.	**Traceability and forensic capacity constraints** Limited forensic and monitoring capabilities constrain detection, enforcement and prosecution efforts. Greater investment in traceability systems and technical capability may strengthen supply chain transparency and the effectiveness of enforcement.
South Africa's regional hub role and cross-border dynamics South Africa's transport, financial and commercial infrastructure creates regional connectivity that organised criminal networks can exploit. Cross-border dynamics reinforce the challenge, requiring greater regional cooperation alongside domestic interventions.	**Limited real-time monitoring capability** The absence of comprehensive end-to-end mineral-tracking systems limits the ability to identify anomalies across extraction, processing and export stages. Strengthening digital traceability mechanisms may improve supply chain visibility and regulatory oversight.

Sources: Minerals Council South Africa; PwC SA Mine (2025); UNICRI (2016); Operation Vala Umgodi operational reports; DMRE; Blyde River Task Force; De Wet du Toit interview, BizNews April 2026; Minister Mantashe SAHRC inquiry February 2026; own analysis.

Key insight: Illegal mining persists because structural extraction opportunities, institutional weaknesses and organised criminal capability combine to create a high-return, relatively low-risk operating environment.

The Illicit Mining Supply Chain

*There is no clear boundary between legal and illegal supply chains for precious metals and minerals. Illegally sourced materials frequently enter the same channels as legitimately sourced goods – what UNODC describes as the "**(il)legal supply chain**". This co-mingling is a defining structural feature of illegal mining globally and is particularly acute in SA, where organised syndicate structures are designed to integrate illegally extracted material into formal markets at the earliest possible stage, making origin tracing progressively more difficult further downstream.*

SYNTHESIS

South Africa's illegal mining supply chain is distinctive in that the primary illicit activity – extraction – occurs largely within the country's borders, while the primary laundering mechanisms increasingly sit outside them.

This creates a fundamental enforcement asymmetry:

- South Africa can disrupt Tiers 1 and 2 through domestic enforcement interventions but cannot unilaterally address the international intermediary structures, refineries and financial channels through which illegal origin becomes obscured, and proceeds are laundered.
- Effective disruption, therefore, requires simultaneous domestic action across Tiers 3–5 – focused on financial, corporate and export mechanisms – alongside international cooperation targeting refining channels, traceability systems and illicit financial flows.
- Enforcement focused exclusively on underground workers addresses only the most replaceable component of a sophisticated transnational criminal system.

THREE DISTINCT ILLICIT FLOWS OPERATE WITHIN AND ALONGSIDE THE LEGITIMATE MINING VALUE CHAIN

FLOW 1

ILLEGAL EXTRACTION

ZAMA ZAMA OPERATIONS

UNDERGROUND EXTRACTION → SURFACE COLLECTION → REGIONAL CONSOLIDATION → NATIONAL DISTRIBUTION → EXPORT

≈ EXTRACTION — PRIMARY ENFORCEMENT INTERVENTION POINT

Key locations: Witwatersrand gold belt • Platinum belt • Diamond fields • Abandoned mine shafts across Gauteng, North West, Free State, Mpumalanga, Northern Cape.

A five-tier syndicate structure governs illegal mining in South Africa.

Tier 1 – Underground extraction

Underground workers conduct physical extraction activities. Many are undocumented foreign nationals – predominantly from Mozambique, Zimbabwe and Lesotho – including individuals with prior mining experience and operational knowledge. Workers often operate in hazardous conditions using rudimentary extraction methods, including the use of chemical substances such as mercury for gold recovery. This tier remains highly replaceable, limiting the long-term disruption impact of arrests alone.

Tier 2 – Surface coordination and logistical support

Surface-level operators coordinate underground activities and provide equipment, supplies and logistical support. Secondary informal economic activity has developed around these operations, embedding surrounding communities more deeply into the illegal mining ecosystem.

ENFORCEMENT IMPLICATION:

Law enforcement operations, including Operation Vala Umgodi, primarily target Tiers 1 and 2.

While operationally necessary, these tiers represent the most replaceable elements of the syndicate structure.

Sustainable disruption requires simultaneous intervention across Tiers 3–5.

Tier 3 – Regional aggregation and formal market entry

Regional bulk buyers consolidate product from multiple operations and prepare material for onward distribution. Some entities operate within legitimate trading frameworks, creating opportunities for illegally sourced material to enter formal supply chains and complicating enforcement efforts.

ENFORCEMENT IMPLICATION:

The use of legitimate Precious Metals Act permits by some Tier 3 operators can complicate enforcement where illegally sourced product enters formal trading channels alongside legitimate material. Stronger monitoring of permit holders, permit oversight and supply chain controls represent targeted intervention opportunities to strengthen supply chain integrity.

Tier 4 – National distribution and export channels

National and international distribution networks facilitate the movement of illegally sourced material toward export markets through a combination of formal corporate structures, intermediaries and export channels. False declarations, undervaluation and documentation misrepresentation may be used to obscure origin and facilitate movement through trade channels. Material is consolidated and prepared for onward distribution, increasingly integrating illegally sourced product into broader commercial systems.

ENFORCEMENT IMPLICATION:

Tier 4 represents a critical domestic intervention point before the product leaves South Africa. Targeting financial flows, corporate structures and export documentation offers materially greater disruption potential than enforcement focused solely on underground extraction. SARS customs intelligence, financial intelligence capabilities and coordinated enforcement action remain particularly important at this stage.

Channel 1: Licensed trading & export entities

Used to facilitate the movement of illegally sourced precious metals through false descriptions, undervaluation or documentation irregularities.

- Customs code fraud – high-value disruption target

Channel 2: Courier networks

Small high-value parcels of semi-refined precious metals are exported via air as samples or personal effects.

- Low detection rate – parcel-level enforcement gap

Channel 3: Bulk export channels

Larger shipment volumes may integrate illicit product into broader commercial trade flows.

- Supply chain monitoring and traceability challenge

FLOW 1

TIER 5 INTERNATIONAL ENDPOINT

Tier 5 — International Refining & Laundering Endpoint OUTSIDE SA JURISDICTION

International intermediaries and overseas refineries represent the final stage through which illegally sourced minerals enter formal global markets outside South Africa's direct jurisdiction.

Documentation irregularities, intermediary structures and jurisdictional complexity can obscure origin and complicate enforcement efforts.

Once material enters downstream refining channels, establishing its original source becomes increasingly difficult, particularly after refining and processing. Corporate structures, cross-border transactions and differing regulatory frameworks further constrain domestic enforcement capability.

ENFORCEMENT IMPLICATION

Tier 5 cannot be addressed through domestic South African enforcement alone. ECOSOC Resolution 2013/38 — tabled by South Africa and adopted in 2013 — mandated UNICRI to develop an international strategy to address this dimension of minerals crime.

Stronger due diligence at international refineries, bilateral intelligence sharing, financial intelligence cooperation and mine-to-refinery chain-of-custody systems represent key intervention opportunities.

The concentration of refining capacity in a limited number of jurisdictions — including Switzerland, the UAE, India and China — creates potential points for **high-impact international intervention**.

Channel 1
International intermediary companies

Receive product from SA exporters and facilitate onward movement through documentation and intermediary trade processes.

- *Outside SA jurisdiction — bilateral intelligence and regulatory cooperation are critical*

Channel 2
International refineries

Smelt and refine product — origin untraceable post-refining.

- *Primary global intervention point — strengthened due diligence and chain-of-custody requirements*

Channel 3
International financial flows

Cross-border financial structures and offshore accounts may facilitate the movement and concealment of illicit proceeds.

- *Financial intelligence — FIC / SARS / international FIU collaboration is critical*

Channel 4
Front and shell companies

Used at refining and export stages to disguise illegal trade and launder proceeds.

- *Beneficial ownership transparency and regulatory cooperation — intervention point*

FLOW 2

INTERNATIONAL LAUNDERING

Export from SA — *International intermediate company* — *International refinery* — **Formal global supply chain**

≈ INTERNATIONAL INTERMEDIARY AND REFINING STAGE — OUTSIDE SA JURISDICTION

Once illegally sourced material leaves South Africa, intermediary companies and international refining channels can facilitate integration into formal global supply chains. Cross-border documentation processes, jurisdictional complexity and downstream refining make origin tracing progressively more difficult.

Once material is refined, establishing the original source becomes substantially more challenging, making international refineries one of the most strategically important global intervention points.

ENFORCEMENT IMPLICATION

South Africa cannot address this dimension unilaterally. Bilateral intelligence sharing, stronger refinery due diligence requirements and mine-to-refinery traceability systems represent critical intervention mechanisms.

ECOSOC Resolution 2013/38 mandated UNICRI to develop an international strategy to address this dimension of mineral crime.

≈ MONEY LAUNDERING — FINANCIAL FLOWS

Illicit proceeds may move through offshore accounts, complex ownership structures and international financial networks, complicating detection and recovery efforts.

ENFORCEMENT IMPLICATION

Financial intelligence capability represents one of the highest-leverage opportunities for intervention. Cooperation between SARS, the Financial Intelligence Centre, the NPA and international intelligence partners remains critical.

FLOW 3

PRODUCT THEFT FROM OPERATING MINES

Operating mine — *Internal theft/coercion* — *Surface consolidation* — *Downstream distribution* — **Export**

≈ OPERATING MINE — INTERNAL THEFT AND INFILTRATION POINT

Criminal syndicates target not only abandoned mining infrastructure but also operating and licensed mines, where theft of gold-bearing concentrates, PGMs, copper and other materials creates additional operational and financial pressures. Insider facilitation through bribery, coercion and unauthorised access increases vulnerability and complicates risk management.

Rising criminal activity has contributed to materially higher security expenditure across the sector, with Minerals Council members collectively increasing annual security spending by at least **R2.5 billion**.

ENFORCEMENT IMPLICATION

Addressing theft from operating mines requires a combination of: **stronger internal controls**, technology-enabled monitoring, and coordinated enforcement interventions.

Channel 1
Insider facilitation

Bribery or coercion of mine employees to facilitate access and product theft.

- *Internal controls and employee protection mechanisms are essential*

Channel 2
Criminal infiltration of operational sites

Unauthorised access and organised criminal activity increase operational and security risks.

- *Security capability and coordinated enforcement response*

Channel 3
Infrastructure-linked theft

Copper and infrastructure-related theft creates wider operational and economic disruption.

- *Monitoring and infrastructure protection — intervention point*

Sources: Minerals Council South Africa; Chamber of Mines Integrated Annual Review (2016); UNICRI (2016); Coetzee and Horn (2006) as cited in UNICRI (2016); UNODC Minerals Crime Global Analysis (2025); Operation Vala Umgodi operational reports; own analysis.

SCALE OF ILLICIT MINING TRADE IN SA – PENETRATION RATE

Methodological Approach

Direct measurement of illegal mining is inherently difficult because the activity is designed to evade detection and occurs in remote or underground locations outside formal monitoring systems. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the scale of illegal mining in South Africa using five complementary methods:

APPROACH	WHAT IT MEASURES	DATA SOURCE	PURPOSE
4. Mirror trade analysis	Under-declaration and misdeclaration of precious metals exports across relevant HS codes	ITC TradeMap / UN Comtrade (HS 7108 – gold; HS 7110 – platinum group metals)	Supporting quantitative indicator of illicit export flows via false declarations, undervaluation and origin misrepresentation.
5. Ministerial and regulatory fiscal loss estimates	Direct government estimates of annual economic losses from illegal mining	Minister of Mineral and Petroleum Resources; DMRE; PwC SA Mine (2025)	Primary quantitative inputs provide the directional basis for the penetration estimate. Multiple official and industry sources provide estimates across different time periods and using different methodologies.
6. SARS enforcement and seizure data	Volume and value of precious metals and stones seized at border posts and in domestic enforcement operations	SARS annual reports; SARS enforcement statements; Operation Vala Umgodi operational reports	Corroborating enforcement signal. SARS annual reports provide year-on-year seizure data for precious metals and stones across border posts and domestic operations.
7. Supply-Use Table benchmark	Non-observed supply and consumption activity in relevant mining product categories (P8 – metal ores; P10 – other minerals, including precious and semi-precious stones)	Stats SA Supply-Use Tables	Cross-check of non-observed activity in the national accounts. Unlike the fuels sector, where NOE supply is zero, mining SUTs may capture some non-observed extraction activity in relevant product categories.
8. International benchmarking	Plausible loss ranges observed in comparable illegal mining jurisdictions	UNODC Minerals Crime Global Analysis (2025); INTERPOL/UNEP estimates; GFI illicit financial flows data	Plausibility check and directional reference against comparable markets. South Africa's estimated range is assessed against international benchmarks from jurisdictions with documented illegal mining activity. Used as a contextual reference rather than a direct comparator.

Mirror trade analysis and the SUT benchmark are primarily used to assess illicit export flows and non-observed production, respectively, while the ministerial fiscal loss estimates and SARS enforcement data provide direct, institutionally sourced evidence on scale. Together, these methods distinguish between illicit extraction – reflected in production and fiscal loss indicators – and illicit export flows, reflected in trade discrepancies and seizure data.

Unlike sectors where illicit activity creates measurable consumption or sales anomalies, illegal mining occurs primarily at the extraction stage, limiting direct measurement opportunities and increasing reliance on fiscal loss estimates, enforcement signals and triangulation methods.

Estimates, therefore, rely more heavily on top-down fiscal loss modelling and enforcement data than on bottom-up volume anomaly analysis. The wide range in available estimates reflects genuine methodological differences rather than contradictory findings, and the triangulation framework is designed to identify the most defensible central range rather than resolve this spread.

The final penetration estimate reflects convergence across all five methods and should be interpreted as an evidence-based directional estimate rather than a precise measurement.

Estimating the Mining Market Size

Statistics South Africa's *Mining: Production and Sales* report (P2041) is used as the primary market size denominator for this analysis. Two denominators are applied, consistent with the approach used elsewhere in this report:

- **Narrow denominator** – gold, PGMs and copper combined represent the commodity scope most directly relevant to illegal mining activity in South Africa. Gold and platinum group metals remain the primary targets of illegal extraction, while copper-related criminal activity has become an increasingly important secondary component. This combined series provides a denominator aligned to the commodity exposure being measured.
- **Broad denominator** – total mining sales are used to assess sector-wide fiscal impacts associated with illegal mining, drawn from the same P2041 dataset.

An important analytical feature of the P2041 series is substantial price-driven volatility, particularly within PGMs. PGM sales peaked at R346.5 billion in 2021 – driven largely by rhodium and palladium price surges – before normalising to R173.1 billion in 2024. Penetration rates when expressed relative to annual market values may therefore reflect commodity price movements rather than underlying changes in illegal mining activity. To smooth this volatility, the average 2019–2025 denominator is used as the primary reference measure, consistent with the averaging methodology applied across other sectors in this report.

Table 42: Precious Metals, Copper and Total Mining Market Size – South Africa

YEAR	COPPER	PGMs	GOLD	GOLD + PGMs + COPPER	TOTAL MINING SALES	Y-O-Y (NARROW)
2018	R4.1bn	R104.9bn	R69.7bn	R178.7bn	R498.5bn	–
2019	R3.2bn	R136.0bn	R76.6bn	R215.8bn	R552.9bn	+20.8%
2020	R3.5bn	R190.4bn	R86.4bn	R280.3bn	R613.2bn	+29.9%
2021	R5.3bn	R346.5bn	R102.2bn	R454.0bn	R857.3bn	+61.9%
2022	R5.1bn	R279.4bn	R89.6bn	R374.1bn	R883.7bn	−17.6%
2023	R6.3bn	R196.1bn	R114.4bn	R316.8bn	R794.6bn	−15.3%
2024	R7.1bn	R173.1bn	R142.6bn	R322.8bn	R802.7bn	+1.9%
2025	R7.7bn	R206.7bn	R185.0bn	R399.5bn	R861.0bn	+23.8%
Avg 2019–2025	R5.7bn	R218.3bn	R113.8bn	R337.9bn	R766.5bn	–

Source: Statistics South Africa, Mining: Production and Sales (P2041)

Two analytical observations are noteworthy:

- **Gold sales growth reflects price rather than production trends.** Gold sales increased from R76.6 billion in 2019 to R185.0 billion in 2025 – a 141% increase over six years – despite South Africa's long-term structural decline in gold production volumes. Penetration rates, expressed as a share of gold sales, may therefore moderate over time even where the absolute scale of illegal mining remains stable or increases.
- **PGM volatility materially influences the narrow denominator.** PGMs account for the largest component of the commodity-specific denominator in most years, making PGM price cycles the primary driver of denominator volatility. This further supports the use of multi-year averaging rather than relying on any single-year reference point.

The narrow denominator (gold + PGMs + copper) averaged R337.9 billion between 2019 and 2025 – approximately 44% of total average mining sales of R766.5 billion over the same period. This concentration ratio is analytically important: illegal mining activity accounts for less than half of the sector's sales value, meaning sector-wide penetration measures can materially understate commodity-specific exposure.

Both denominators are therefore retained – the narrow denominator for commodity-level penetration estimates and the broad denominator for sector-wide fiscal impact calculations.

The average 2019–2025 narrow denominator (R337.9 billion) is used as the primary reference measure, supplemented by the current-year denominator (R399.5 billion) for contemporaneous penetration estimates.

Method 1: Mirror Trade Analysis[32]

Conceptual basis

Mirror trade analysis for South Africa's mining sector differs fundamentally from most other sectors in this report. Some sectors are primarily affected by illicit imports, where mirror trade gaps capture under-declaration of inbound flows. Mining differs because South Africa is primarily an exporter of illegally sourced products, meaning the relevant discrepancy occurs at the export border rather than the import border. Tier 4 operators may under-declare the value or quantity of precious metals and minerals leaving the country. The mirror trade gap, therefore, compares South Africa's recorded exports to partner countries against those countries' recorded imports from South Africa. A positive gap – where partner countries record receiving more than South Africa records sending – is consistent with export under-declaration, undervaluation or other trade reporting discrepancies. International mirror trade analysis conventionally compares free-on-board (FOB) exports with cost, insurance and freight (CIF) imports. South Africa, however, reports both imports and exports on an FOB basis (UNSD, Question 7.04). This removes the standard freight and insurance valuation effect, making observed mirror trade discrepancies potentially more informative of underlying trade frictions, reporting inconsistencies or possible misreporting.[33]

HS code assessment and selection

Seven HS codes were assessed for suitability as mirror trade indicators. The assessment and outcome for each is summarised below:

Table 43: HS Code Assessment and Selection – SA Mining Mirror Trade Analysis

HS CODE	COMMODITY	OUTCOME	REASON
7108	Gold – unwrought, semi-manufactured	Excluded	Approximately 99.9% of South Africa's recorded gold exports are classified as "Area Not Elsewhere Specified", preventing bilateral mirror trade assessment.
7110	Platinum group metals	Primary	Full destination reporting; three clean corridors covering 78% of exports.
2610	Chromium ores and concentrates	Primary	China corridor with Mozambique transit adjustment; consistently positive mirror gap.
7112	Waste and scrap of precious metals	Corroborating only	Belgium and Germany corridor supports Tier 4 misclassification mechanisms, but is not additive to HS7110 because of product overlap.

[32] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[33] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis, therefore, compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

HS CODE	COMMODITY	OUTCOME	REASON
7102	Diamonds	Excluded	South Africa–Botswana integrated supply chain limits reliable origin attribution.
7404	Copper waste and scrap	Excluded	Approximately $28 million annually – immaterial relative to overall penetration estimates.
2603	Copper ores & concentrates	Excluded	Approximately $219 million annually – limited scale and declining trend.

Gold destination non-reporting limits the ability to quantify export under-declaration directly through mirror trade analysis, reinforcing the importance of fiscal loss estimates and enforcement indicators as primary penetration measures for this sector. The limitation is also consistent with broader opacity challenges associated with international gold trade reporting.

Mirror trade analysis and fiscal loss modelling should therefore be interpreted as complementary rather than competing methodologies. Mirror trade discrepancies provide supporting evidence of illicit export mechanisms, while fiscal loss estimates and enforcement indicators remain the primary scale indicators for estimating illegal mining penetration.

HS 7110 – Platinum Group Metals

South Africa's PGM exports are highly concentrated among a small number of identifiable partner countries, enabling robust bilateral mirror trade analysis. Three corridors are assessed – the United States, Japan and the United Kingdom – which together account for approximately 78% of South Africa's recorded PGM exports over 2019–2025. Germany and China account for a further 12% of recorded exports; bilateral data are available but not separately assessed, given the strength of the three-corridor coverage.

Table 44: SA PGM Exports vs Partner Imports – HS 7110, USA Corridor

YEAR	SA EXPORTS TO USA	USA IMPORTS FROM SA	GAP (USD)	GAP (ZAR)
2019	$2.0bn	$2.3bn	$0.2bn	R3.0bn
2020	$3.3bn	$4.1bn	$0.8bn	R13.9bn
2021	$6.9bn	$7.7bn	$0.8bn	R11.8bn
2022	$4.7bn	$5.1bn	$0.4bn	R6.9bn
2023	$2.7bn	$3.6bn	$0.9bn	R16.6bn
2024	$2.7bn	$3.7bn	$1.0bn	R18.1bn
2025	$3.7bn	$5.2bn	$1.5bn	R27.4bn
Total 2019–2025	$25.9bn	$31.6bn	$5.7bn	R98.9bn
Annual average			$0.8bn	R14.1bn

Source: ITC TradeMap; UN Comtrade

Table 45: SA PGM Exports vs Partner Imports – HS 7110, Japan Corridor

YEAR	SA EXPORTS TO JAPAN	JAPAN IMPORTS FROM SA	GAP (USD)	GAP (ZAR)
2019	$2.3bn	$2.8bn	$0.5bn	R7.5bn
2020	$2.3bn	$4.0bn	$1.7bn	R28.6bn
2021	$6.0bn	$7.7bn	$1.7bn	R24.9bn
2022	$6.0bn	$6.9bn	$0.9bn	R14.0bn
2023	$3.4bn	$4.1bn	$0.7bn	R13.5bn
2024	$2.8bn	$3.3bn	$0.5bn	R9.5bn
2025	$3.4bn	$4.1bn	$0.7bn	R12.5bn
Total 2019–2025	$26.2bn	$32.9bn	$6.7bn	R110.4bn
Annual average			$1.0bn	R15.8bn

Source: ITC TradeMap; UN Comtrade

Note: The 2020 and 2021 peaks reflect the rhodium and palladium price surge over that period rather than a structural change in under-declaration behaviour

Table 46: SA PGM Exports vs Partner Imports – HS 7110, UK Corridor

YEAR	SA EXPORTS TO UK	UK IMPORTS FROM SA	GAP (USD)	GAP (ZAR)
2019	$2.1bn	$2.3bn	$0.2bn	R2.6bn
2020	$2.0bn	$2.2bn	$0.2bn	R2.7bn
2021	$5.1bn	$4.9bn	−$0.2bn	−R2.5bn
2022	$3.0bn	$3.1bn	$0.1bn	R1.5bn
2023	$2.5bn	$2.8bn	$0.3bn	R5.8bn
2024	$2.0bn	$2.1bn	$0.1bn	R2.0bn
2025	$1.7bn	$2.8bn	$1.1bn	R18.9bn
Total 2019–2025	$18.4bn	$20.2bn	$1.7bn	R31.0bn
Annual average			$0.2bn	R4.4bn

Source: ITC TradeMap; UN Comtrade

Note: The negative gap in 2021 reflects the United Kingdom's role as a platinum and palladium trading hub. Settlement and trading dynamics can create timing mismatches between South African export recording and UK import recording. Negative values are retained rather than set to zero to avoid upward bias.

Table 47: Three-Corridor Combined Results – HS 7110 PGMs (R bn)

CORRIDOR	TOTAL GAP 2019–2025	ANNUAL AVG GAP	SA EXPORT SHARE	SHARE OF COMBINED GAP
USA	R98.9bn	R14.1bn	~28%	40%
Japan	R110.4bn	R15.8bn	~27%	45%
UK	R31.0bn	R4.4bn	~23%	13%
Three corridors combined	R240.3bn	R34.3bn	~78%	100%

Source: ITC TradeMap; UN Comtrade

Noise discount

Mirror trade discrepancies can arise from legitimate trade frictions independently of illicit activity. The following factors are relevant to the PGM corridor analysis:

FACTOR	LIKELY EFFECT	ASSESSMENT FOR PGM ANALYSIS
Timing differences in export and import recording	Minor bilateral misalignment	Small effect – unlikely to explain persistent multi-year positive gaps across multiple corridors.
UK trading hub dynamics	Periodic negative gaps	Moderate – trading and settlement activity can create timing mismatches.
Classification differences within HS 7110	Minor sub-heading discrepancies	Moderate – platinum, palladium and rhodium may be classified differently across reporting jurisdictions.
Re-export routing	Can influence bilateral gap measurement	Low – re-export routing appears materially less important for PGMs than for more intermediated commodity supply chains.

These factors are unlikely to fully explain the magnitude of the observed discrepancies, but they do support a downward adjustment before mirror trade gaps are interpreted as indicators of illicit trade. A noise discount of 30–40% is therefore applied – consistent with the approach used elsewhere in this report and at the lower end of international adjustment ranges, given that PGM supply chains are generally more formally documented than many commodity sectors.

The consistency of positive gaps across the USA and Japan corridors – combined with only isolated negative observations in the UK corridor – supports application of the lower end of the adjustment range rather than the higher adjustment levels applied in sectors characterised by greater supply chain complexity.

Table 48: HS 7110 PGM Mirror Trade Penetration Matrix – Average Annual 2019–2025

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR†	ILLICIT PENETRATION RATE
PANEL A: USA CORRIDOR ONLY					
Raw gap	R14.1bn	–	R14.1bn	R337.9bn†	4.2%
30% noise discount	R14.1bn	−30%	R9.9bn	R337.9bn	2.9%
40% noise discount	R14.1bn	−40%	R8.5bn	R337.9bn	2.5%
PANEL B: THREE CORRIDORS COMBINED (78% OF EXPORTS)					
Raw gap	R34.3bn	–	R34.3bn	R337.9bn	10.2%
30% noise discount	R34.3bn	−30%	R24.0bn	R337.9bn	7.1%
40% noise discount	R34.3bn	−40%	R20.6bn	R337.9bn	6.1%
PANEL C: ALL CORRIDOR EXTRAPOLATION (THREE CORRIDORS = 78%)					
Raw gap extrapolated	R44.0bn	–	R44.0bn	R337.9bn	13.0%
30% noise discount	R44.0bn	−30%	R30.8bn	R337.9bn	9.1%
40% noise discount	R44.0bn	−40%	R26.4bn	R337.9bn	7.8%

† *Denominator: average narrow mining sales (gold + PGMs + copper) 2019–2025 (R337.9bn, Stats SA P2041).*

Panel B is used as the primary mirror-trade-derived estimate for PGMs. Applying a 30–40% noise discount to the three-corridor combined gap yields a central mirror-trade-derived penetration range of 6.1–7.1% of narrow mining sales (R20.6–24.0 billion annually). Panel B balances corridor coverage with reduced reliance on extrapolation assumptions.

Panel A is retained as a conservative single-corridor floor of 2.5–2.9%. Panel C provides an illustrative directional upper bound of 7.8–9.1%.

HS 7112 corroboration

The HS 7110 mirror trade gap is corroborated by a parallel signal in HS 7112 – waste and scrap of precious metals – which captures the specific misclassification mechanism used by Tier 4 operators and documented in UNICRI (2016) and the Chamber of Mines.

South Africa recorded exporting $1.3 billion to Belgium and Germany under HS 7112 over 2019–2025, while Belgium recorded receiving $5.1 billion and Germany $446 million – a combined gap averaging R8.2 billion annually before noise discount.

Belgium alone records receiving approximately four times as much as South Africa records sending, a ratio too large to be explained by legitimate trade frictions. This gap is not treated as additive to the HS 7110 estimate, given likely product overlap – some product recorded by Belgium and Germany as precious metal scrap imports from SA is likely the same gold and PGM product that SA exported under a falsified HS 7112 description, rather than the correct HS 7110. The HS 7112 signal is retained as qualitative corroboration that the Tier 4 misclassification mechanism is active and material.

HS 2610 – Chromium Ores and Concentrates

Chrome ore is a bulk mineral commodity exported primarily in raw or minimally processed form, making it potentially vulnerable to undervaluation mechanisms and trade mispricing risks. Bulk mineral commodities are particularly exposed due to the given pricing complexity, high export volumes and limited downstream processing prior to export.

Corridor selection and the Mozambique transit dynamic

South Africa's chrome exports are highly concentrated. China and Mozambique together account for approximately

78–89% of South Africa's recorded chrome exports over 2019–2025. China is the dominant end-market and South Africa's largest direct export destination, accounting for 48–61% of recorded chrome exports annually.

However, corridor selection is complicated by a structural anomaly in South Africa–Mozambique bilateral trade data.

South Africa records exporting $557 million to US$1.9 billion of chrome ore annually to Mozambique over 2019–2025, averaging approximately $1.1 billion per year. Mozambique records receiving virtually none, with recorded imports under HS 2610 totalling approximately $7,000 across the seven-year period.

Mozambique has limited chrome processing capacity, and chrome ore is not a major domestic consumption commodity. The most plausible explanation is therefore that significant volumes move through Maputo as a transit or transshipment point rather than entering Mozambican customs territory for domestic use. The product likely continues onward to final consumer markets – predominantly China – given observed trade patterns.

This transit structure means South Africa's bilateral China export figures may understate total South African-origin chrome flows reaching China.

Two analytical approaches are therefore presented:

- Unadjusted analysis – based solely on direct South Africa–China bilateral trade flows.
- Adjusted analysis – treating combined China-direct and Mozambique-transit exports as the effective corridor.

Table 49: SA Chrome Exports vs China Imports – HS 2610, Unadjusted

YEAR	SA EXPORTS TO CHINA	CHINA IMPORTS FROM SA	GAP (USD)	GAP (ZAR)	RATIO (CHINA/SA)
2019	$1.1bn	$2.0bn	$872m	R12.6bn	1.78x
2020	$936m	$1.6bn	$673m	R11.1bn	1.72x
2021	$970m	$1.9bn	$972m	R14.6bn	2.00x
2022	$1.2bn	$2.7bn	$1.5bn	R25.1bn	2.30x
2023	$1.9bn	$4.0bn	$2.1bn	R39.2bn	2.12x
2024	$2.2bn	$4.7bn	$2.5bn	R45.8bn	2.11x
2025	$2.7bn	$5.0bn	$2.3bn	R41.7bn	1.83x
Total 2019–2025	$11.1bn	$22.0bn	$10.9bn	R190.0bn	1.99x
Annual average	$1.6bn	$3.1bn	$1.6bn	**R27.1bn**	1.78x

Note: China consistently records importing materially more than South Africa records exporting, with ratios ranging from 1.72x to 2.30x across all seven years.

Table 50: SA Chrome Exports vs China Imports – HS 2610, Adjusted for Mozambique Transit

YEAR	SA DIRECT TO CHINA	SA VIA MOZ TRANSIT	COMBINED SA FLOW	CHINA IMPORTS FROM SA	ADJUSTED GAP (USD)	ADJUSTED GAP (ZAR)	RATIO
2019	$1.1bn	$557m	$1.7bn	$2.0bn	$315m	R4.5bn	1.19x
2020	$936m	$365m	$1.3bn	$1.6bn	$308m	R5.1bn	1.24x
2021	$970m	$629m	$1.6bn	$1.9bn	$343m	R5.1bn	1.21x
2022	$1.2bn	$988m	$2.2bn	$2.7bn	$542m	R8.9bn	1.25x
2023	$1.9bn	$1.6bn	$3.5bn	$4.0bn	$487m	R9.0bn	1.14x
2024	$2.2bn	$1.9bn	$4.1bn	$4.7bn	$608m	R11.1bn	1.15x
2025	$2.7bn	$1.3bn	$4.1bn	$5.0bn	$922m	R17.1bn	1.23x
Total 2019–2025	$11.1bn	$7.4bn	$18.5bn	$22.0bn	$3.5bn	R60.8bn	1.19x
Annual average					$504m	**R8.7bn**	

Note: All values rounded. Source: HS 2610, adjusted for Mozambique transit flows.

Ratios calculated as China imports ÷ combined SA flow. Added ratio column based on the adjusted combined SA flow – showing how materially the apparent discrepancy narrows once Mozambique transit is accounted for (1.14x–1.25x versus 1.72x–2.30x in the unadjusted view).

Table 51: HS 2610 Chrome Mirror Trade Penetration Matrix – Average Annual 2019–2025

METHOD	APPROACH	ANNUAL GAP	ADJUSTMENT	ADJUSTED ESTIMATE	DENOMINATOR†	ILLICIT PENETRATION RATE
PANEL A: UNADJUSTED CHINA DIRECT						
Raw gap	Unadjusted	R27.1bn	–	R27.1bn	R337.9bn	8.0%
40% noise discount	Unadjusted	R27.1bn	−40%	R16.3bn	R337.9bn	4.8%
50% noise discount	Unadjusted	R27.1bn	−50%	R13.6bn	R337.9bn	4.0%
PANEL B: ADJUSTED FOR MOZAMBIQUE TRANSIT						
Raw gap	Adjusted	R8.7bn	–	R8.7bn	R337.9bn	2.6%
40% noise discount	Adjusted	R8.7bn	−40%	R5.2bn	R337.9bn	1.5%
50% noise discount	Adjusted	R8.7bn	−50%	R4.4bn	R337.9bn	1.3%

† *Denominator: average narrow mining sales (gold + PGMs + copper) 2019–2025 (R337.9bn, Stats SA P2041).*

The adjusted estimate is used as the primary chrome mirror trade signal. Panel B balances corridor realism with reduced dependence on direct bilateral export assumptions and provides the more conservative estimate.

The unadjusted estimate is retained as an upper-bound reference. The true gap likely lies between the two estimates, as the adjusted approach assumes that Mozambique-transited material is fully reflected as South African-origin product within the Chinese import recording.

The widening gap observed under both approaches – increasing from approximately R4.5–12.6 billion in 2019 to R17.1–41.7 billion in 2025 – is directionally consistent with documented increases in illegal chrome mining activity over the same period.

Combined mirror trade summary

Table 52: Mining Mirror Trade Combined Summary – Average Annual 2019–2025

HS CODE	COMMODITY	CORRIDORS	ANNUAL AVG GAP (RAW)	PRIMARY ESTIMATE (ADJ.)	PENETRATION RATE	ROLE
7110	PGMs	USA + Japan + UK (78%)	R34.3bn	R20.6–24.3bn	6.1–7.1%	Primary
2610	Chrome	China adjusted (Mozambique transit)	R8.7bn	R4.4–5.2bn	1.3–1.5%	Primary – combined estimate contributor
7112	Precious metal scrap	Belgium + Germany (~100%)	R8.2bn	R5.3–6.2bn	1.6–1.8%	Corroborating – not additive
7108	Gold	–	Not quantifiable	–	–	Excluded – Area NES
Combined PGMs + Chrome			**R43.2bn**	**R25–29.5bn**	**7.4–8.7%**	**Primary – included in combined estimate**

Sources: ITC TradeMap; UN Comtrade; own calculations

Note: HS 7112 is excluded from the combined estimate to avoid double-counting with HS 7110. The combined estimate of 7.4–8.7% represents PGMs and chrome only and is treated as a lower-bound estimate given that gold – historically the most significant illegal mining commodity by value – cannot be quantified through mirror trade analysis because export destinations are not reported.

The mining mirror trade analysis yields a combined estimate of **7.4–8.7% of narrow mining sales** (R25.0–29.5 billion annually) after noise discounting, based on PGMs and chrome combined.

This estimate is treated as **conservative** rather than comprehensive for two reasons:

- **First**, gold – historically the most significant illegal mining commodity by value – cannot be quantified through mirror trade analysis because South Africa does not report gold export destinations.
- **Second**, the Mozambique-adjusted chrome framework intentionally biases toward more conservative estimates and may understate the true chrome trade gap.

The mirror trade estimate is therefore interpreted primarily as evidence of export-side trade anomalies rather than a standalone estimate of total illegal mining activity.

Mirror trade analysis is used as a supporting rather than primary input within the triangulation framework, with ministerial fiscal loss estimates and SARS enforcement indicators providing the primary quantitative basis for penetration assessment.

Method 2: Ministerial and Regulatory Fiscal Loss Estimates

Conceptual basis

Ministerial and regulatory fiscal loss estimates provide direct, institutionally sourced quantification of the economic scale of illegal mining, derived from government assessments, departmental compliance data and independent industry analysis. Unlike mirror trade analysis – which captures only the export under-declaration dimension and cannot quantify gold flows due to non-reporting at destination – this method draws on top-down estimates of total annual losses across commodities and illicit channels. It is treated as the primary quantitative input within the triangulation framework.

This method is particularly valuable because the primary illicit activity – unauthorised extraction – does not leave a directly measurable trace within domestic sales or consumption data. Unlike sectors where illicit trade creates observable anomalies within recorded supply chains, illegal mining occurs outside formal production recording systems. Estimation therefore relies more heavily on top-down fiscal impact modelling and enforcement indicators than on bottom-up volume anomaly analysis.

Ministerial and regulatory estimates – while methodologically heterogeneous and not directly comparable across sources – provide the most comprehensive available signal of total losses and are grounded in enforcement activity, production monitoring and fiscal impact assessment rather than indirect inference.

The trajectory of losses

The fiscal cost of illegal mining in South Africa has escalated dramatically over the past decade. Multiple official and industry sources document a consistent upward trajectory:

Table 53: Estimated Annual Losses from Illegal Mining – South Africa

YEAR	ESTIMATED ANNUAL LOSS	SOURCE	SCOPE
2017	R7bn	PwC SA Mine 2017	Operating mines – gold, metals and diamonds
2019	R14bn	DMRE	Gold only
2019	R49bn	Minister Mantashe, SAHRC inquiry, February 2026	All illegal mining
2024	R60bn	Minister Mantashe, January 2025 media briefing	All illegal mining
2024	R60–70bn	Mining Review Africa, January 2026	All illegal mining
Current	R70bn	Multiple sources[34]	Gold production alone

[34] *Source: Mining Review Africa: Illegal Mining: The dark heart of South Africa's mining industry; Illegal mining | South African Government*

These estimates are not directly comparable. They reflect different methodologies, commodity scopes and reference periods. Some capture gold only; others incorporate broader illegal mining activity, including chrome, copper, coal and diamonds. Some estimate fiscal losses to the state; others include broader economic impacts such as lost production, security expenditure and foregone investment.

Despite these differences, the directional trend is clear: annual losses have increased by approximately R53 billion – more than eightfold – over less than a decade.

PwC SA Mine (2025)[35] explicitly contextualises this evolution: "*While data sources vary, what is evident is that illegal mining is being tracked more closely, its impacts are better understood, and its footprint has expanded.*"

Both dynamics are relevant: illegal mining activity has expanded while measurement capabilities have improved.

➔ **Source 1: PwC SA Mine (2017 and 2025)**

PwC's *SA Mine* publication estimated illegal mining losses at more than **R7 billion annually in 2017**, covering activities on operating mines, including lost taxes and royalties. The 2025 edition notes an increase of approximately **R53 billion since 2017**, contextualising the Minister's January 2025 estimate of R60 billion as the current benchmark.

PwC further highlights growing private-sector costs associated with illegal mining.

Harmony Gold invested R650 million in security measures during 2024. Sibanye-Stillwater recorded 1,720 copper-related incidents and incurred R53.4 million in direct financial losses, while making 1,487 illegal mining-related arrests. Valterra Platinum has expanded drone surveillance across operations.

These corporate expenditures represent an additional economic burden that sits outside ministerial fiscal loss estimates and is not directly captured in penetration calculations.

➔ **Source 2: DMRE production share estimate**

The Department of Mineral Resources and Energy estimates that illegal mining accounts for up to **30%** of South Africa's gold production.

Applied to Stats SA's 2024 gold sales figure of R142.6 billion, this implies illegal gold extraction of approximately R42.8 billion on a production-value basis.

This estimate is particularly important because it provides an independent, commodity-specific signal separate from fiscal loss methodologies and aligns closely with the lower end of broader annual loss estimates once additional commodities and indirect costs are incorporated.

➔ **Source 3: Ministerial estimates – Mantashe (2025–2026)**

Minister of Mineral and Petroleum Resources Gwede Mantashe stated in January 2025 that illegal mining cost South Africa approximately **R60 billion** during 2024. At the South African Human Rights Commission National Inquiry in February 2026, he further indicated losses of R**49 billion** in 2019. The increase from R49 billion to R60 billion represents a nominal increase of approximately 22% over five years.

President Ramaphosa has similarly characterised illegal mining as a major economic threat, reinforcing high-level government recognition of its fiscal and developmental implications.

[35] *PWC: https://www.pwc.co.za/en/publications/sa-mine.html*

Source 4: Operation Vala Umgodi enforcement data

Operation Vala Umgodi – launched in December 2023 across seven provinces – provides the most recent enforcement-based corroboration of the scale of illegal mining. According to PwC SA Mine (2025), citing the National Integrated Plan on Illegal Mining, since December 2023, the operation has resulted in 16,645 cases opened and 20,367 arrests.

SAPS has been allocated R1.8 billion to deploy 4,302 personnel over 18 months. Four NATJOINTS work streams were established in March 2025, covering mine closures, arrests and prosecutions, legislative review and communications. The scale of the enforcement response – involving SAPS, SANDF, DMRE, NPA, State Security Agency and Border Management Authority – is itself indicative of the severity of the problem and consistent with the R60 billion annual loss estimate.

Source 5: Mining Review Africa (January 2026)

Mining Review Africa's January 2026 analysis places the current annual loss range at R60–70 billion, noting that losses represent nearly 1% of GDP. The article contextualises the investment dimension: the perceived governance gaps create a persistent risk premium, with projects needing to promise higher returns to attract funding – a systemic cost that extends beyond the direct fiscal loss to long-term capital allocation and continental investor confidence.

Penetration rate derivation

Expressing the ministerial estimates as penetration rates against the market size denominators:

Table 54: Method 2 Penetration Rate Derivation

SOURCE	ANNUAL LOSS	NARROW DENOMINATOR. (R337.9bn)	BROAD DENOMINATOR (R766.5bn)
PwC SA Mine 2017	R7bn	2.1%	0.9%
DMRE gold share (30% × 2024 gold sales)	~R42.8bn	12.7%*	5.6%
Mantashe 2019 – all illegal mining	R49bn	14.5%**	6.4%
Mantashe 2024 – all illegal mining	R60bn	17.8%**	7.8%
Upper range – current – gold only	R70bn	20.7%**	9.1%

Sources: Minister of Mineral and Petroleum Resources, January 2025 media briefing and SAHRC National Inquiry February 2026; PwC SA Mine 2017 and 2025; DMRE compliance programme estimates; Mining Review Africa January 2026; Stats SA P2041; own calculations.

** Gold-only numerator compared against gold + PGMs + copper denominator.*

*** Narrow penetration rates should be interpreted with caution, where numerator and denominator commodity scope differs. Broad denominator estimates provide the more directly comparable sector-wide measure.*

Methodological note on comparability

Three caveats apply.

- First, the loss estimates are broader than the market size denominators – they include not only lost production value but also lost taxes, royalties, security costs, foregone investment and broader economic multiplier effects, meaning the numerator and denominator are not measuring exactly the same thing.
- Second, the narrow denominator (gold + PGMs + copper) excludes chrome, coal and diamonds, making the narrow penetration rate an overstatement relative to its commodity scope.

- Third, estimates span different methodologies and time periods.

Despite these limitations, the convergence of multiple independent sources on a range of R49–70 billion for current annual losses is analytically robust as a directional signal.

The DMRE's production share estimate of 30% of gold production – methodologically independent of the fiscal loss estimates – provides an important cross-check: at 2024 gold prices, it implies illegal gold extraction of approximately R42.8 billion, consistent with the lower end of the ministerial range when non-gold commodities and broader economic costs are added. Note that this figure captures gold only, whereas the ministerial estimates of R49–70 billion cover all commodities and include broader fiscal and economic costs beyond production value alone; the comparison is therefore directional rather than precise. This is consistent with the lower end of the ministerial range when non-gold commodities and broader economic costs are added.

Interpretation

The ministerial and regulatory estimates converge on a central range of R49–70 billion in annual losses from illegal mining, reflecting all commodities and channels.

Expressed against the broad mining sales denominator, this implies a penetration rate of 6.4–9.1% of total mining sales – the more appropriate comparison given the all-commodity scope of the estimates.

The trajectory from R7 billion in 2017 to R60–70 billion by 2024–2025 provides strong evidence of the escalating scale of illegal mining in South Africa and provides the primary directional anchor for the penetration rate triangulation that follows.

Method 3: SARS Enforcement and Seizure Data

Conceptual Basis

Physical seizure data reflect goods intercepted through border controls and post-clearance enforcement activity and therefore capture only the detected portion of illicit trade. Estimating the implied total illicit market requires applying a detection-rate assumption to scale observed seizures to account for undetected flows:

Implied illicit market = Seizure value ÷ Detection rate

Empirical evidence from comparable middle-income economies suggests detection rates generally range between 2% and 10%, reflecting differences in enforcement capacity, inspection coverage and the sophistication of evasion mechanisms.

For precious metals and stones specifically, two countervailing forces influence the appropriate detection-rate assumption. On one hand, precious metals are high-value commodities subject to stronger border controls than most goods. SARS allocates dedicated enforcement resources to precious metals, and the SADPMR export-permitting framework imposes documentation requirements that may improve detection capabilities. On the other hand, the Tier 4 misclassification mechanism – including the classification of precious metals under alternative customs descriptions – is specifically designed to evade controls. The sophistication of Tier 4–5 laundering structures documented in the supply chain analysis further suggests that a material portion of illicit flows may pass through formal channels undetected. A detection-rate range of 5%–15% is therefore used, with 10% as the central estimate. This is moderately higher than assumptions used in sectors such as CTFL, reflecting stronger documentation requirements, while recognising meaningful enforcement gaps associated with sophisticated evasion mechanisms. Seizure data should be interpreted as a known lower bound. Detection-rate assumptions convert this floor into an implied estimate of the illicit market, which is treated as a corroborating signal rather than a standalone measure of penetration. It is therefore used alongside ministerial fiscal loss estimates and mirror trade analysis rather than as a primary estimate.

SARS annual report seizure data

The analysis draws on SARS annual reports covering financial years 2020–21 through 2024–25, using the *precious metals and stones* seizure category as the most directly relevant enforcement signal for illegal mining. The 2019–20 figure is unavailable and is excluded.

Table 55: SARS Precious Metals and Stones Seizures – South Africa

FINANCIAL YEAR	PRECIOUS METALS AND STONES SEIZURES	YEAR-ON-YEAR CHANGE
2020–21	R184.0m	–
2021–22	R144.8m	−21.3%
2022–23	R180.0m	+24.3%
2023–24	R1,6bn	+788.9%
2024–25	R4,3bn	+168.8%
4-year average 2021–22 to 2024–25	R1,6bn	–
5-year total 2020–21 to 2024–25	R6,4bn	–

Source: SARS Annual Reports 2020–21 to 2024–25.

Two features of the seizure data are analytically significant.

- First, the data shows a substantial escalation from 2022–23 onwards. Seizures remained relatively stable at approximately R144–184 million annually over 2020–21 to 2022–23 before increasing sharply to R1.6 billion in 2023–24 and R4.3 billion in 2024–25 – an increase of approximately 25-fold over the period.

  This trajectory aligns with the escalation reflected in ministerial estimates and coincides with the launch of Operation Vala Umgodi in December 2023, which materially intensified enforcement activity.

  The increase in seizures likely reflects both growth in illegal mining activity and stronger enforcement intensity. These dynamics are not mutually exclusive, and both are supported by the broader evidence base presented in this chapter.

- Second, seizure values prior to 2023–24 appear low relative to ministerial estimates of R49–60 billion annually over the same period.

At annual seizures of approximately R144–184 million against losses estimated at approximately R49 billion, the implied detection rate is approximately 0.3–0.4% – materially below the 5–15% range applied in this analysis.

This pattern is consistent with a sector in which primary illicit activity occurs outside formal production systems and laundering mechanisms can operate through formal export channels supported by documentation irregularities. Lower seizure values in earlier periods likely reflect lower enforcement intensity, constraints on enforcement and the sophistication of evasion mechanisms rather than a small illicit market.

Seizure-implied market calculations

Two averages are applied to reflect the structural break in the data.

- Full-period average (2020–21 to 2024–25): R1,281.8 million – incorporates earlier lower-seizure years and provides a conservative long-run reference point.
- Recent-period average (2023–24 to 2024–25): R2,950.0 million – reflects post-Vala Umgodi enforcement intensity and is considered more representative of current enforcement capability.

Table 56: Implied Illicit Market Based on Detection Rate Assumptions – SARS Seizures

DETECTION RATE	SEIZURES (FULL AVG)	IMPLIED ILLICIT MARKET	BROAD DENOM. (R766.5bn)*	PENETRATION RATE	INTERPRETATION
15% (high enforcement)	R1,28bn	R8.5bn	R766.5bn	1.1%	Conservative floor
10% (moderate enforcement)	R1,28bn	R12.8bn	R766.5bn	1.7%	Central – full period
5% (low enforcement)	R1,28bn	R25.6bn	R766.5bn	3.3%	Upper bound – full period
15% (high enforcement)	R2,95bn	R19.7bn	R766.5bn	2.6%	Conservative – recent-capacity scenario
10% (moderate enforcement)	R2,95bn	R29.5bn	R766.5bn	3.9%	Central – recent-capacity scenario
5% (low enforcement)	R2,95bn	R59.0bn	R766.5bn	7.7%	Upper – recent-capacity scenario

**Denominator: average total mining sales 2019–2025 (R766.5bn, Stats SA P2041). Broad denominator applied given the all-commodity scope of seizure data.*

Sources: SARS Annual Reports 2020–21 to 2024–25; Stats SA P2041; own calculations.

The seizure-implied analysis produces a range of 1.1–7.7% of total mining sales, depending on detection-rate assumptions and reference periods.

The full-period central estimate of 1.7% provides a conservative floor.

The recent-period central estimate of 3.9%, reflecting post-Vala Umgodi enforcement capability, is likely more representative of current conditions but may still understate total penetration given that enforcement interventions remain concentrated at earlier supply-chain stages relative to financial and export dimensions.

The most analytically useful feature of this method is not the point estimate but the trajectory.

Seizures increased from R180 million in 2022–23 to R4.3 billion in 2024–25, while ministerial estimates increased from approximately R49 billion to R60 billion over the same period. The proportionately larger increase in seizures suggests materially stronger enforcement intensity over time, while reinforcing that only a portion of total illicit activity is being intercepted.

The seizure method is therefore treated primarily as a corroborating directional signal consistent with ministerial estimates and mirror trade analysis rather than as a standalone penetration estimate.

Applied against the ministerial central estimate of R60 billion and the 2024–25 seizure figure of R4.3 billion, the implied detection rate is approximately 7.2% – comfortably within the 5–15% range applied in this analysis and consistent with moderate-to-high enforcement capability assumptions for a sector characterised by stronger documentation requirements but sophisticated evasion mechanisms.

Method 4: Supply-Use Table Benchmark

Conceptual basis

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful structural cross-check for sectors where illicit activity is suspected but difficult to measure directly.

***Note**: Throughout this chapter, illegal and illicit mining are used interchangeably. All mining activity without statutory authorisation under the MPRDA is a criminal offence in South Africa – unlike some other illicit trade categories where a spectrum from regulatory non-compliance to organised crime exists, illegal mining in the South African context is unambiguously criminal, and the distinction between illegal and illicit does not carry analytical weight.*

Three product codes are relevant to illegal mining: P6 (Coal, lignite and peat), P8 (Metal ores – covering gold, PGMs, copper and chrome) and P10 (Other minerals – covering precious and semi-precious stones, salt and natural abrasives).

- P8 is the primary code, given its coverage of the dominant illegal mining commodities;
- P10 provides a secondary signal for diamond and gemstone extraction; and
- P6 provides a directional signal for illegal coal mining;

Product category P9 (building stone, sand and clay) was assessed but excluded – its non-observed supply reflects legitimate small-scale quarrying rather than organised criminal extraction.

Unlike most product categories in this report where the SUT provides a penetration estimate, for mining the SUT is most valuable as a measurement gap indicator rather than a quantitative signal. The SUT is included for methodological consistency and as a structural cross-check on the fiscal loss estimates and mirror trade analysis. It is not used as a direct penetration rate input in the triangulation.

This differs fundamentally from sectors such as fuels and CTFL, where SUT anomalies provide direct quantitative signals rather than evidence of a structural measurement gap.

Supply-Use Table findings

Table 57: Stats SA Supply-Use Tables – P6, P8 and P10 Mining Product Codes, 2018–2022 (R million)

	2018	2019	2020	2021	2022	2018–2022 avg
P6 – COAL, LIGNITE, PEAT						
Total supply at purchasers' prices	R148.9bn	R150.5bn	R144.8bn	R164.6bn	R237.6bn	R169.3bn
Total industry use	R67.4bn	R77.4bn	R89.4bn	R76.0bn	R161.6bn	R94.4bn
Exports	R81.0bn	R67.0bn	R56.6bn	R90.0bn	R101.3bn	R79.2bn
Households	R121m	R132m	R63m	R60m	R105m	R96m
NOE use	R65m	R75m	R50m	R52m	R162m	R81m
NOE supply	R0	R0	R0	R0	R0	R0
NOE use / household use	53.7%	56.8%	79.4%	86.7%	154.3%	84.4%

	2018	2019	2020	2021	2022	2018–2022 avg
P8 – METAL ORES (GOLD, PGMS, COPPER, CHROME, IRON ORE)						
Total supply at purchasers' prices	R256.6bn	R311.7bn	R332.0bn	R378.4bn	R393.6bn	R334.5bn
Total industry use	R108.3bn	R118.0bn	R118.7bn	R118.9bn	R72.3bn	R107.2bn
Exports	R146.4bn	R179.9bn	R216.6bn	R263.9bn	R292.4bn	R219.9bn
Households	R0	R0	R0	R0	R0	R0
NOE use	R0	R0	R0	R0	R0	R0
NOE supply	R3m	R3m	R3m	R3m	R3m	R3m
NOE supply / total supply	~0%	~0%	~0%	~0%	~0%	~0%
P10 – OTHER MINERALS (PRECIOUS/SEMI-PRECIOUS STONES, SALT, NATURAL ABRASIVES)						
Total supply at purchasers' prices	R47.7bn	R46.1bn	R48.6bn	R61.4bn	R61.0bn	R52.9bn
Total industry use	R25.1bn	R24.4bn	R25.6bn	R28.2bn	R26.3bn	R25.9bn
Exports	R21.1bn	R19.9bn	R21.4bn	R30.1bn	R33.9bn	R25.3bn
Households	R897m	R922m	R994m	R1,063m	R1,211m	R1,017m
NOE use	R115m	R107m	R80m	R108m	R73m	R97m
NOE supply	R1,831m	R1,839m	R958m	R1,439m	R1,600m	R1,533m
NOE supply / total supply	3.8%	4.0%	2.0%	2.3%	2.6%	2.9%
NOE supply / household use	204%	199%	96%	135%	132%	151%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations.

The following are noteworthy findings from the SUT analysis:

- **P8 metal ores: effectively zero NOE supply and use**

  Metal ores – the SUT category covering gold, platinum group metals, copper, chrome and other non-ferrous metal ores – records NOE supply of R3 million throughout the full five-year period against total supply averaging R334.5 billion. This is statistically zero. NOE use is also zero throughout. The primary illegal mining commodities are effectively absent from the national accounts supply-use framework – neither the extraction of illegally mined gold and PGMs nor the downstream movement of these materials through illicit channels registers meaningfully in the SUT.

  Unlike fuels – where zero NOE supply is structurally expected since petroleum cannot be produced informally – near-zero NOE supply in metal ores reflects a measurement gap, rather than an accurate picture of underlying activity.

  Illegal extraction of gold and PGMs is occurring at scale – estimated at R40–70 billion annually – but none of it is captured in Stats SA's production accounts. This confirms that illegal precious metals extraction operates entirely outside the formal recording system, leaving no footprint in the national accounts framework.

  The P8 result is therefore treated as a measurement-gap finding rather than a benchmark against which to calibrate penetration estimates.

- **P10 other minerals: material NOE supply averaging R1.5 billion annually**

  Other minerals – which includes precious and semi-precious stones (diamonds, emeralds, industrial diamonds), salt, seawater and natural abrasives – records NOE supply averaging R1,533 million annually over 2018–2022, equivalent to approximately 2.9% of total P10 supply. This is materially non-zero and represents the only mining product code in the analysis where the SUT captures a meaningful non-observed supply signal.

  The P10 NOE supply is directly relevant to illegal diamond mining and artisanal gemstone extraction – the documented illegal extraction activities within this product category. The 2020 decline to R958 million may partly reflect COVID-19-related disruption to informal and non-observed mining activity.

  The R1.5 billion average NOE supply represents a structural lower bound on non-observed precious stone production in the national accounts – it captures only what Stats SA can estimate as non-observed through its measurement framework, and is almost certainly an understatement of the true extent of illegal extraction, given the opacity of illegal diamond and gemstone trade.

- **P6 coal: NOE use signal consistent with illegal coal mining**

  Coal records NOE use averaging R81 million annually – relatively small in absolute terms but growing sharply from R50–65 million in 2018–2020 to R162 million in 2022. NOE use exceeds recorded household coal use in 2021 and 2022, reaching 154% of household use in 2022. This structural signal – non-observed coal consumption persistently exceeding recorded legitimate household consumption – is directionally consistent with documented growth in illegal coal mining activity in Mpumalanga from 2021 onwards.

  Coal NOE supply is zero throughout, confirming that the non-observed consumption is not being supplied through any formally recorded informal production channel.

Interpreting the NOE signals

The SUT findings for mining are distinctive in comparison to most other sectors in this report. Rather than providing a penetration rate estimate, the three product codes together provide three different structural signals: a measurement gap (P8: zero confirms illegal precious metals extraction is entirely invisible), a lower-bound non-observed supply indicator (P10: R1.5bn average), and a directional use-side consistency check (P6 NOE use growth consistent with illegal coal mining escalation).

None of these signals is used as a direct input to the penetration rate. The P8 zero is interpreted as confirming the structural invisibility of the primary illegal mining activity in the national accounts – a finding that corroborates rather than contradicts the large fiscal loss estimates in Method 2.

The P10 signal of R1.5 billion in annual NOE supply is consistent with the illegal diamond and gemstone dimension documented in the forms table and supply chain analysis, but represents only a fraction of the total illegal mining picture, given P8's complete invisibility. The P6 signal is directional only.

The SUT benchmark is therefore treated as a structural confirmatory signal rather than a quantitative penetration estimate.

Its primary analytical contribution is the P8 finding: illegal extraction associated with South Africa's most valuable mining commodities – gold and platinum group metals – is economically invisible within the national accounts framework. This provides strong corroborating evidence that these activities operate within a parallel economic system functioning largely outside formal measurement structures.

Penetration Rate Matrix: Triangulated outcome

The methods applied in this analysis produce a wider range than most other sectors in this report, reflecting the structural invisibility of illegal mining in formal data systems, the methodological heterogeneity of available estimates, and the genuine uncertainty about the boundary between criminal extraction and broader economic losses. The methods are nonetheless analytically coherent and tell a consistent directional story – one of a large, escalating and materially under-measured illicit sector.

- **The mirror trade analysis** (HS 7110 – PGMs, three corridors covering 78% of exports) provides a central export under-declaration estimate of 6.1–7.1% of narrow mining sales after noise discounting (Panel B, 30–40% discount), with a single-corridor floor of 2.5–2.9% (Panel A) and an all-corridor upper bound of 7.8–9.2% (Panel C).

  The chrome corridor (HS 2610, adjusted for Mozambique transit) adds a separate and additive under-declaration signal of 1.3–1.5%, bringing the combined PGM and chrome mirror trade estimate to 7.4–8.7% of narrow mining sales. Critically, gold – the dominant illegal mining commodity – cannot be quantified through mirror trade analysis due to SA's non-reporting of export destinations, meaning the mirror trade estimate is a lower bound that systematically understates total illicit export flows. The HS 7112 precious metal scrap corridor (Belgium and Germany) corroborates the Tier 4 misclassification mechanism without being additive to the HS 7110 estimate.

- The **ministerial and regulatory estimate**s provide the primary quantitative basis. Multiple official and industry sources–including the Minister of Mineral and Petroleum Resources, the DMRE and PwC SA Mine–converge on annual economic losses of approximately R49–70 billion, equivalent to 6.4%–9.1% of total mining sales. The DMRE's estimate that illegal mining may account for up to 30% of South Africa's gold production provides an important independent cross-check, implying approximately R42.8 billion in illegal gold production at 2024 prices, consistent with the lower end of the broader range. For the purposes of economic impact modelling, a central working estimate of R60 billion (7.8% of total mining sales) has been adopted, representing the midpoint of the independently corroborated range.

- **The SARS seizure data** provides a corroborating enforcement signal. Seizures of precious metals and stones grew from R144–184 million annually over 2020–23 to R1.6 billion in 2023–24 and R4.3 billion in 2024–25 – an approximately 25-fold increase over two years, consistent with both genuine escalation and increased enforcement intensity following Operation Vala Umgodi. At a 10% central detection rate assumption, the recent-period seizure average implies an illicit market of approximately R29.5 billion annually – equivalent to 3.9% of total mining sales. The seizure trajectory is treated as a directional floor and corroborating signal rather than a primary estimate.

- **The SUT benchmark** confirms that illegal precious metals extraction is entirely invisible in the national accounts.

  P8 metal ores records effectively zero NOE supply and zero NOE use throughout 2018–2022, indicating that illegal gold and PGM extraction remains economically invisible within formal measurement systems.

  P10 other minerals records NOE supply averaging R1.5 billion annually – providing a lower-bound signal for non-observed diamond and gemstone extraction. P6 coal records NOE use exceeding household use from 2021, directionally consistent with illegal coal mining escalation in Mpumalanga. The SUT findings corroborate the fiscal loss estimates rather than provide an independent estimate of penetration rate.

- **The international benchmarking reference** places illegal mining losses in comparable jurisdictions at 28–90% of gold production in heavily affected regions of South America (Colombia, Peru) and 20–30% in parts of Sub-Saharan Africa, including Ghana, before formalisation interventions. INTERPOL and UNEP estimate global illegal gold mining losses at $12–48 billion annually. South Africa's DMRE estimate of 30% of gold production is at the high end of the global distribution for a middle-income economy with established legal systems, consistent with the unique structural vulnerabilities – 6,000 abandoned mines, a large foreign national labour supply, and a sophisticated five-tier syndicate structure – documented throughout this chapter.

Triangulated outcome. The methods converge on a coherent analytical picture. Mirror trade analysis captures the measurable export under-declaration component and provides corroborating evidence of illicit mineral outflows, although it understates total illicit mining activity because much of the value chain operates outside customs statistics. Seizure and enforcement data establish a minimum detected level of activity, while the Supply-Use Table benchmark confirms that mining contains a material non-observed component consistent with large-scale illicit production.

The primary quantitative basis is provided by the convergent ministerial, regulatory and industry estimates. Multiple independent sources–including the Minister of Mineral and Petroleum Resources, the DMRE and PwC SA Mine–indicate annual economic losses in the order of **R49–70 billion**.

Together with the DMRE estimate that illegal mining may account for up to **30% of South Africa's gold production**, these sources support the adoption of a **working estimate of approximately R60 billion per annum**, equivalent to **7.8% of total mining sales**, for the purposes of GDP, fiscal and employment modelling.

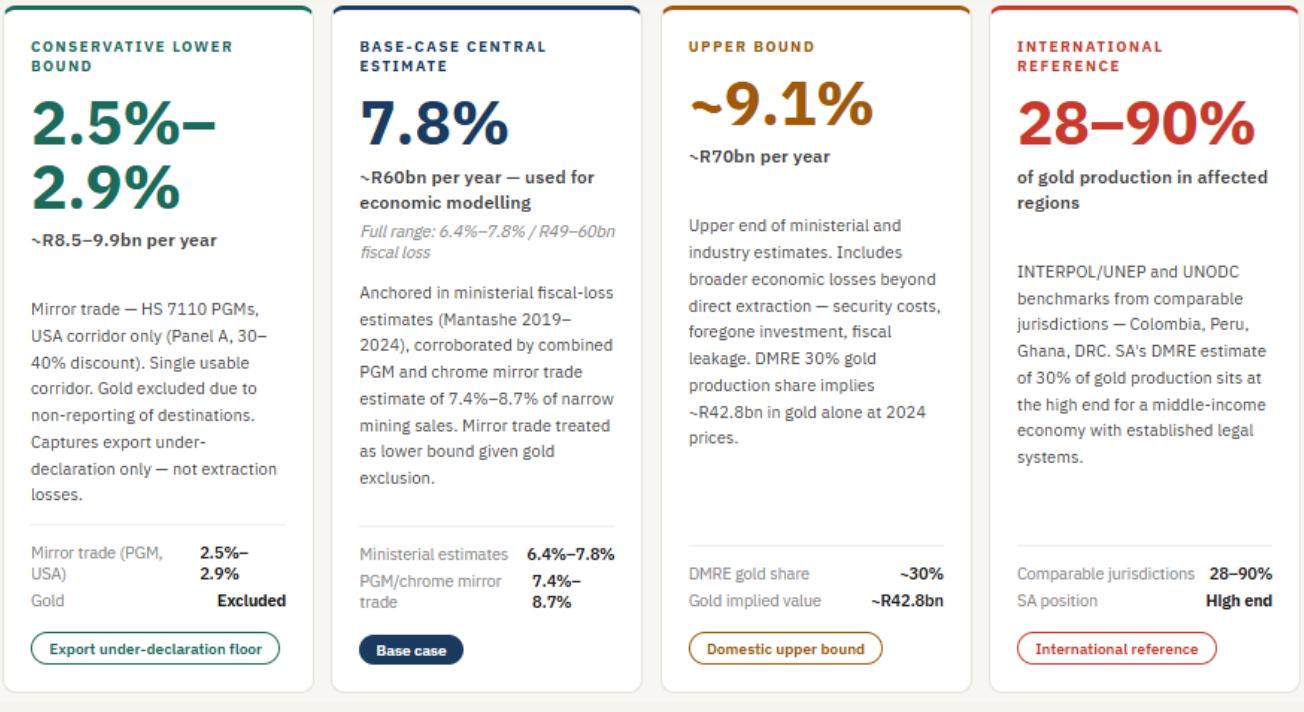


Table 58: Triangulated Estimate of Illicit Mining Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – HS 7110 PGMS, USA CORRIDOR ONLY Conservative export under-declaration floor					
Mirror trade – raw gap	R14.1bn	–	R14.1bn	R337.9bn†	4.2%
30% noise discount	R14.1bn	−30%	R9.9bn	R337.9bn	2.9%
40% noise discount	R14.1bn	−40%	R8.5bn	R337.9bn	2.5%
PANEL B – HS 7110 PGMS, THREE CORRIDORS (78% OF EXPORTS): Primary mirror trade estimate					
Raw gap	R34.3bn	–	R34.3bn	R337.9bn	10.2%
30% noise discount	R34.3bn	−30%	R24.0bn	R337.9bn	7.1%
40% noise discount	R34.3bn	−40%	R20.6bn	R337.9bn	6.1%
PANEL C – HS 7110 PGMs, all-corridor extrapolation: Illustrative upper bound					
Raw gap extrapolated	R44.0bn	–	R44.0bn	R337.9bn	13.0%
30% noise discount	R44.0bn	−30%	R30.8bn	R337.9bn	9.1%
40% noise discount	R44.0bn	−40%	R26.4bn	R337.9bn	7.8%
PANEL D – HS 2610 CHROME, ADJUSTED FOR MOZAMBIQUE TRANSIT: Additive secondary signal					
Raw gap	R8.7bn	–	R8.7bn	R337.9bn	2.6%
40% noise discount	R8.7bn	−40%	R5.2bn	R337.9bn	1.5%
50% noise discount	R8.7bn	−50%	R4.4bn	R337.9bn	1.3%
PANEL E – COMBINED PGMS + CHROME (PANELS B + D): Primary combined mirror trade estimate					
30–40% PGM + 40–50% Chrome	–	–	R25.1–29.5bn	R337.9bn	7.4–8.7%
PANEL F – MINISTERIAL AND REGULATORY FISCAL LOSS ESTIMATES: Primary quantitative basis					
PwC SA Mine 2017	R7bn	–	R7bn	R766.5bn‡	0.9%
DMRE gold production share (30% × R142.6bn)	~R42.8bn	–	~R42.8bn	R766.5bn	5.6%
Mantashe 2019 – all illegal mining	R49bn	–	R49bn	R766.5bn	6.4%
Mantashe 2024 – all illegal mining ★	R60bn	–	R60bn	R766.5bn	7.8%
Upper range – current	R70bn	–	R70bn	R766.5bn	9.1%
PANEL G – SARS SEIZURE-IMPLIED MARKET: Corroborating enforcement signal					
Full period avg (2020–25), 10% detection	R1,282m	÷10%	R12.8bn	R766.5bn	1.7%
Recent period avg (2023–25), 10% detection	R2,950m	÷10%	R29.5bn	R766.5bn	3.9%
Recent period avg (2023–25), 5% detection	R2,950m	÷5%	R59.0bn	R766.5bn	7.7%
PANEL H – SUT BENCHMARK: Structural indicator only					
P8 Metal ores NOE supply	~R0	Not applicable	Measurement gap – not a penetration rate	R334.5bn	~0% – structural invisibility confirmed
P10 Other minerals NOE supply	R1,533m	Not applicable	Lower bound signal	R52.9bn	2.9% of P10 supply
PANEL I – INTERNATIONAL REFERENCE: Contextual reference only					
Global illegal gold mining losses (INTERPOL/UNEP)	–	–	$12–48bn globally	Global production	Wide range – developing economy context
SA compared to comparable jurisdictions	–	–	28–90% of gold production in heavily affected regions	–	SA DMRE's 30% estimate at high end for middle-income economies
SCENARIOS					
Conservative scenario – **mirror trade Panel A floor**	–	–	R8.5–9.9bn	R337.9bn	~2.5–2.9% narrow / ~1.1–1.3% broad
Base-case central estimate (Primary triangulated estimate)★	–	–	R60bn	R766.5bn	7.8% of total mining sales
Upper-bound scenario	–	–	R70bn	R766.5bn	~9.1%

★ *The base-case central estimate of 6.4–7.8% of total mining sales is anchored in the ministerial fiscal loss estimates of R49–60 billion annually – the range between Mantashe's 2019 figure and his 2024 figure – corroborated by the combined PGM and chrome mirror trade estimate of 7.4–8.7% of narrow mining sales. The mirror trade estimate is treated as a lower bound, given the exclusion of gold from the quantitative analysis. The SARS recent-period seizure-implied estimate of 3.9–7.7% at a 10–5% detection rate provides a supporting range consistent with the central estimate.*

† *Narrow denominator: average gold + PGMs + copper sales 2019–2025 (R337.9bn, Stats SA P2041).*

‡ *Broad denominator: average total mining sales 2019–2025 (R766.5bn, Stats SA P2041). Used for ministerial and seizure-based estimates given their all-commodity scope.*

Sources: ITC TradeMap; UN Comtrade; Stats SA P2041 and SUT; Minister of Mineral and Petroleum Resources Jan 2025 and Feb 2026; PwC SA Mine 2025; DMRE; SARS Annual Reports 2020–21 to 2024–25; INTERPOL/UNEP; own calculations.

The Mining Sector's Value Chain and Economic Linkages

The South African mining sector is characterised by a capital-intensive, vertically integrated value chain spanning exploration, extraction, beneficiation, processing, refining and export, regulated under the Mineral and Petroleum Resources Development Act and the Precious Metals Act.

- Upstream, the sector draws on geological exploration and prospecting, mining rights allocation, capital equipment procurement, explosives and chemicals supply, and specialised engineering and technical services. South Africa has significant competitive strengths at this stage – world-class geological endowments, particularly in gold, platinum group metals, chrome, manganese, diamonds and coal, combined with over a century of accumulated mining engineering expertise and established infrastructure. Upstream activity is capital-intensive, formally registered and subject to stringent environmental, safety and licensing requirements under the MPRDA.

  Exploration and extraction feed into primary processing – ore crushing, milling and concentration – which takes place at or near the mine site. In the gold and PGM sectors, primary processing produces a concentrate or doré bar that is then transported to refining facilities. In the chrome sector, ore is exported directly and processed domestically into ferrochrome, with South Africa remaining a major global ferrochrome producer."

  In the diamond sector, rough stones are sorted and valued before sale through established channels, including De Beers's aggregation system.

- Midstream, beneficiation and refining convert primary concentrates into tradeable commodities. South Africa has limited, but strategically important, beneficiation capacity – Rand Refinery processes the majority of SA-origin gold into London Good Delivery bars, and Impala and Anglo American Platinum operate PGM refineries that produce platinum, palladium, rhodium and other PGMs to international purity standards. Chrome ore is smelted into ferrochrome – South Africa is the world's largest ferrochrome producer – primarily for export to stainless steel manufacturers. The midstream stage is the highest-value-adding segment of the domestic mining value chain and the primary point at which SA-origin minerals acquire an internationally tradeable form.

- Downstream, refined and processed minerals are sold primarily through export markets. South Africa is a net exporter of most of its primary mining commodities – gold to global bullion markets, PGMs to automotive catalyst manufacturers in the USA, Japan, Germany and the UK, ferrochrome to stainless steel producers in China and Europe, diamonds to cutting and polishing centres in Antwerp, Dubai and India, and coal to power utilities and industrial users across Asia and Europe. Domestic end-use of mining output is significant in the steel, chemicals and construction sectors but accounts for a minority of total production value.

The sectors benefiting most directly from mining industry procurement include capital equipment manufacturing and maintenance, explosives and chemicals supply, specialised engineering and technical services, transport and logistics (rail, road and port infrastructure), energy supply, environmental and rehabilitation services, and financial and legal services. Mining's upstream procurement linkages are extensive – the sector is one of the largest industrial

purchasers in the South African economy, generating substantial indirect employment and output in supplier industries.

The mining value chain has two features that are directly relevant to illicit trade risk

- First, the sector is export-dominated and internationally integrated – the overwhelming majority of production value leaves South Africa as exports, passing through customs at the export border rather than the import border. This means the primary illicit trade risk is at the export stage rather than the import stage, reversing the risk profile of most other sectors in this report.
- Second, the value chain is formally registered and heavily regulated at every stage from exploration through to refining – but the laundering mechanism that characterises illegal mining (Tier 4 export through front companies, misclassification under HS 7112, Tier 5 refinery laundering offshore) is specifically designed to exploit the formal export infrastructure rather than bypass it, making channel-based enforcement at the border structurally insufficient as a standalone response.

The concentration of illicit activity in the extraction stage – underground in abandoned and operating mines – combined with the laundering endpoint at international refineries outside South Africa's jurisdiction, creates an enforcement gap that spans the entire value chain from Tier 1 extraction to Tier 5 refining.

Effective disruption requires domestic intervention at the financial and export documentation stages, combined with international cooperation targeting the refinery laundering endpoint.

Economic Impact of Illegal Mining

Introduction

Illegal mining imposes economic costs on South Africa that extend well beyond the direct fiscal loss estimates quantified in the penetration rate analysis. The base-case loss estimate of R60 billion per year (Table 17) represents the most directly quantifiable dimension of illegal mining's economic harm – but it does not capture the full economic cost of illicit activity in the sector.

This distinction matters because the mining sector occupies a uniquely central position in the South African economy. Mining contributes approximately 7.5% to GDP and 60% of total exports – but its economic significance extends far beyond these direct contributions through its role as a major procurer of capital equipment, energy, chemicals, engineering services, transport and logistics, and financial services. Illegal mining does not merely displace formal production – it actively degrades the conditions under which formal mining can operate, imposing cascading costs on the legitimate sector, the state and surrounding communities that far exceed the direct production loss.

Unlike sectors where illicit trade primarily displaces domestic sales through cheaper competing imports, illegal mining's primary economic impact falls on legitimate mining companies, the fiscus, mining communities and the broader investment environment. The economic harm is therefore simultaneously concentrated – falling disproportionately on the gold, PGM and chrome sectors – and diffuse, generating second-order costs across security, infrastructure, environmental management and governance that affect the entire economy.

The economic impact of illegal mining operates through several interconnected channels:

- lost production revenue and associated royalties, taxes and export earnings as illegally extracted minerals bypass formal production accounting;
- direct operational costs imposed on legitimate mining companies through security expenditure, infrastructure damage, production disruptions and mine closure complications;
- suppressed investment and disinvestment as the illegal mining crisis raises the risk premium on SA mining assets and deters capital allocation;
- community and social costs, including violence, gender-based violence, human trafficking and the destruction of social infrastructure in mining communities;
- environmental costs from unregulated extraction, toxic chemical contamination, acid mine drainage and land degradation that impose rehabilitation liabilities extending decades beyond the mining activity itself;
- organised criminal network funding, as proceeds from illegal mining sustain syndicates operating across borders and supply chains, with documented links to other serious crimes, including arms smuggling, human trafficking and corruption of state officials; and
- governance costs as corruption within enforcement and regulatory structures – documented by the Blyde River Task Force as extending into senior political and law enforcement structures – undermines institutional integrity with consequences that extend well beyond the mining sector.

The economic costs are not limited to current production displacement. The structural failure to rehabilitate and close approximately 6,000 abandoned mines – the primary physical infrastructure enabling illegal mining – means the conditions that sustain illegal mining at scale are self-perpetuating rather than self-correcting. Without sustained investment in mine closure, combined with the creation of alternative livelihoods in affected communities and international cooperation targeting the refinery laundering endpoint, the economic incentive structure that drives illegal mining will remain intact as gold and commodity prices continue to rise.

The impact modelling that follows quantifies the measurable economic effects – lost output, tax revenue and employment – by applying sector-specific value-added, tax and employment multipliers to the base-case illegal mining loss estimate of **R60 billion** annually. The community, environmental, governance and criminal economy dimensions, while material and, in some cases, exceeding the direct fiscal loss in total social cost, are not directly quantifiable within the multiplier framework and are addressed qualitatively in the broader assessment.

Methodological note

This section focuses on the direct economic, employment and fiscal impacts of illegal mining and does not include broader economy-wide multiplier effects in the central estimates.

While illegal mining is likely to generate additional indirect and induced impacts – through disruption of supply-chain linkages, reduced formal sector activity and suppressed household incomes in affected communities – **quantifying these effects introduces a greater risk of overlap and double-counting**, particularly given the interconnected nature of the cost channels described above.

The **direct-impact approach provides a conservative and transparent estimate of the economic costs** associated with illegal mining. The impacts presented should therefore be interpreted as a lower-bound estimate of the true economic cost to South Africa – the community, environmental, governance and criminal economy dimensions discussed qualitatively above are not captured in the quantified figures and would, if measurable, materially increase the total.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Mining

The mining sector is a significant contributor to South Africa's tax base, generating approximately R40.7 billion in direct government revenue through personal income tax (PIT), activity-related taxes and taxes on products. Illegal mining erodes this contribution by displacing formal production, suppressing employment in compliant operations and removing economic activity from the formal tax system.

Direct formal sector taxes — current

R40.7bn

Taxes on products: R498m
PIT → R32.8bn (80.6%)
Activity → R7.5bn

PIT (80.6%) Activity (18.4%) Sales (1.2%)

Potential tax revenue if illicit mining redirected to compliant operators

R42.6bn

Estimated direct government tax revenue if illicit mining activity were fully redirected to the formal sector

Direct tax loss from illicit trade

R1.9bn

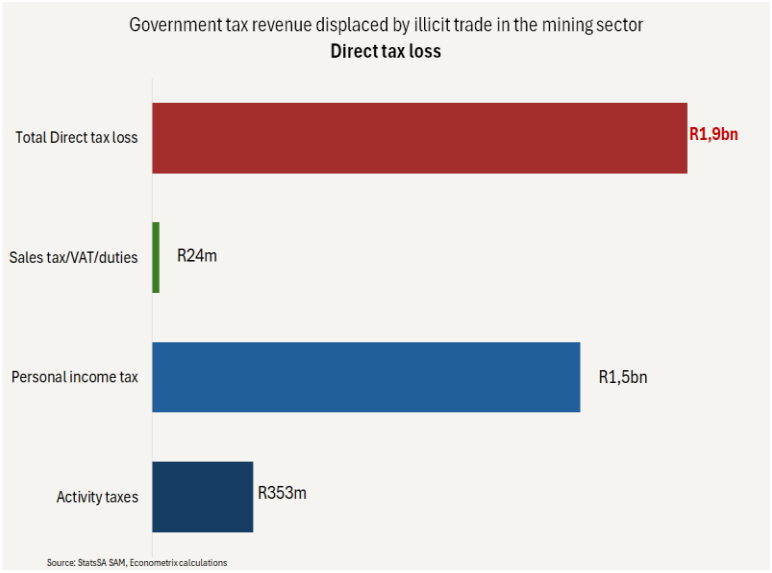
Taxes on products: R24m
PIT → R1.5bn (81% of loss)
Formal employment displacement problem
Recoverable through restored formal mining output and employment
Activity taxes → R353m

PIT (81%) Activity (18%) Sales (1%)

The fiscal suppression effect

Based on the estimated size of the illegal mining market, illegal mining is estimated to result in approximately R1.9 billion in direct tax losses annually.

Consequently, direct tax revenue from the sector could increase from approximately R40.7 billion currently to an estimated R42.6 billion if the demand currently captured by illicit trade were redirected to compliant operators.



The largest share of this loss – approximately R1.5 billion (81%) – arises from foregone **personal income tax (PIT)**. This reflects the labour-intensive nature of formal gold and PGM mining: when illegal mining displaces formal production, the associated formal employment, wages and tax contribution are also lost. This distinguishes mining from most other sectors in this study, where VAT and customs duties dominate the fiscal loss profile.

Activity-related taxes account for a further R353 million loss, while taxes on products are minimal at a R24 million loss – consistent with the low excise burden on raw mineral output relative to finished consumer goods.

The fiscal growth argument for enforcement

The estimated R1.9 billion annual tax loss represents revenue recoverable primarily through reduced displacement of formal mining employment – achieved through mine security, zama zama formalisation programmes and the elimination of conditions that sustain illegal mining at scale.

Unlike the border-enforcement focus appropriate for sectors such as CTFL, tobacco, alcohol and toys, the mining fiscal recovery argument centres on production formalisation, restoring formal output and employment rather than intercepting illicit goods at the border.

Contribution To South Africa’s GDP (2024) and the Economic Impact of Illicit Mining

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit mining activity using a three-step approach.

South Africa's mining sector is the largest contributor to GDP among all sectors assessed in this report, and one of the most capital-intensive and formally structured industries in the economy. Illicit mining – encompassing zama zama operations, illegal artisanal mining, theft of ore and concentrate, and smuggling of precious metals and minerals – displaces formal mining output and associated value added without generating the associated royalty payments, environmental compliance, employment benefits and tax contributions of licensed operators.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the mining sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The econometric analysis estimates that illicit mining activity displaces approximately R60.0 billion in formal-sector production output annually (at basic prices). This represents output diverted from licensed mining operations through illegal extraction, ore theft, concentrate theft and mineral smuggling.

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit mining activity is estimated at R25.0 billion annually, comprising two components:

- **Direct GVA displaced: R25.0 billion** – derived by applying the sector's GVA-to-output ratio of approximately 41.7% (SUT-derived) to the displaced production output of R60.0 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products: R24 million** – reflecting the relatively small role of product taxes in the mining sector compared with downstream consumer industries. Mining operates predominantly as a primary producer, with the associated fiscal contribution arising mainly through value added, royalties and activity-related taxes rather than taxes on products.

Key methodological notes

The R60 billion estimate represents the study's base-case estimate of the economic activity displaced by illicit mining. While the true scale of illicit mining activity is inherently difficult to observe, the estimate reflects the best available evidence and modelling assumptions. Alternative scenarios may result in higher or lower impacts depending on the extent of illegal extraction, ore theft, concentrate theft and mineral smuggling.

The analysis estimates economic activity currently displaced by illicit mining and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit activity were eliminated. A portion of zama zama and artisanal activity occurs in depleted or marginal ore bodies that would not be commercially viable for formal operators.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- **South Africa's mining sector is highly capital-intensive and domestically based**. Illicit mining displaces formal output across gold, platinum group metals, chrome, coal and diamonds – without generating the associated royalty payments, environmental rehabilitation obligations, formal employment benefits and tax contributions of licensed operations.
- **Where illicit operators work active or recently depleted ore bodies, the impact on licensed operators is direct** – reducing recoverable reserves, undermining shaft infrastructure, and creating safety and security costs that fall on compliant mining companies. The criminal networks associated with zama zama operations also generate broader social costs in host communities that extend well beyond the direct economic displacement estimate.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R530.6bn
2	Estimated displaced formal-sector production output due to illicit mining activity (at basic prices) *	R60bn
	× Sector GVA/output ratio (SUT-derived)	~41.7%
3a	= Direct GVA displaced by illicit trade	R25.0bn
3b	+ Foregone taxes on products due to displaced activity	R24m
3c	= Direct GDP Impact of Illicit trade	R25.04bn
COUNTERFACTUAL	Direct Mining GVA if illicit trade were eliminated	R555.6bn

* The econometric analysis estimates that illicit mining activity displaces approximately R60.0 billion in formal-sector production output **at basic prices**. Because the estimate is already expressed at basic prices, no separate adjustment for trade and transport margins is required before estimating the GDP impact.

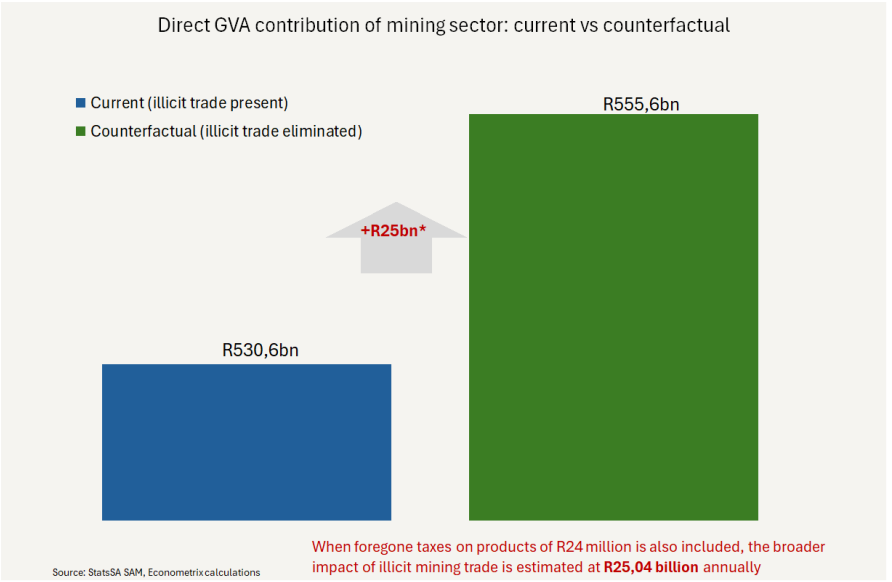
Counterfactual = estimated direct mining sector GVA if illicit mining trade were eliminated and displaced production shifted to licensed formal operators.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R530.6bn	**R25bn**	**R25.04bn†**	**R555.6bn**	**R60.0bn**
8% of total SA GVA	annually through illicit mining	Direct GVA displaced (R25bn) *plus* foregone taxes on products due to displaced activity (R24m)†		annually by illicit mining (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include VAT and duties. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Under the working estimate, illicit mining activity is estimated to displace approximately **R60.0 billion in formal-sector production output**, resulting in approximately **R25.0 billion in direct-sector GVA** and **R25.04 billion in total GDP impact** annually.



This reflects the economic activity currently displaced from licensed mining operations through illegal extraction, ore theft, concentrate theft and mineral smuggling.

As a result, the measured economic contribution of the mining sector is suppressed, with official GVA estimates understating the sector's potential contribution to South Africa's economy.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain linkages, business investment and household-spending effects are taken into account, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Strengthening enforcement against illicit mining represents one of South Africa's largest opportunities to protect productive economic activity. Redirecting production from illegal operators towards licensed mining companies would increase formal output, value added, investment and employment across one of the country's most important export-oriented industries.

Beyond the estimated R25.04 billion annual GDP impact, stronger enforcement would improve incentives for mine development, exploration, beneficiation and long-term capital investment, while reducing the substantial security, infrastructure and operational costs imposed on compliant mining companies.

Given mining's extensive linkages with engineering, equipment manufacturing, transport, mineral processing and business services, the wider economic benefits would extend well beyond the direct mining sector. Unlike new taxes or fiscal measures, these gains could potentially be realised through more effective enforcement of existing mining, customs and criminal legislation, together with stronger action against illegal mining syndicates, mineral smuggling and theft across the mining value chain.

Contribution To SA's Employment and the Impact of Illicit Mining

The mining sector is one of South Africa's largest formal employers, supporting a highly structured workforce across gold, platinum group metals, chrome, coal, diamonds and other mineral commodities. Employment spans extraction, mineral processing, engineering, logistics and mine support services across multiple provinces.

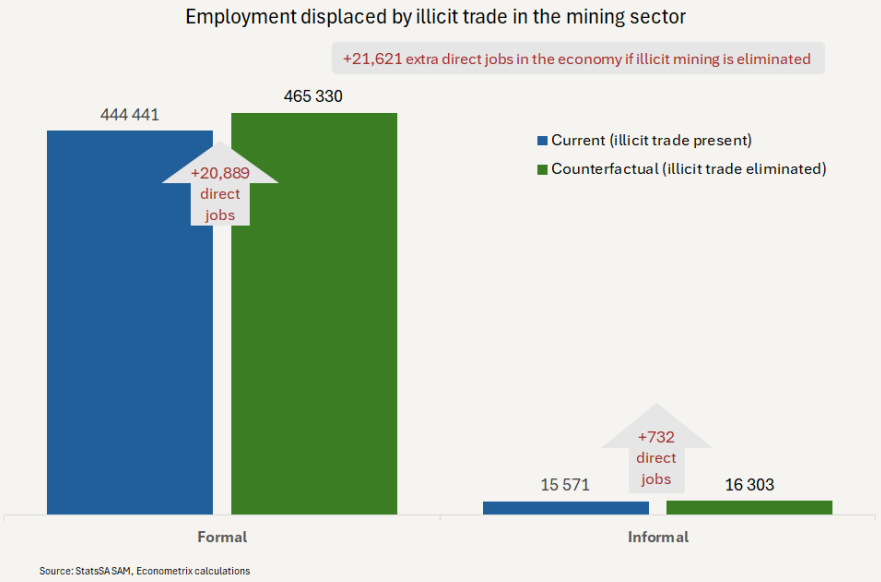
- Semi-skilled workers account for approximately 66.8% of direct formal employment, while unskilled workers account for a further 20.0%. Although mining is a capital-intensive and technically demanding industry, a meaningful share of employment remains concentrated among semi-skilled and lower-skilled workers, particularly in mining communities where formal employment opportunities are limited.
- The sector exhibits a relatively low degree of informality, with **informal workers** accounting for approximately 3.4% (15,571) of total direct employment, reflecting the highly regulated, licensed and capital-intensive nature of formal mining operations.
- While illicit mining primarily displaces formal-sector activity, it also creates a **parallel informal economy through** zama zama operations. As a result, illicit mining not only suppresses formal employment but also draws workers into dangerous, unregulated and criminally controlled activities, reducing opportunities for safe, productive and sustainable formal employment.



The employment suppression effect

The mining sector employs approximately 460,012 people.

Applying the estimated **sector-specific direct GVA displacement ratio of 4.7%**[36] to current employment levels suggests that approximately **21,621 direct formal and informal jobs** are displaced by illicit mining activity.



Total direct-sector employment could potentially reach approximately 481,633 formal and informal jobs if output currently captured by illicit operators were redirected towards licensed mining operations.

[36] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

This employment could potentially be supported across the formal mining value chain – including extraction, beneficiation, processing, logistics and associated business services–if illicit mining activity were curtailed and displaced production recovered by compliant operators.

Taking indirect and induced effects across suppliers, equipment manufacturing, transport, processing, engineering services and other linked industries into account, the **mining sector currently supports approximately 2,441,113 formal and informal jobs across the broader South African economy**, illustrating that the wider employment benefits of reducing illicit mining activity extend well beyond the sector's direct workforce, although these indirect and induced employment gains have not been quantified in the central estimates.

The employment argument for enforcement

The employment impact of illicit mining extends beyond displaced output. By undermining licensed operations, destabilising shaft infrastructure, increasing security costs and eroding the investment case for exploration and capital expenditure, illicit mining activity reduces incentives for the long-term investment that sustains and grows formal mining employment.

Given the sector's role as the dominant formal employer in many single-industry communities – particularly in the platinum belt, goldfields and Northern Cape – reducing illicit mining activity could help retain employment in regions where the absence of alternative formal employment opportunities makes mining job losses disproportionately severe.

The criminal networks associated with zama zama operations also actively suppress the development of legitimate, informal and community-based mining alternatives, compounding the long-term employment cost.

SECTOR CHAPTER

11

Illicit Non-Alcoholic Beverages Market

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R53.0bn
Annual NAB market
(SUT household consumption avg)

32,927
Direct employment (formal + informal)
91% formal employment

R17.1bn
Direct sector GVA contribution
~0.3% of SA GVA

HPL
Health Promotion Levy
Primary fiscal exposure & key illicit trade driver. Domestic production structure increases direct impact on local manufacturers.

PRIMARY FORMS OF ILLICIT TRADE

1. **Tax and levy evasion — under-declaration, misclassification & cross-border diversion.** HPL is the primary fiscal exposure and key non-compliance driver; sugar content under-declaration; product misclassification and untaxed imports from neighbouring markets. — Highest
2. **Informal & unregulated distribution channels.** Spaza shops, street traders & informal wholesalers; low-visibility distribution; limited enforcement coverage; primary retail route for non-compliant products. — High
3. **Counterfeit & simulated branded beverages.** Fake energy drinks and soft drinks resembling well-known brands; typically linked to unregistered production facilities, substandard ingredients and informal retail distribution. — Moderate

KEY DEMAND DRIVERS

- **Affordability & HPL price sensitivity** — the levy widens the gap between compliant and non-compliant product in a highly price-sensitive category.
- **Informal channel convenience** — spaza shops offer proximity, flexible pack sizes and extended hours that formal retail cannot match.
- **Brand aspiration at low cost** — demand for recognisable brands creates market for counterfeit alternatives.

KEY SUPPLY ENABLERS — TIER 1

- **HPL tax differential** — structural incentive for under-declaration, misclassification and cross-border arbitrage.
- **Fragmented oversight** — responsibility split across municipal health, SARS, CGCSA and trade authorities with coordination gaps.
- **Weak deterrence** — low penalties and limited enforcement in informal retail reduce perceived risk for non-compliant operators.

ILLICIT SUPPLY CHAIN — DOMESTIC PRODUCTION DOMINATED

1	2	3	4	5
Production	**HPL Evasion ★★**	**Border Entry ★**	**Distribution**	**Retail**
Domestic unregistered producers · cross-border untaxed imports	Under-declaration of sugar content · product misclassification **Primary fiscal leakage**	Cross-border diversion from Eswatini & neighbours **Untaxed imports**	Informal wholesalers spaza networks low traceability	Spaza shops, street vendors, informal markets

★ Border entry — cross-border diversion of untaxed beverages from neighbouring markets · ★★ HPL evasion at production/declaration stage is the primary illicit channel — unique to NAB; not present in other sectors studied

ILLICIT PENETRATION RATE — NON-ALCOHOLIC BEVERAGES (WORKING ESTIMATE)

4.7%

~R2.5 billion per year

SUT NOE upper bound adopted for economic impact quantification. Mirror trade across all four NAB headings produces no import-channel signal of meaningful scale — corroborating that illicit activity is driven primarily by domestic production-side non-compliance rather than import evasion. Sensitivity range of 3.1%–4.7% reflects uncertainty in the legitimate informal production adjustment factor. Base-case of 4.0% (~R2.1bn) retained for sensitivity context.

FISCAL DISPLACEMENT — ILLICIT NON-ALCOHOLIC BEVERAGE TRADE

CURRENT SECTOR TAX BASE

R9.8bn

Annual government revenue from NAB sector

Sales taxes R8.1bn · PIT R1.3bn · Activity R0.4bn

→

ANNUAL TAX LOSS — ILLICIT TRADE

R283m

Direct fiscal cost of illicit NAB trade annually

VAT & HPL R234m (83%) · PIT R38m · Activity R11m

NATURE OF THE LOSS

83% of loss is VAT & HPL — a production compliance problem.

Recoverable through HPL compliance monitoring and enforcement.

POTENTIAL IF DEMAND REDIRECTED

R10.1bn

Potential tax revenue if illicit NAB demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT NON-ALCOHOLIC BEVERAGE TRADE

R17.1bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R1.2bn

Formal-sector production output displaced annually

At basic prices

R439m

Direct sector GVA displaced annually

Sector value added; excl. production taxes

R673m

Direct GDP impact annually

GVA R439m + HPL/VAT R234m

R17.5bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT NON-ALCOHOLIC BEVERAGE TRADE

32,930

direct jobs

Formal: 30,098 (91.4%) · Informal: 2,831 (8.6%)

~860

jobs displaced

Formal: 782 · Informal: 74

60.9%

skilled & semi-skilled formal share

Displacement falls disproportionately on a skilled worker workforce

33,790

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were recovered by compliant operators



GVA = gross value added; measures the sector's direct economic contribution before production taxes.
GDP impact = GVA plus foregone taxes on products including HPL.
Employment displacement applies a 2.6% illicit trade GVA displacement rate to current direct employment levels.
Tax loss is a direct estimate; ***broader multiplier effects are not included to avoid double-counting.***

OVERVIEW OF ILLICIT NON-ALCOHOLIC BEVERAGES (NAB) MARKET IN SOUTH AFRICA

Sector Positioning and Scope

For the purposes of this analysis, a distinction is drawn between non-compliant activity – where products enter the market outside full regulatory or tax obligations, typically through informal production or under-declaration – and illicit activity in the narrower sense, which includes counterfeiting, smuggling and deliberate circumvention of customs or IP controls. Both are present in the NAB sector. The penetration estimates in this chapter capture both dimensions, with the Supply-Use Tables' NOE (non-observed economy) benchmark adjusted to remove legitimate informal production before modelling economic impact.

Global Patterns of Illicit Activity

Globally, illicit trade in non-alcoholic beverages is less prevalent and less organised than in other consumer goods sectors. The OECD and EUIPO estimate that counterfeit food and beverages together account for approximately 3.5% of global trade in those categories, with certain non-alcoholic beverage categories – particularly bottled water, energy drinks and carbonated soft drinks – featuring regularly in international counterfeit and seizure reports.

Illicit activity typically manifests through counterfeit branded products, grey-market imports, and tax or duty evasion, rather than in large-scale, highly structured illicit supply chains. These activities are most commonly observed in markets characterised by high price sensitivity, fragmented retail channels, and uneven regulatory enforcement.

Structure of Illicit Trade in South Africa

In the South African context, illicit activity in the NAB sector is driven primarily by tax and compliance dynamics rather than widespread counterfeiting. The Health Promotion Levy (HPL) – commonly referred to as the sugar tax – applies to sugary beverages containing more than 4g of sugar per 100ml and is levied on the sugar content above this threshold.

This creates a price differential between compliant and non-compliant products, generating incentives for under-declaration of sugar content, product misclassification, grey-market imports and cross-border smuggling of lower-cost beverages from neighbouring countries where equivalent levies do not apply.

In addition, informal and unregistered production, together with distribution through fragmented retail channels such as spaza shops and informal traders, creates pathways through which non-compliant or illicit products can enter the consumer market.

SARS has reported seizures of counterfeit soft drinks and energy drinks, though these are typically captured under broader counterfeit goods categories rather than a dedicated beverages line, which makes precise quantification of the sector's illicit footprint difficult. As a result, available indicators should be interpreted as partial and likely conservative, with some activity occurring outside observable formal trade and enforcement data.

Market Characteristics and Risk Profile

Compared to excise-intensive sectors such as tobacco and alcohol, where large tax differentials have driven deep and systemic illicit penetration, the NAB segment exhibits a more diffuse and less embedded pattern of non-

compliance. This reflects both the lower margins available to illicit operators and the more structured formal supply chains that dominate beverage distribution in South Africa.

The relatively low value-to-volume ratio of beverage products further limits the scalability of organised counterfeiting. The risk profile, however, is not purely fiscal.

Consumer health concerns are material, particularly in informal retail settings: recent incidents linked to products sold through spaza shops and informal retail channels – including hospitalisations and reported child fatalities – highlight that illicit and non-compliant NAB products can pose direct safety risks, especially where they circulate without quality control, proper labelling, or verifiable supply chain oversight.

Economic Significance of the Sector

The non-alcoholic beverages sector forms part of South Africa's broader food and beverage manufacturing value chain and includes carbonated soft drinks, fruit juices, bottled water, energy drinks, concentrates and other ready-to-drink products.

The sector supports formal manufacturing, packaging, logistics, warehousing and retail activity, while also maintaining extensive distribution networks that reach informal and township markets. As a result, even relatively modest levels of illicit or non-compliant activity can have wider implications for tax collection, formal-sector competitiveness and consumer confidence.

Role in the Broader Illicit Economy. Illicit trade in non-alcoholic beverages should therefore be understood as a secondary but non-negligible component of the broader illicit economy, contributing primarily to tax leakage and regulatory non-compliance, with additional consumer health implications in specific channels. Although the estimated level of illicit penetration is relatively low compared to tobacco and alcohol, the sector provides an important case study of how tax differentials, informal distribution channels and regulatory compliance challenges can create opportunities for illicit activity even in highly competitive consumer markets.

STRUCTURE AND DRIVERS OF ILLICIT NAB TRADE

Forms of illicit NAB trade in South Africa: ranked assessment

Illicit and non-compliant trade in non-alcoholic beverages in South Africa occurs across several channels, though at a more modest scale and with less systemic organisation than in food, tobacco, or alcohol. The ranking below provides an indicative assessment of the most relevant forms in the South African market.

RANK	FORM OF ILLICIT TRADE	SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Tax and levy evasion (HPL under-declaration, misclassification, cross-border diversion)**	**Highest**	The Health Promotion Levy on sugary beverages creates a structural price differential between compliant and non-compliant products, incentivising under-declaration of sugar content, misclassification of product categories, and diversion of untaxed beverages from neighbouring markets. This is the primary driver of illicit activity in the NAB sector.
2	**Informal and unregulated distribution channels (spaza shops, street traders, informal wholesalers)**	**High – major enabling channel**	South Africa's extensive informal retail environment provides a low-visibility distribution pathway for non-compliant and illicit NAB products. Spaza shops and informal traders are a key retail channel through which counterfeit and non-compliant beverages reach consumers, and enforcement coverage of these channels remains limited.
3	**Counterfeit and simulated branded products**	**Moderate**	Fake versions of globally recognised brands – including Coca-Cola, Red Bull, Monster, Sprite and Fanta – are among the most commonly seized counterfeit beverage products internationally. In South Africa, counterfeit energy drinks and carbonated soft drinks are occasionally observed in informal retail channels, typically produced in unregistered facilities using substandard ingredients.
4	**Smuggled or grey-market genuine product**	**Moderate**	Genuine branded beverages imported without full duty or HPL compliance, or diverted from lower-tax markets, represent a form of illicit trade that is difficult to distinguish from compliant stock once in distribution. Cross-border smuggling from neighbouring countries with no equivalent sugar levy creates an arbitrage incentive, although at a smaller scale than that observed in tobacco and alcohol.
5	**Unlicensed or non-compliant local production**	**Low–Moderate**	Small-scale, unregistered production of beverages outside the formal tax and regulatory framework contributes to non-compliance, particularly in concentrated or mixed-product categories. Scale is likely limited given the capital requirements of beverage manufacturing relative to other food categories.

Note: This ranking is indicative rather than definitive, reflecting an analytical assessment based on enforcement evidence, regulatory patterns, and international typologies. Comprehensive quantitative data on the relative scale of illicit NAB trade channels in South Africa is not available.

Illicit trade in the NAB sector is primarily tax- and distribution-driven rather than production-driven. The Health Promotion Levy is the single most important structural factor shaping illicit activity in this segment, creating incentives for evasion that are likely to persist or intensify if the levy increases. Informal retail channels are the primary route to market for non-compliant product, and enforcement in these environments remains uneven. Unlike tobacco or alcohol, the NAB sector does not exhibit a large-scale, highly organised illicit supply chain comparable to excise-intensive sectors – activity is more diffuse, opportunistic, and concentrated in specific product categories and channels.

Key Illicit Consumer Behaviour and Demand-Side Drivers

Demand for illicit and non-compliant non-alcoholic beverages in South Africa is shaped by affordability pressure, channel convenience, and limited consumer ability to verify product authenticity. The NAB sector also reflects distinctive dynamics, particularly the role of branded aspiration and the influence of the Health Promotion Levy in amplifying price sensitivity. These factors enable non-compliant products to persist, even where overall illicit penetration remains relatively low.

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Affordability pressure and price sensitivity	Non-alcoholic beverages – particularly carbonated soft drinks and energy drinks – are high-frequency, discretionary purchases for many South African consumers. Sustained cost-of-living pressure, elevated food inflation and weak income growth make price the dominant purchase driver, increasing tolerance for cheaper alternatives of uncertain origin or compliance. The HPL widens the price gap between formal compliant product and untaxed or non-compliant alternatives, directly amplifying this dynamic.	**Highest**
Access and convenience through informal retail channels	Spaza shops, street vendors, and informal traders are deeply embedded in township and peri-urban communities, and serve as important points of purchase for beverages for many consumers. These channels offer proximity, flexible pack sizes and extended trading hours that formal retail cannot match. Their prevalence creates routine consumer exposure to non-compliant or counterfeit NAB products as part of everyday purchasing behaviour.	**Highest**
Weak ability to verify product authenticity	Non-compliant or counterfeit beverages – particularly energy drinks and carbonated soft drinks – are typically packaged to closely mimic legitimate branded products, using similar colour schemes, fonts and labelling conventions. Many consumers may not be able to distinguish a counterfeit from a genuine product based on appearance alone, particularly at the point of informal purchase, where scrutiny is low, and transactions are fast.	**High**
Demand for branded products at lower price points	Consumer demand for recognisable brands such as Red Bull, Monster, Coca-Cola and Fanta at affordable prices creates a natural market for counterfeit and simulated alternatives. Familiarity with packaging and brand identity is often used as a proxy for quality, making consumers susceptible to well-executed counterfeits or look-alike products that trade on brand recognition without delivering a genuine product.	**High**
Normalisation of informal purchasing behaviour	In many communities, purchasing beverages from spaza shops, street vendors, and informal distributors is routine and socially embedded. Consumers in these channels typically do not distinguish between compliant and non-compliant stock, particularly where illicit products are sold alongside legitimate goods. This normalisation reduces scrutiny and sustains demand for non-compliant products without deliberate consumer intent.	**High**
Household trade-down behaviour	As disposable incomes come under pressure, consumers trade down across brands, channels and quality tiers. In the NAB context, this can mean substituting formal retail purchases with informal channel equivalents – increasing exposure to non-compliant or illicit products, particularly in the energy drink and carbonated soft drink categories where brand-switching and price arbitrage are most visible.	**Moderate–High**
Perceived low risk of purchase	Buying a cheap energy drink or soft drink from a spaza shop carries little perceived legal, social or reputational risk for consumers. Unlike illicit tobacco or alcohol, where product characteristics or purchasing context may signal non-compliance, non-compliant beverages are largely indistinguishable from legitimate products in informal retail settings. This absence of perceived risk removes a key behavioural deterrent.	**Moderate**
Limited awareness of health and economic harms	Many consumers are unaware that non-compliant beverages may, in some cases, contain unauthorised additives, incorrect sweetener ratios, unregulated colourings, or unsafe water sources. Awareness of the broader economic harms – including tax leakage, pressure on compliant manufacturers, and erosion of brand integrity – is similarly limited, reducing demand-side resistance to illicit products.	**Moderate**

Demand for illicit and non-compliant non-alcoholic beverages in South Africa is driven less by deliberate consumer choice than by structural purchasing conditions and behavioural norms. The HPL plays a central role in this dynamic: by widening the price differential between compliant and non-compliant products, it increases the relative attractiveness of lower-cost alternatives in a highly price-sensitive category.

Unlike tobacco or alcohol, where non-compliance may be more visible or socially significant, illicit NAB consumption is often embedded in routine purchasing behaviour and may occur with limited consumer awareness, particularly in informal retail environments where product scrutiny is low.

Supply Side Enablers of Illicit NAB Trade

Supply-side enablers are organised into two tiers reflecting their impact on illicit NAB trade. Given the sector's limited and diffuse nature, a two-tier structure is sufficient, operating within a low-penetration market where non-compliant activity persists.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
Tax differential created by the Health Promotion Levy The HPL creates a structural price gap between compliant and non-compliant products, generating direct commercial incentives for under-declaration of sugar content, product misclassification, cross-border diversion and untaxed informal production. This is the single most important supply-side driver in the NAB sector, broadly analogous in structure, though at a smaller scale than excise differentials in tobacco and alcohol.	Fragmented oversight of informal retail channels Regulatory responsibility for food and beverage compliance in informal retail settings is distributed across municipal environmental health services, SARS, the CGCSA and trade authorities. Coordination gaps and uneven inspection capacity reduce deterrence and allow non-compliant products to circulate with limited risk of detection.
Large informal and semi-formal retail ecosystem South Africa's extensive informal retail network – comprising spaza shops, street traders and informal wholesalers – provides a highly accessible, low-visibility distribution channel for illicit and non-compliant beverages. These channels offer wide geographic reach, limited traceability and low oversight, making them a primary route to market for non-compliant NAB products.	**Weak deterrence due to low penalties and limited enforcement outcomes** Penalties for selling counterfeit or non-compliant beverages are typically low relative to potential gains, and enforcement in informal retail environments is largely reactive. Limited prosecutions and inconsistent follow-through reduce the perceived risk for illicit operators and do little to disrupt established distribution patterns.
Cross-border arbitrage and smuggling incentives The absence of equivalent sugar levies in neighbouring countries creates a meaningful price differential that incentivises the importation of untaxed beverages through informal border crossings or through misdeclaration at formal ports of entry. This dynamic is broadly similar in structure, though smaller in scale, to the tobacco and alcohol smuggling incentives well documented in the South African context.	**Limited laboratory and verification capacity** Detecting adulterated, diluted or counterfeit beverages often requires laboratory testing, yet verification capacity in the informal retail environment is limited. This creates an enforcement asymmetry in which illicit product can circulate with relatively low risk of identification or prosecution.
Tier 2 – Structural & Systemic Drivers	
Relatively lower barriers to entry for certain forms of illicit production Producing counterfeit or simulated beverages – particularly through dilution, repackaging or look-alike labelling – can be undertaken at small scale with relatively lower capital requirements than formal beverage manufacturing. This lowers the threshold for illicit entry and enables distribution through informal networks.	**Absence of a dedicated illicit beverages tracking or seizure framework** SARS seizure data for counterfeit soft drinks and energy drinks is typically captured under broader counterfeit goods categories rather than a dedicated beverages line, making quantification of the sector's illicit footprint difficult and limiting the ability to monitor trends or target enforcement resources effectively.
Ease of product dilution, adulteration and repackaging Non-alcoholic beverages – particularly concentrates, energy drinks and bottled water – are susceptible to dilution beyond specification, substitution of ingredients, or repackaging of inferior product in branded containers. These forms of adulteration are difficult to detect visually and can circulate undetected through informal channels.	**Technical complexity in HPL compliance** The technical nature of HPL compliance – requiring accurate measurement and declaration of sugar content per 100ml – creates scope for deliberate misclassification or under-declaration, particularly among smaller or informal producers operating outside the formal tax net and without robust compliance infrastructure.
Regional trade routing and re-export dynamics Beverages may be routed through multiple regional markets before entering South Africa, obscuring origin and complicating customs verification. This enables grey-market diversion and makes it difficult to distinguish compliant from non-compliant imported stock at the point of entry.	

Sources: Own analysis based on selected media and policy sources.

The Illicit NAB Supply Chain | Five-stage flow

1 ORIGIN

Production & Sourcing — PARTIALLY OUTSIDE SA JURISDICTION — LIMITED INTERVENTION

KEY SOURCE REGIONS

Asia · regional African producers · neighbouring countries · global beverage manufacturing hubs

Illicit NAB products may originate as counterfeit branded beverages (particularly energy drinks and soft drinks), grey-market or diverted stock, non-compliant imports, or small-scale, unregistered domestic production outside regulated systems.

ENFORCEMENT LEVER

Production may occur both outside SA's direct regulatory reach and within domestic informal or unregistered settings. Intervention requires a combination of **international cooperation and local enforcement**, including importer verification and oversight of small-scale domestic production.

2 TRANSIT

Re-Export Hubs & Indirect Routing — OPACITY & EVASION MECHANISM

KEY ROUTING PATHWAYS

Regional transit hubs · neighbouring countries · selected trade intermediaries

Beverages may be routed through intermediary markets, re-invoiced, or misdeclared before entering South Africa. Compared to food, complex re-export routing plays a more limited role.

ENFORCEMENT IMPLICATION

Indirect routing can obscure origin and weaken traceability, but is not a primary driver. **Targeted customs risk profiling and importer due diligence** remain important.

3 BORDER ENTRY ★

Formal Import Channels & Borders — ★ PRIMARY FISCAL & REGULATORY CONTROL POINT

KEY ENTRY POINTS

Ports (Durban, Cape Town) · land borders · courier and small-parcel systems

COMMON ILLICIT ENTRY MECHANISMS

Under-declaration of sugar content (HPL evasion), misclassification, undervaluation, cross-border smuggling from lower-tax markets, and small consignments to avoid detection.

ENFORCEMENT IMPLICATION

This is the **main intervention point for HPL-related evasion and customs non-compliance**. Parcel and mixed-consignment flows increase the risk of evasion.

4 POST-BORDER DISTRIBUTION

Formal, Informal & Diverted Distribution Channels — BLENDED DISTRIBUTION SYSTEM

KEY DISTRIBUTION PATHWAYS

Informal distributors · spaza shops · street traders · grey-market resale · diverted stock

Illicit NAB supply is less about fully underground systems and more about **non-compliant products entering and circulating within mixed distribution networks**, often alongside legitimate stock, including diversion at the wholesale and secondary distribution level.

ENFORCEMENT IMPLICATION

Detection becomes more difficult once products enter distribution. Effective intervention requires **market surveillance, oversight of wholesalers and distributors**, and coordination across SARS, municipalities and regulators.

5 RETAIL

Multiple Routes to the Consumer — FINAL ACCESS POINT — HIGHEST CONSUMER EXPOSURE

Channel 1
Informal retail

Primary consumer-facing route

Importer/distributor → informal wholesalers → spaza shops/street traders → consumer

- Price-driven, convenient, low-oversight environment

Channel 2
Mixed formal–informal resale

Supplier/distributor → secondary resale/grey market → consumer

- Blends compliant and non-compliant product

Channel 3
Small-scale & local distribution

Local sellers/informal networks → consumer

- Trust-based, low-scrutiny environments

Channel 4
Online & social media *(emerging)*

Seller → e-commerce/social platforms → courier → consumer

- Smaller but growing channel

ENFORCEMENT IMPLICATION

This is where non-compliant products reach consumers, often with limited ability to verify authenticity. Risks primarily relate to **tax non-compliance** and, in some cases, product safety, particularly in informal retail environments.

Source: Own analysis based on selected media and policy sources

SCALE OF ILLICIT NAB – PENETRATION RATE

Methodological approach

Direct measurement of illicit NAB trade is inherently difficult because counterfeit, falsified, smuggled and non-compliant NAB products are deliberately designed to evade detection and formal reporting. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the illicit trade penetration rate in South Africa's NAB sector using two complementary methods. The seizure-implied method is not applied here because SARS does not separately report NAB-specific customs seizures in its annual reports – counterfeit soft drink and energy drink seizures are captured within broader counterfeit goods categories that cannot be reliably disaggregated to the beverage level. The international benchmarking method is similarly limited for NAB, as globally comparable estimates of illicit beverage penetration are not available at a domestic market penetration level directly comparable to the South African context.

	METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1.	Mirror trade analysis	Import misdeclaration, undervaluation and under-recorded imports across NAB headings	UN Comtrade / ITC TradeMap	Primary quantitative indicator of illicit market entry via import misdeclaration, origin masking and cross-border arbitrage.
2.	Supply-Use Table benchmark	Non-observed domestic market activity in soft drinks	Stats SA Supply-Use Tables	Domestic cross-check of non-observed production and consumption activity, including HPL non-compliance and informal production.

Together, these methods distinguish between illicit market entry – reflected in trade and customs indicators – and domestic market penetration, reflected in non-observed activity captured in the SUTs. The final penetration range is derived from the relationship between both methods and should be interpreted as a directional, evidence-based estimate of illicit NAB trade in South Africa.

Unlike the food sector, where both methods contribute material quantitative signals that require triangulation, the NAB analysis yields an asymmetric result: mirror trade analysis produces no import-channel signal of sufficient scale to generate a standalone penetration estimate. At the same time, the SUT benchmark serves as the primary quantitative anchor. The two methods are therefore not competing estimates to be averaged but complementary signals – the mirror trade findings corroborate the structural conclusions of the SUT analysis without independently generating a parallel estimate. This asymmetry is discussed further in the penetration rate matrix section.

In the NAB sector, the boundary between informal, non-compliant and illicit trade is meaningful but more tractable than in the food sector. The presence of a specific fiscal instrument – the Health Promotion Levy – creates a relatively clearer demarcation between compliant and non-compliant activity than exists in unregulated food categories, allowing the NOE supply figure to be interpreted with greater specificity as reflecting HPL evasion and unregistered production rather than the broader spectrum of informal but legitimate activity that characterises much of the food sector's non-observed economy. This distinction is addressed explicitly in the SUT benchmark section below.

Estimating the Size of the NAB Market

The market-size denominator for NAB is derived from the SA Reserve Bank's household consumption expenditure data. The SARB national accounts series for household consumption expenditure on food, beverages and tobacco is used in preference to formal retail data because it is published in nominal terms – consistent with the nominal rand values used throughout this analysis – and captures household spending across both formal and informal channels, providing a more complete representation of the total market in which illicit goods circulate.

Because the SARB category combines food, beverages and tobacco, an allocation is required to isolate the non-alcoholic beverages component. Two official Stats SA sources inform this allocation.

- The **2022/23 Income and Expenditure Survey** indicates that non-alcoholic beverages account for approximately 1.2% of total household expenditure, equivalent to **6.8%** of the combined food, beverages and tobacco category.
- The **2023 CPI basket weights** imply a non-alcoholic beverages weight of approximately 1.39 out of a combined category total of 22.87, equivalent to **6.1%** of the combined category.

An NAB allocation range of 6.1%–6.8% is applied, with a central estimate of 6.4% – representing the midpoint between the IES expenditure share and the CPI price-weight share within the combined category. The difference between the two sources reflects the relatively higher CPI weight assigned to alcoholic beverages and tobacco due to excise duty components embedded in their prices, which pulls the CPI NAB share marginally below the IES expenditure share.

Table 59: Estimated NAB Market Size - South Africa

YEAR	HOUSEHOLD CONSUMPTION OF FOOD, BEVERAGES AND TOBACCO (NOMINAL)	NAB CONSUMPTION: CENTRAL ESTIMATE (6.4%)
2019	R697,2bn	R44.6bn
2020	R677,3bn	R43.3bn
2021	R749,8bn	R48.0bn
2022	R865,1bn	R55.4bn
2023	R930,5bn	R59.6bn
2024	R984,5bn	R63.0bn
2025	R1055,6bn	R67.6bn
Average	**R851,4bn**	R54.5bn†

Source: South African Reserve Bank; Stats SA Income and Expenditure Survey 2022/23; Stats SA CPI basket weights 2023; own calculations.

† The SARB-derived NAB market estimate of R54.5 billion per year (2019–2025 average) is closely consistent with the SUT household consumption figure for P26 of R53.0 billion per year (2018–2022 average). The R1.5 billion residual difference is attributable to different reference periods, price-year differences and minor scope variations between the SARB allocation and the P26 product definition – it is not material to the penetration rate calculation. The SUT figure of R53.0 billion is retained as the primary denominator, given its direct derivation from the same national accounts framework as the NOE supply figures used in the SUT benchmark analysis.

Method 1: Mirror Trade Analysis[37]

Conceptual basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate import under-recording, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains. While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative – though not definitive – of underlying trade frictions or potential misreporting.[38]

HS Code Coverage

Four customs headings are assessed, selected on the basis of their relevance to the NAB product universe, their exposure to HPL-related evasion incentives, and their materiality in South Africa's recorded import profile:

Table 60: NAB Mirror Trade – HS Code Coverage

HS CODE	PRODUCT DESCRIPTION	HPL APPLICABILITY	ILLICIT TRADE RELEVANCE
2101	Coffee/tea/maté extracts, concentrates and preparations	No – but misclassification of finished RTD beverages here evades HPL	Misclassification target for RTD coffee and iced tea
2201	Plain water – no additives	No	Misclassification target for flavoured/sweetened waters
2202	Sweetened/flavoured waters; other NAB (excl. 2009 juices)	Yes – primary HPL heading	Core illicit trade heading; counterfeit soft drinks, energy drinks, RTDs
2009	Fruit and vegetable juices	No	Limited – some adulteration and dilution risk

HS 2106 (food preparations NES – beverage bases, syrups and concentrates) was considered but excluded from formal mirror trade analysis.

Although it is a plausible misclassification target for energy drink and soft drink concentrates imported to avoid finished-product duty and HPL liability, the heading is too broad and heterogeneous to yield NAB-specific findings at the level of aggregation used in this analysis.

Any misclassification risk associated with 2106 is better investigated through a domestic customs classification audit than a bilateral mirror trade comparison.

[37] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[38] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

HS 2201 – Waters, including natural or artificial mineral waters and aerated waters, not containing added sugar, other sweetening matter or flavoured

Italy dominates South Africa's HS 2201 imports with an average share of 53.9% over 2019–2025, reflecting the significant presence of premium Italian mineral water brands in the South African market. As a high-income, high data quality supplier operating through compliant formal trade channels, Italy was excluded from mirror trade analysis on the grounds that bilateral alignment would be expected to confirm compliant trade rather than reveal evasion signals.

Two regional and non-traditional corridors were assessed based on average import shares (2019–2025) and structural evasion incentives: Mozambique (2.8%) and the United Arab Emirates (1.2%). The primary evasion risk for HS 2201 is misclassification – sweetened or flavoured products entering South Africa declared as plain water to avoid the 21% customs duty and HPL applicable to HS 2202.

- UAE – Most significant signal (cumulative gap between exports and imports of R7.5m, 2019–2024).

  The United Arab Emirates consistently records higher exports to South Africa than South Africa records as UAE-origin imports under HS 2201, with the export-import gap widening sharply from near-zero in 2019–2021 to R1.9 million in 2023 and R4.1 million in 2024. The cumulative export-import gap over 2019–2024 amounts to R7.5 million. The concentration is notable – 2024 alone accounts for approximately 55% of the cumulative rand gap, reflecting both the widening $ discrepancy and rand depreciation over the period. The pattern is consistent with the UAE's established role as a trans-shipment hub, where origin masking or re-export routing may result in product entering South Africa through underdeclared or misattributed channels.

- Mozambique – Weak signal (cumulative export-import gap of R2.1 million, 2019–2024).

  Mozambique shows a modest and inconsistent positive gap, with a spike in 2019 that subsequently normalised. This is consistent with minor discrepancies likely reflecting normal reporting variation rather than systematic evasion.

Overall, mirror trade analysis for HS 2201 shows limited and inconsistent evidence of systematic evasion, with isolated signals concentrated in specific corridors rather than a broad-based pattern. **Where discrepancies do arise, they are more likely to reflect re-export dynamics, classification differences, or reporting variation than large-scale illicit trade.** These findings are consistent with the overall assessment that import-channel evasion in the NAB sector is secondary to domestic compliance risk as the primary fiscal concern.

It should be noted that misclassification of 2202-classifiable product as 2201 – the primary evasion mechanism for this heading – is by its nature only partially detectable through bilateral mirror trade analysis, and actual non-compliance may exceed what the data can reveal.

HS 2202 – Waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured, and other non-alcoholic beverages

HS 2202 is the primary customs heading for non-alcoholic beverages subject to both import duty and the Health Promotion Levy in South Africa. It covers waters with added sugar or sweetening matter, carbonated soft drinks, energy drinks, sports drinks, flavoured waters and other ready-to-drink non-alcoholic beverages, excluding fruit and vegetable juices classifiable under 2009.

Under the South African tariff schedule, finished NAB products imported under the relevant 2202 subheadings attract a customs duty of 21% on CIF value, in addition to HPL liability where sugar content exceeds 4g/100ml. This

dual fiscal burden – customs duty plus HPL – creates a meaningful price differential between compliant imported product and untaxed or misdeclared alternatives, making 2202 the heading most exposed to deliberate evasion in the NAB sector.

Given the high fiscal burden on HS 2202 imports, this heading provides the most direct lens for assessing import-based evasion in the NAB sector.

Four corridors were selected for mirror trade analysis based on average import shares over the 2019–2025 period and structural evasion incentives. The selection deliberately excludes high-share Western European suppliers – Austria (40.5% average), Switzerland (12.5%), Netherlands (5.8%), United Kingdom (5.2%) and Germany (2.4%) – on the grounds that these represent compliant formal trade flows where mirror trade analysis would be expected to confirm close alignment rather than reveal evasion. The analytical value of these corridors lies in serving as a baseline integrity check rather than as an illicit trade signal.

The four selected corridors reflect two distinct evasion mechanisms – origin masking and trans-shipment on one hand, and cross-border underrecording and HPL arbitrage on the other – and are discussed in that order below.

- **UAE – Origin Masking and Trans-Shipment**

  The United Arab Emirates is South Africa's third largest recorded source of 2202 imports by average share (15.5% over 2019–2025), reflecting its role as a significant regional distribution and re-export hub for beverages. Mirror trade analysis reveals a large, persistent and structurally significant negative export-import gap across the entire analysis period – South Africa consistently records substantially more UAE-origin 2202 imports than the UAE records as South Africa-bound exports.

  The cumulative export-import gap over 2019–2024 amounts to -R595 million – South Africa recording R595 million more in UAE-origin imports than the UAE records as South Africa-bound exports. This represents the largest single mirror trade discrepancy identified in the NAB analysis, and it is a structural discrepancy consistent with trans-shipment and origin masking dynamics, rather than a direct measure of illicit trade volumes.

  The annual gap widened sharply through the period, peaking at -R170.6 million in 2022 before narrowing somewhat in 2023 and 2024 – a pattern that may reflect post-COVID supply chain normalisation or a partial shift in routing rather than a genuine reduction in evasion activity.

  A persistent negative gap of this magnitude – where the importing country records significantly more trade than the exporting country – is the typical pattern of transshipment and origin masking. Product manufactured in third countries, likely in Asia or Eastern Europe, is routed through or re-invoiced via UAE intermediaries before entering South Africa, with the UAE declared as the country of origin. The UAE does not record this as a South Africa-bound export because, from its perspective, the product was never a UAE-origin good – it was re-exported or invoice-switched. South Africa, however, records it as a UAE-origin import based on shipping and customs documentation. This mechanism obscures the true origin of the product, complicates enforcement, and may facilitate undervaluation relative to the actual manufacturing cost.

- **Chinese Taipei – Trans-Shipment Transitioning**

  Chinese Taipei – with an average share of 2.3% in HS2202 imports (2019-2025) – presents the most analytically complex pattern in the HS2202 dataset. Large negative export-import gaps were recorded consistently from 2019 through 2022 (South Africa recorded substantially more Taiwanese-origin imports than Taiwan recorded

as South Africa-bound exports), with the cumulative negative gap over this four-year period reaching approximately -R49.3 million. This pattern is structurally similar to the UAE finding and is consistent with a Taiwanese-origin or Taiwanese-transited beverage product entering South Africa through indirect channels, with the origin partially obscured. From 2023 onwards, however, the gap transitions to positive –

- **Taiwan** records more exports to South Africa than South Africa records as imports, contributing a partial offset of approximately R11.1 million over 2023–2024. The net cumulative export-import gap over the full 2019–2025 period is -R38.3 million, reflecting the dominance of the earlier negative gap period over the more recent positive transition. This directional shift is analytically notable. It may reflect a normalisation of direct trade channels, increased enforcement scrutiny of Taiwanese-origin product at South African ports, or a shift in the routing of non-compliant product away from declared Taiwanese origin towards other intermediary declarations. The reasons for this transition cannot be determined from trade data alone, but the shift from a large negative to a modest positive gap within two years warrants monitoring.

  This transition suggests that the earlier discrepancies may have been driven in part by routing or reporting effects rather than persistent evasion alone.

- **Vietnam – Consistent Positive Gap, Widening Trend**

  Vietnam – with an average 0.7% share in HS2022 imports (2019-2025)- presents a clean, consistent, and worsening positive export-import gap across all seven years of the analysis period: Vietnam records more exports to South Africa than South Africa records as Vietnamese-origin imports every single year without exception. The annual gap has widened from R2.7 million in 2019 to R10.2 million in 2024, with a cumulative 2019–2024 gap of R32.7 million.

  The consistency and directionality of this finding across seven consecutive years distinguishes it from a statistical anomaly and points to a structural pattern of underrecording at the South African import stage. Vietnamese-origin NAB product – most plausibly within categories such as energy drinks and carbonated beverages – may be entering South Africa without being fully captured in formal import records. This is consistent with possible informal border entry, deliberate underdeclaration of volumes, or misclassification into lower-duty headings on arrival.

- **Eswatini – HPL Arbitrage and Cross-Border Underrecording**

  Eswatini (with a 2% average share in HS2022 imports) is South Africa's most structurally significant regional corridor for HPL-driven evasion. Unlike the origin-masking mechanisms identified in the UAE and Chinese Taipei corridors, the Eswatini signal reflects a different and more direct evasion dynamic: the absence of an equivalent sugar levy in Eswatini creates a persistent price differential that incentivises the diversion of untaxed beverages across a shared, high-permeability border into the South African market.

  Mirror trade analysis confirms a positive and widening export-import gap over the analysis period. From R3.7 million in 2019, the gap narrowed through 2020–2021 before widening consistently from 2022 onwards, reaching R11.9 million in 2024. The cumulative gap for 2019–2024 is R30.6 million.

  While modest in absolute terms, the trend is structurally coherent with the HPL arbitrage hypothesis. It is important to note that this finding captures only discrepancies in formally recorded trade flows. Informal cross-border flows – which do not appear in either country's trade statistics – are not captured and are likely to be materially larger.

Table 61: NAB Mirror Trade – HS Code Coverage

CORRIDOR	CUMULATIVE GAP (ZAR)	DIRECTION	SIGNAL TYPE	STRENGTH
UAE	-R595.1m	Negative	Origin masking / trans-shipment	Strongest
Chinese Taipei	-R38.3m	Negative→Positive	Trans-shipment transitioning	Moderate–strong
Vietnam	+R32.7m	Positive, widening	Under-recording / non-compliant product	Strong
Eswatini	+R30.6m	Positive, widening	HPL arbitrage / cross-border	Strong

Mirror trade analysis of HS 2202 identifies two structurally distinct evasion mechanisms operating simultaneously in South Africa's imported NAB market.

- **Origin masking and trans-shipment** – evidenced by the large persistent negative gaps in the UAE and Chinese Taipei corridors – involve product manufactured in third countries entering South Africa with intermediate-country origin declared, obscuring true provenance and potentially facilitating undervaluation. The combined negative export-import gap across these two corridors amounts to **-R633.4 million** over the analysis period.
- **Cross-border underrecording and HPL arbitrage** – evidenced by the consistent positive gaps in the Vietnam and Eswatini corridors – involves product leaving source countries bound for South Africa without being fully captured in formal South African import records. The combined positive export-import gap across these two corridors amounts to **+R63.3 million** over the analysis period.

These two sets of findings are not additive – they reflect structurally different evasion mechanisms operating through different channels and requiring different enforcement responses. The negative gap corridors point to origin misattribution and invoice manipulation at the formal import stage; the positive gap corridors point to volume underrecording and cross-border arbitrage, partly through informal channels that fall entirely outside formal trade statistics.

Taken together, the measurable mirror trade signals for HS 2202 represent a lower-bound, quantifiable indicator of import-channel evasion based solely on formal trade data. Actual illicit and non-compliant flows – particularly those moving through informal cross-border channels not captured in either country's trade statistics – are likely to exceed these figures materially. The Eswatini corridor, in particular, is assessed as significantly understating the true scale of HPL-driven cross-border diversion, given that informal border flows, by definition, do not appear in the bilateral trade data on which this analysis relies.

However, these signals remain concentrated in specific corridors rather than being indicative of systemic import-channel evasion across the sector.

HS 2101[39] – Coffee, Tea and Maté Extracts

HS 2101 was included in the NAB mirror trade analysis given the theoretical risk that finished ready-to-drink beverages – particularly iced teas and cold brew coffee drinks – may be misclassified as 2101 concentrate on

39 Extracts, essences and concentrates, of coffee, tea or maté and preparations with a basis of these products or with a basis of coffee, tea or mate; roasted chicory and other roasted coffee substitutes, and extracts, essences and concentrates thereof

import to avoid 2202 duty and HPL liability. Given the broad and heterogeneous nature of HS 2101, its applicability to NAB-specific illicit trade is inherently limited.

Mirror trade analysis was conducted for two corridors:

- India (7% average share, 2019–2025) – the India corridor shows close bilateral alignment across 2018–2025, with a cumulative export-import gap of less than 1% of total trade flows, consistent with timing differences and valuation adjustments rather than systematic evasion. No meaningful illicit trade signal was identified.
- Czech Republic (6% average share, 2019–2025) – the Czech corridor shows extreme year-to-year volatility that precludes reliable mirror trade interpretation. In 2019 and 2020, the export-import gaps amounted to R93.7 million and R124.0 million, respectively – discrepancies of approximately 90% between Czech recorded exports and South African recorded imports that are far too large to be explained by timing differences or classification variations alone.

  The most likely explanation is that this pattern reflects a data recording break or reclassification event on the South African import side in those years, after which the series largely normalises.

  The cumulative export-import gap of R216.5 million over 2018–2025 is entirely dominated by the two anomalous years and cannot be attributed to systematic evasion with any confidence. This corridor was therefore excluded from the findings on the grounds of data reliability.

HS 2101 is assessed as low priority for import-channel illicit trade. The India corridor – the only corridor yielding reliable bilateral data – shows near-perfect alignment consistent with compliant formal trade. The Czech Republic corridor, while showing a large nominal cumulative gap of R216.5 million, is not analytically usable due to data recording inconsistencies concentrated in 2019 and 2020.

If the misclassification risk warrants further investigation, a targeted customs classification audit examining domestic 2101 import declaration patterns relative to known RTD beverage market growth would be more appropriate than bilateral mirror trade analysis.

HS 2009 – Fruit Juices

HS 2009 covers fruit and vegetable juices, unfermented and not containing added spirit. China accounts for an average of approximately 62% of South Africa's 2009 imports over the analysis period, reflecting its dominant role as a global supplier of fruit juice concentrate, particularly apple juice and citrus-based products.

Given this share dominance and the global incidence of fruit juice adulteration, dilution and misclassification, the China corridor was selected as the primary mirror trade corridor for this heading.

Mirror trade analysis reveals close bilateral alignment across the full 2018–2025 period. The cumulative net export-import gap amounts to -R105.7 million over 2019–2025 – meaning South Africa records marginally more Chinese-origin imports than China records as exports – representing a discrepancy of approximately 1.1% of total trade flows.

The gap alternates direction year to year with no consistent trend or widening pattern, with large positive and negative swings in individual years (ranging from -R169.1 million in 2025 to +R139.6 million in 2024) that are consistent with normal timing differences, CIF/FOB valuation adjustments and minor classification variation rather than systematic evasion. The alternating direction and the absence of any sustained trend over eight years are the

key signals – a genuine illicit trade pattern would be expected to show directional consistency rather than random variation around zero.

HS 2009 is therefore assessed as low priority for import-channel illicit trade. HS 2009 imports are predominantly intermediate inputs – concentrates used in domestic juice manufacturing – rather than finished consumer beverages, thereby reducing the incentive to evade at the import stage relative to finished product headings.

The close bilateral alignment confirms that imports are largely recorded through formal channels. Any adulteration, dilution or substitution risk in this category is more likely to arise at the domestic processing, blending and packaging stage than as a detectable bilateral trade discrepancy. If further investigation is warranted, product testing and domestic compliance audits would be more appropriate analytical tools than mirror trade analysis.

Conclusion

Mirror trade analysis across the four NAB headings assessed – HS 2009 (fruit juices), HS 2101 (coffee and tea extracts), HS 2201 (plain water) and HS 2202 (sweetened and flavoured beverages) – does not produce findings of sufficient scale or consistency across headings to support the same structured quantification approach used in the food sector analysis.

Two of the four headings – HS 2009 (fruit juices) and HS 2101 (coffee and tea extracts) – show near-perfect bilateral alignment on reliable corridors and no meaningful illicit trade signal. The Czech Republic corridor under HS 2101 produces a large nominal cumulative gap of R216.5 million, but this is attributable to data recording inconsistencies in 2019 and 2020 rather than systematic evasion, and was excluded from the findings on data reliability grounds.

HS 2201 (plain water) shows modest and inconsistent signals across two corridors, with the most significant finding being a cumulative export-import gap of R7.5 million in the UAE corridor over 2019–2024 – material as a proportion of recorded trade, but modest in absolute terms and more consistent with trans-shipment dynamics than large-scale misclassification.

HS 2202 (sweetened and flavoured beverages) produces the most material findings across four corridors. The dominant signal – a cumulative negative export-import gap of R595 million in the UAE corridor over 2019–2024, consistent with trans-shipment and origin masking – reflects origin misattribution rather than volume underrecording and is not directly comparable to the positive gap signals that underpin the food sector matrix methodology. The positive gap corridors – Vietnam (R32.7 million) and Eswatini (R30.6 million) – provide the most direct evidence of volume underrecording and HPL arbitrage, but remain modest relative to the scale of the formal NAB market.

Based on the mirror trade evidence, import-channel illicit trade in the NAB sector does not appear to operate at a scale or through mechanisms that are readily quantifiable using the bilateral mirror trade approach.

This is consistent with the structural assessment established earlier in this section – that the primary fiscal risk in the NAB sector lies in domestic compliance failures, particularly HPL under-declaration and misclassification, rather than in import-channel evasion. The mirror trade findings support rather than contradict this conclusion.

Method 2: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

Overview

The relevant product category is P26 (244): Soft Drinks, which covers carbonated soft drinks, energy drinks, flavoured waters and other non-alcoholic ready-to-drink beverages. The supply table records a non-observed economy (NOE) supply figure representing output that enters the market through informal, unregistered or illicit channels.

Unlike mirror trade analysis, which captures only formal cross-border discrepancies, the SUT framework provides a system-wide estimate of unrecorded activity within the domestic economy.

NOE Supply: Unadjusted Findings

Table 62: Stats SA Supply-Use Table – P26 (244) Soft Drinks, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R66.0bn	R72.0bn	R73.1bn	R79.0bn	R83.8bn	R74.8bn
Total industry (intermediate) use	R15.5bn	R16.7bn	R18.5bn	R19.1bn	R18.9bn	R17.7bn
Exports	R3.7bn	R4.1bn	R2.2bn	R2.6bn	R2.9bn	R3.1bn
Household consumption	R45.6bn	R51.0bn	R51.5bn	R56.2bn	R60.5bn	R53.0bn
Non-observed use	R3.7bn	R4.0bn	R4.6bn	R4.8bn	R4.0bn	R4.2bn
Non-observed supply (unadjusted)†	R3.7bn	R3.7bn	R2.4bn	R1.3bn	R5.3bn	**R3.3bn**
NOE supply / HH consumption (unadjusted)	**8.1%**	**7.4%**	**4.6%**	**2.4%**	**8.8%**	**6.2%**

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. P26 (244) covers carbonated soft drinks, energy drinks, flavoured waters and other non-alcoholic ready-to-drink beverages.

The unadjusted NOE supply ratio exhibits notable year-to-year volatility, ranging from 2.4% in 2021 to 8.8% in 2022 – more pronounced than in other sectors assessed in this report.

The sharp decline in 2020–2021 likely reflects disruptions to supply chains during the COVID-19 pandemic, including lockdown restrictions on retail activity and the temporary closure of informal trading environments.

The 2022 spike – NOE supply nearly quadrupling from R1.3bn to R5.3bn in a single year – is most plausibly explained by a post-COVID catch-up effect combined with inflation pass-through in nominal values rather than a genuine structural increase in illicit activity.

Given this volatility, the five-year average unadjusted NOE supply of R3.3 billion is used as the primary analytical anchor rather than any individual year figure.

The unadjusted ratio of 6.2% is not, however, a direct measure of illicit activity – it captures a mix of legitimate informal production and genuinely illicit or non-compliant supply. A downward adjustment is required before the figure can be used as an illicit penetration estimate, as discussed below.

Illicit vs Informal Adjustment

The NOE supply figure captures a mix of activity that is not uniformly illicit. A downward adjustment is required to isolate the illicit and grey-market component from legitimate informal production.

The appropriate adjustment for soft drinks differs from capital-intensive, heavily regulated sectors such as CPC, where legitimate informal production is structurally limited.

Two sector-specific factors inform the adjustment:

- First, informal employment is meaningful in the beverages sector. Stats SA employment data indicate that informal employment accounts for approximately 15% of total beverages sector employment – higher than alcoholic beverages (8%) and indicative of a non-trivial legitimate informal production component.

  Small-scale producers of traditional beverages, unregistered juice makers and informal water bottlers are likely captured within NOE supply without constituting illicit activity.

- Second, the HPL creates a specific and documented incentive for registered producer non-compliance. Under-declaration of sugar content, misclassification of product categories and production outside the formal tax net are all mechanisms through which NOE supply in the soft drinks category may reflect deliberate fiscal evasion by producers who are not informal in the traditional sense but are non-compliant with HPL obligations. This component is unambiguously illicit and is a meaningful driver of NOE supply in this category.

The NOE supply components and their assessed illicit classification are summarised below:

COMPONENT	ILLICIT?	ASSESSMENT FOR SOFT DRINKS
Unregistered informal producers	Not strictly illicit	Moderate legitimate share – 15% informal employment
HPL evasion by registered producers	Illicit	Meaningful – structural incentive from levy differential
Counterfeit or smuggled product re-entering domestic supply	Illicit	Present but limited per mirror trade findings
Legitimate small-scale informal production	Not illicit	Present – traditional beverages, small producers

Balancing these considerations, an allocation factor of **65%** is used as the central estimate – consistent with the adjustment methodology applied across food sector product baskets, and reflecting a moderate but non-trivial legitimate informal component that is higher than CPC but lower than fresh produce or commodity food categories.

The 65% allocation reflects a midpoint between sectors with high informal production (e.g. fresh produce) and highly formal sectors, calibrated to the observed ~15% informal employment share in beverages.

Adjusted Supply-Use Figures

Applying the 65% adjustment factor to both NOE supply and NOE use yields the following adjusted figures:

Table 63: Stats SA Supply-Use Table – P26 (244) Soft Drinks, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R66.0bn	R72.0bn	R73.1bn	R79.0bn	R83.8bn	R74.8bn
Total industry (intermediate) use	R15.5bn	R16.7bn	R18.5bn	R19.1bn	R18.9bn	R17.7bn
Exports	R3.7bn	R4.1bn	R2.2bn	R2.6bn	R2.9bn	R3.1bn
Household consumption	R45.6bn	R51.0bn	R51.5bn	R56.2bn	R60.5bn	R53.0bn
Non-observed use (adjusted†)	R2.4bn	R2.6bn	R3.0bn	R3.1bn	R2.6bn	**R2.7bn**
Non-observed supply (adjusted†)	R2.4bn	R2.4bn	R1.5bn	R0.9bn	R3.5bn	R2.1bn
NOE supply / Household consumption (adjusted)	**5.2%**	**4.7%**	**3.0%**	**1.5%**	**5.7%**	**4.0%**
NOE use / Household consumption (adjusted)	5.2%	5.1%	5.8%	5.5%	4.3%	5.2%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. † Adjustment factor of 0.65 applied to both unadjusted NOE supply and NOE use figures to isolate the illicit and grey-market component from legitimate informal activity.

Applying the 65% adjustment factor to the five-year average unadjusted NOE supply of R3.3 billion yields a central adjusted estimate of illicit supply of R2.1 billion per year. A sensitivity range of 0.50–0.75 is applied to reflect uncertainty in the legitimate informal share:

Table 64: Adjusted Illicit Supply Estimate – P26 (244) Soft Drinks

SCENARIO	ILLICIT ADJUSTMENT FACTOR	ILLICIT ESTIMATE	ILLICIT SUPPLY AS % OF HOUSEHOLD CONSUMPTION
Lower bound	0.50 (50%)	R1,6 billion	3.1%
Central estimate	0.65 (65%)	R2,1 billion	4.0%
Upper bound	0.75 (75%)	R2,5 billion	4.7%

The adjusted ratio of 4.0% is well-calibrated relative to comparable food sector benchmarks – below the commodity food basket (7.0%), which reflects a large informal fresh produce sector, and modestly below the processed food basket (5.1%), consistent with the more structured formal supply chains that dominate beverage manufacturing in South Africa. This hierarchy is analytically coherent and supports the use of 4.0% as a defensible central penetration estimate.

NOE Consumption: Corroborating Signal

The adjusted use table provides a complementary signal. After applying the same 0.65 adjustment factor, adjusted non-observed consumption of P26 averages approximately R2.7 billion per year over 2018–2022, consistently exceeding the adjusted NOE supply figure of R2.1 billion over the same period.

The adjusted gap of approximately R600 million per year between adjusted non-observed consumption and adjusted non-observed domestic supply is the more analytically robust signal – it persists after stripping out the legitimate informal component on both sides and therefore is unlikely to be fully explained by routine informal retail activity alone.

This residual gap implies that a meaningful share of illicit soft drink consumption is not accounted for by domestic informal production alone.

The difference is likely to be supplied in part through other channels – including cross-border smuggling, grey-market imports and counterfeit product entering through informal distribution networks – broadly consistent with the limited and corridor-specific import-channel signals identified in the HS 2202 mirror trade analysis.

For reference, the unadjusted gap between NOE consumption (R4.2bn) and NOE supply (R3.3bn) is approximately R935 million per year. The adjusted figure of R600 million is the preferred analytical reference as it controls for the legitimate informal component on both sides and avoids double-counting informal retail activity as an illicit signal.

Box 1: The Eswatini HPL Arbitrage Corridor – How It Works

South Africa's Health Promotion Levy (HPL) – commonly referred to as the sugar tax – is charged on sugary beverages containing more than 4g of sugar per 100ml, payable at the point of manufacture or import. Eswatini does not have an equivalent levy, meaning identical products can be purchased at materially lower cost across the border.

This price differential creates a direct financial incentive for cross-border diversion. Beverages are purchased in bulk in Eswatini and transported across the shared border into South Africa – typically through high-volume informal trade routes such as the MR3 highway corridor – without declaration to SARS and without payment of the HPL on entry. The products are then sold into South Africa's informal retail sector, principally through spaza shops and street vendors, at a price below that of tax-compliant manufacturers but above the Eswatini cost price. The margin between these two prices – which represents the evaded levy – is retained by the importer.

The activity is illicit on three grounds: it involves non-payment of the HPL, non-compliance with South African labelling and regulatory requirements, and deliberate evasion of a fiscal measure specifically designed to reduce sugar consumption. It directly undermines both the revenue and public health objectives of the levy by making high-sugar beverages artificially cheaper and more accessible in the informal retail environment.

Enforcement is constrained by the volume and diversity of informal cross-border trade flows, which makes systematic monitoring of beverage consignments at the Eswatini border difficult. This structural enforcement gap is partially reflected in the mirror trade analysis, where the Eswatini corridor shows a persistent and widening positive gap – consistent with product flows that are partially visible in formal trade data but likely substantially larger in practice.

The NOE consumption figure is not used as a standalone penetration estimate. It is retained here as structural corroborating evidence of the distribution-channel dynamics identified in the mirror trade analysis, and as further support for the view that import-channel and cross-border flows contribute to the NAB illicit market in addition to the domestic production-side non-compliance captured in the NOE supply figure.

Conclusion

The SUT benchmark supports a central estimate of illicit penetration of approximately 4.0% of household soft drink consumption, equivalent to approximately R2.1 billion per year at 2018–2022 average prices.

This estimate is subject to the year-to-year volatility caveat noted above and should be interpreted as a directional indicator rather than a precise measurement. It is nonetheless consistent with the broader structural assessment established in this section – that illicit activity in the NAB sector, while secondary to tobacco and alcohol in absolute scale, is non-negligible and appears to be driven primarily by domestic production-side non-compliance, particularly HPL under-declaration, misclassification of sugar content and unregistered informal production operating outside the formal tax net.

Penetration Rate Matrix: Triangulated outcome

The two methods applied capture distinct dimensions of illicit NAB activity and produce a narrow, internally consistent range – reflecting the structured formal supply chains that dominate beverage manufacturing in South Africa and the modest scale of import-channel evasion identified through mirror trade analysis.

- The mirror trade analysis across all four NAB headings (HS 2009, 2101, 2201 and 2202) produces no import-channel signal of meaningful scale. Two headings – HS 2009 and HS 2101 – yield null findings consistent with compliant formal trade. HS 2201 produces modest and inconsistent signals not translatable into a volume estimate. HS 2202 produces the most material findings, but the dominant signal – the UAE negative export-import gap of R595 million – reflects origin masking and trans-shipment rather than volume underrecording and cannot be converted into a penetration rate. The only quantifiable import-channel signal – the Eswatini HPL arbitrage corridor under HS 2202 – is too small to yield a meaningful standalone estimate of penetration rate, serving only as a conservative import-side floor.
- The SUT benchmark of 4.0% – derived from adjusted NOE supply for P26 (244) after stripping out the estimated legitimate informal production component – anchors the domestic supply-side estimate. The gap between the near-zero import-channel signal and the 4.0% domestic supply estimate is not a methodological inconsistency but reflects the structural finding established throughout this section: illicit activity in the NAB sector is driven primarily by domestic production-side non-compliance – principally HPL under-declaration, sugar content misclassification and unregistered informal production – rather than cross-border import evasion.
- The OECD/EUIPO estimate that counterfeit food and beverages together account for approximately 3.5% of global trade in those categories, which is noted as a broad contextual reference. It is not directly comparable to a value-based domestic penetration rate but is broadly consistent with the SUT-derived central estimate and provides directional external validation.

Triangulated outcome. The base-case central estimate of 4.0% (~R2.1 billion per year) is anchored in the SUT benchmark and represents the primary analytical output - the mirror trade analysis providing corroborating rather than competing evidence. The sensitivity range of 3.1%–4.7% reflects uncertainty in the adjustment factor for legitimate informal production rather than methodological disagreement between the two methods. For the purposes of economic impact quantification, the upper-bound estimate of 4.7% (~R2.5 billion) has been adopted as the working estimate for all GDP, fiscal and employment impact modelling, reflecting the assessment that uncertainty in the adjustment factor warrants a conservative upward adjustment from the central estimate. The base case of 4.0% is retained for sensitivity context.

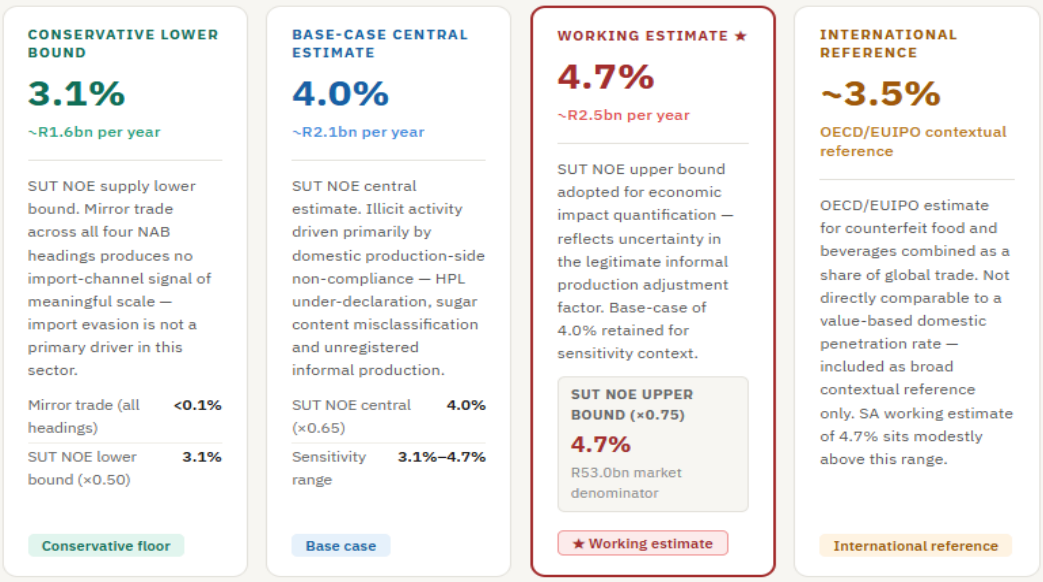


Table 65: Triangulated Estimate of Illicit NAB Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – MIRROR TRADE: ALL NAB HEADINGS ASSESSED					
HS 2009 – Fruit juices (China)	-R105.7m (near-zero net)	Null finding – alternating direction, no trend	Not applicable	–	–
HS 2101 – Coffee/tea extracts (India)	Near-zero	Null finding	Not applicable	–	–
HS 2201 – Plain water (UAE)	R7.5m	Origin masking – not volume signal	Not applicable	–	–
HS 2201 – Plain water (Mozambique)	R2.1m	Weak signal – reporting variation	Not applicable	–	–
HS 2202 – Sweetened beverages (Eswatini)	R30.6m	HPL arbitrage – volume signal	Not material as a standalone estimate	R53.0bn†	<0.1%
HS 2202 – Sweetened beverages (UAE)	-R595.1m	Origin masking – not volume signal	Not applicable	–	–
HS 2202 – Sweetened beverages (Vietnam)	R32.7m	Under-recording signal	Not material as standalone estimate	R53.0bn†	<0.1%
Combined all headings Import-channel floor				R53.0bn	<0.1%
PANEL B-SUT BENCHMARK: P26 (244) SOFT DRINKS **Domestic supply-side benchmark**					
NOE supply – unadjusted	R3.3bn avg	–	R3.3bn	R53.0bn †	6.2%
NOE supply – lower bound (×0.50)	R3.3bn avg	−50%	R1.6bn	R53.0bn	3.1%
NOE supply – central estimate (×0.65) ★	R3.3bn avg	−35%	R2.1bn	R53.0bn	4.0%
NOE supply – upper bound (×0.75)	R3.3bn avg	−25%	R2.5bn	R53.0bn	4.7%
PANEL C – INTERNATIONAL REFERENCE					
OECD/EUIPO counterfeit food and beverage estimate **Contextual reference only**					~3.5% of trade‡
SCENARIOS					
Conservative scenario **Sensitivity / SUT lower-bound**			~R1.6bn	R53.0bn	3.1%
Base-case central estimate			~R2.1bn	R53.0bn	4.0%
Upper-bound scenario ★ **working scenario**			**~R2.5bn**	R53.0bn	**4.7%**

★ *For the purposes of economic impact quantification, the upper-bound estimate of 4.7% (~R2.5bn) has been adopted as the working estimate for all GDP, fiscal and employment impact modelling. This reflects the assessment that the base-case central estimate of 4.0% may understate the true illicit penetration, given uncertainty in the legitimate informal production adjustment factor. The base-case estimate of 4.0% is retained for sensitivity context.*

† *Market denominator = average annual household consumption of soft drinks from Stats SA Use Table, 2018–2022 (R53.0bn).*

‡ *OECD/EUIPO estimate relates to counterfeit food and beverages combined as a share of global trade in those categories. It is not directly comparable to a value-based domestic penetration rate and is included as a broad contextual reference only.*

Source: ITC TradeMap; UN Comtrade; Stats SA Supply-Use Tables 2018–2022; OECD/EUIPO; own calculations.

The NAB Industry's Value Chain and Economic Linkages

South Africa's non-alcoholic beverage manufacturing value chain spans multiple interconnected stages, linking raw material inputs to final consumption through a combination of domestic production and selective international sourcing. The sector is a significant subsector within South Africa's broader food and beverage manufacturing industry, characterised by a relatively high degree of formal consolidation – dominated by a small number of large, vertically integrated producers – alongside a growing informal and semi-formal tier, particularly in distribution and small-scale production.

- **Upstream**, the sector relies primarily on domestically sourced inputs – water, sugar, carbon dioxide, flavourings and packaging materials – supplemented by imported concentrates, syrups and beverage bases. Major branded carbonated soft drinks and energy drinks are manufactured locally under franchise bottler arrangements, with proprietary concentrate imported from global brand owners such as The Coca-Cola Company and PepsiCo.

  This concentrate-based production model means that the bulk of the formal NAB market does not appear in finished-product import data, a structural characteristic with direct implications for mirror trade analysis.

  Finished-product imports – particularly energy drinks and niche beverage brands – represent a smaller but relevant segment of the market and are more directly exposed to customs duties and HPL compliance at the border."

- **At the production stage**, concentrate is blended with water, sweetener and carbonation at licensed bottling facilities, packaged and labelled for the South African market. The Health Promotion Levy is payable at this stage on products with sugar content exceeding 4g/100ml, making accurate declaration of sugar content a key compliance obligation.

  A parallel informal production tier – comprising small-scale, unregistered producers of traditional beverages, juice products and blended drinks – operates outside the formal tax and regulatory framework and contributes to the non-observed economy supply captured in the SUT analysis.

- **Downstream**, products move through distribution networks, including logistics providers, wholesalers and cash-and-carry outlets before reaching formal retail (supermarkets, convenience stores) and informal retail channels (spaza shops, street vendors, informal traders). The informal retail tier is the primary distribution channel for both legitimate lower-cost NAB products and illicit or non-compliant alternatives, and represents the point at which consumer exposure to non-compliant product is highest.

In addition, informal cross-border trade – particularly from neighbouring countries without equivalent sugar levies – provides an additional pathway for non-compliant products to enter the domestic market.

The sectors benefiting most directly from NAB manufacturing procurement include agriculture (sugar, fruit), manufacturing (packaging, glass, plastics, cans), wholesale and retail trade, and transport and logistics. These

linkages create multiplier effects across the broader economy, supporting employment and value creation beyond the core bottling and processing activities. The NAB sector also benefits from significant foreign direct investment, reflecting sustained confidence in the sector's growth trajectory.

The sector is also economically significant due to the high-frequency, discretionary nature of beverage consumption. NAB expenditure constitutes a consistent share of household consumption across income groups, with particular price sensitivity in lower-income segments – a characteristic that directly amplifies the demand-side incentives for illicit and non-compliant alternatives documented elsewhere in this section.

At the same time, the sector includes a meaningful informal component, particularly in distribution and small-scale production, which enhances accessibility and market reach but complicates regulatory oversight and creates pathways through which non-compliant product can enter the consumer market.

This structural profile is consistent with the empirical findings, in which mirror trade analysis shows limited import-channel discrepancies while Supply-Use Table estimates point to more substantial domestic non-compliance.

> **This structure is important for understanding the risk of illicit trade.** The combination of a concentrate-based formal production model, a dual formal-informal distribution system, and a levy structure that creates persistent price differentials between compliant and non-compliant product generates specific and well-defined illicit trade incentives – primarily at the domestic production and declaration stage, and secondarily through cross-border arbitrage and informal distribution channels.
>
> Unlike sectors where import-channel evasion dominates, the primary illicit trade risk in NAB appears to be embedded within the domestic supply chain rather than at the border.

Economic Impact of Illicit NAB Trade

Introduction

Illicit trade in non-alcoholic beverages imposes economic costs on South Africa's formal beverage sector that extend beyond the direct market displacement estimate.

The working estimate of approximately R2.5 billion per year represents output entering the market through informal, unregistered or non-compliant channels – but it does not translate directly into an equivalent GDP loss, and the relationship between illicit supply and formal sector displacement requires careful interpretation.

This distinction is particularly important in the NAB sector for two reasons.

- First, the formal NAB market is dominated by large, vertically integrated domestic producers operating under franchise bottler arrangements. As a result, illicit activity primarily displaces domestic manufacturing output and associated value added, rather than imports, making the impact on local production more direct than in import-intensive sectors.
- Second, a portion of non-observed economy (NOE) supply reflects legitimate informal production – including small-scale beverage producers and informal bottlers – which already generates economic activity outside formal channels. The net displacement of formal output is therefore lower than the gross NOE supply figure, which is why the 0.65 adjustment factor is applied before modelling economic impact.

Beyond displaced sales, illicit trade weakens the competitiveness of compliant beverage producers, erodes pricing power, discourages investment in quality and compliance infrastructure, and limits employment creation across the formal value chain.

Over time, sustained non-compliant competition – particularly through HPL evasion – undermines the fiscal integrity of one of South Africa's most productive domestic manufacturing categories.

The economic impact of illicit NAB trade operates through several interconnected channels:

- Lost domestic manufacturing output – compliant producers who incur the full cost of HPL compliance, quality assurance, labelling requirements and regulatory oversight are undercut by non-compliant or unregistered operators;
- Foregone tax revenue – VAT, the HPL, customs duties on undeclared imports and corporate income tax on displaced formal sales are lost to the fiscus, with HPL losses particularly material given its role as the primary fiscal exposure in this sector;
- Distorted distribution and retail margins – informal and grey-market supply displaces formal wholesale and retail channels, particularly in township and peri-urban markets where informal retail dominates;
- Employment and wage losses – illicit trade displaces activity from formal value chains, reducing employment opportunities and income generation from upstream procurement through bottling, logistics and formal retail; and
- Reduced investment in product quality and compliance – illicit and non-compliant products bypass safety standards, potentially introducing health risks related to unregulated ingredients, incorrect formulations or unsafe production conditions.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using the working estimate of R2.5 billion. Broader structural impacts on investment, compliance infrastructure and long-term competitiveness are discussed qualitatively but are not directly quantified.

Methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and does not include broader economy-wide multiplier effects in the central estimates. While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household spending and lower business activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors.

The direct-impact approach provides a conservative and transparent estimate of the economic costs associated with illicit trade. As a result, the impacts presented in this report should be interpreted as a lower-bound estimate of the true economic cost of illicit trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Non-alcoholic Beverages Trade

The non-alcoholic beverages sector contributes approximately R9.8 billion in direct government revenue through VAT, the Health Promotion Levy (HPL), personal income tax and other activity-related taxes.

Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system – with HPL evasion representing a particularly significant fiscal exposure given its targeted application to sugar-sweetened beverages.

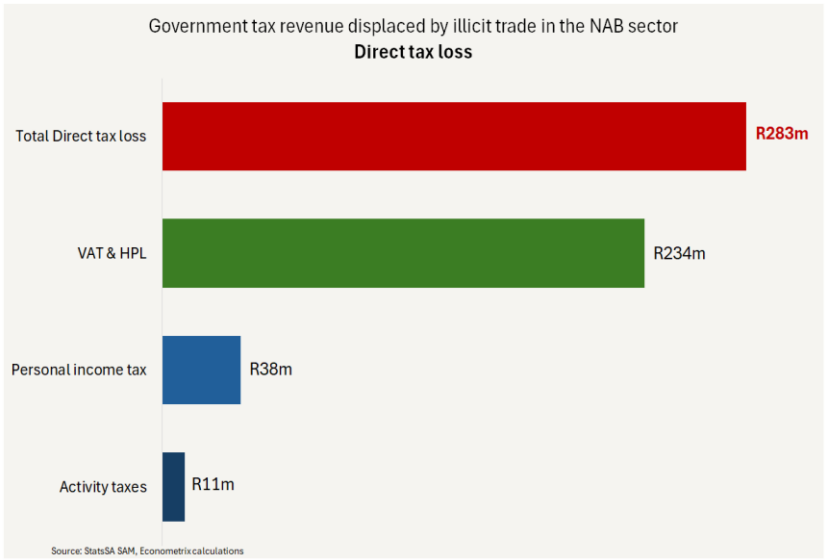


The fiscal suppression effect

Based on the working estimate of R2.5 billion, illicit NAB trade is estimated to result in approximately R283 million in direct tax losses annually.

Consequently, direct tax revenue from the sector could **increase from approximately R9.8 billion currently to an estimated R10.1 billion** if the demand currently captured by illicit trade were redirected to compliant operators.

The majority of this loss – approximately R234 million (83%) – arises from foregone VAT, HPL and related taxes on products.



This is consistent with the finding that illicit NAB activity is **driven primarily by domestic production-side non-compliance** – principally HPL under-declaration and sugar content misclassification – which directly erodes the sales tax base without necessarily involving customs or border evasion. Where undeclared imports do occur, additional VAT and customs-related revenue losses may compound this effect. Personal income tax losses are estimated at approximately R38 million, while activity-related taxes account for a further R11 million.

The fiscal argument for enforcement

The estimated **R283 million** annual tax loss represents revenue that could potentially be recovered through improved HPL compliance monitoring, more effective detection of sugar-content misclassification, enforcement against unregistered producers and, where applicable, stronger customs controls on undeclared beverage imports.

Unlike tax rate increases or new revenue measures, these gains could be achieved through more effective compliance and enforcement within existing tax and regulatory frameworks. Strengthening SARS audit capacity for HPL declarations, improving verification of sugar-content disclosures, enhancing intelligence-led inspections and reinforcing coordination between revenue authorities and food safety regulators would help recover lost revenue while promoting fair competition within the formal beverage sector.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit NAB Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit NAB trade using a three-step approach.

South Africa's NAB market is dominated by large, vertically integrated domestic producers. As a result, illicit trade displaces domestic manufacturing output and associated value added more directly than in import-intensive sectors – the impact falls primarily on domestic bottling, processing and distribution rather than on import channels.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the NAB sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R2.5 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R517 million, the estimate equates to approximately R1.2 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit NAB trade is estimated at R673 million annually, comprising two components:

- **Direct GVA displaced**: R439 million – derived by applying the sector's GVA-to-output ratio of approximately 37% (SUT-derived) to the displaced production output of R1.2 billion. This measures the loss of value added within the sector itself – concentrated in domestic bottling, processing and distribution.
- **Foregone taxes on products**: R234 million – taxes on sales associated with displaced formal activity, including VAT and HPL, that accrue to government rather than the sector and are therefore reported separately from sector GVA.

Key methodological notes

The R2.5 billion working estimate represents the study's upper-bound scenario and should be interpreted as the maximum plausible estimate of direct economic displacement attributable to illicit NAB trade. Impacts under the base-case estimate would be proportionally lower.

The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated. A portion of displaced demand may shift to other informal rather than formal supply channels.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- **South Africa's NAB sector is characterised by domestic manufacturing dominance**. Illicit and non-compliant activity – principally through HPL evasion, sugar-content misclassification and unregistered production – displaces formal-sector value added across bottling, processing, logistics and distribution without generating the associated tax, employment and investment contributions of compliant producers.
- **Where non-compliant operators undercut formal producers on price by avoiding HPL and compliance costs, the impact is particularly direct** – suppressing factory output, reducing investment incentives and placing pressure on formal employment across the domestic beverage manufacturing value chain.
- The estimated direct GVA displacement of R439 million is equivalent to approximately 2.6% of the sector's measured GVA of R17.1 billion. The impact is concentrated in a highly formalised, tax-paying manufacturing sector with strong domestic economic linkages.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R17.1bn
2	Illicit market estimate (formal-equivalent prices)	R2.5bn
	Less: trade and transport margins	–R517m
	= Displaced formal production output (at basic prices) *	R1.2bn
	× Sector GVA/output ratio (SUT-derived)	~37%
3a	= Direct GVA displaced by illicit trade	R439m
3b	+ Foregone taxes on products due to displaced activity	R234m
3c	= Direct GDP impact of illicit trade	R673m
COUNTERFACTUAL	Direct NAB GVA if illicit trade were eliminated	~R17.5bn

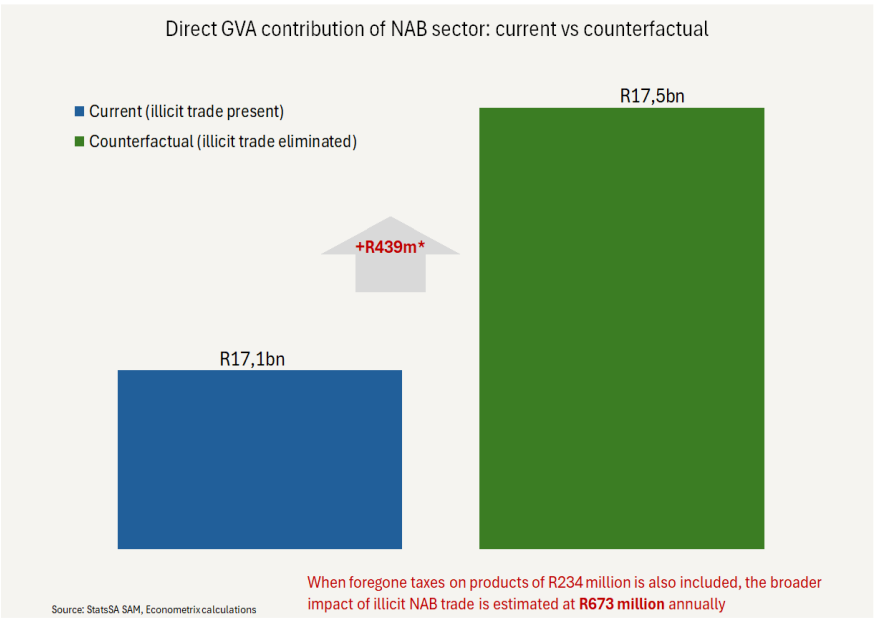
* After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R1.2 billion in displaced formal sector production output.

Counterfactual = estimated direct NAB sector GVA if illicit NAB trade were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R17.1bn	**R439m**	**R673m†**	**R17.5bn**	**R1.2bn**
0.3% of total SA GVA	annually through illicit NAB trade	Direct GVA displaced (R439m) *plus* foregone taxes on products due to displaced activity (R234m)†		annually by illicit NAB trade (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include VAT and HPL. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect. Approximately R2.5 billion of NAB consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying producers. Under the working estimate, this is estimated to displace approximately R1.2 billion in formal-sector production output, R439 million in direct sector GVA and R673 million in total GDP impact annually.



As a result, the measured economic contribution of the NAB sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Because the NAB sector is dominated by domestic production, the economic benefits of improved compliance accrue largely within South Africa.

Activity currently occurring through non-compliant channels could potentially translate into additional formal manufacturing output, investment and value added if captured by compliant producers.

Strengthened enforcement of HPL obligations, sugar-content declarations and producer registration requirements therefore has the potential to support economic growth while reinforcing fair competition within the sector.

Contribution To SA's Employment and the Impact of Illicit NAB Trade

- The NAB sector is characterised by a relatively high degree of formal employment, reflecting the capital-intensive, vertically integrated nature of domestic beverage manufacturing under franchise bottler arrangements.
- The NAB sector supports a significant **semi-skilled** workforce, with these categories accounting for approximately 40.8% of formal employment. As a result, illicit trade not only affects employment levels but also erodes specialised manufacturing, technical, logistics and distribution capabilities within the formal economy. Skilled = 20.1% - high
- **Unskilled** workers are estimated to account for a further 39.1% of direct formal employment, meaning that displacement also affects workers with limited alternative formal employment opportunities, particularly in bottling, distribution and related support activities.
- **Informal** workers account for approximately 8.6% (2,831) of total direct employment – lower than most other sectors in this study – reflecting the structured formal production base that dominates NAB manufacturing and distribution.
- While illicit trade primarily affects formal sector participants, sustained pressure from HPL-evading non-compliant producers ultimately constrains the sector's capacity to invest, expand and sustain formal employment across the beverage value chain.

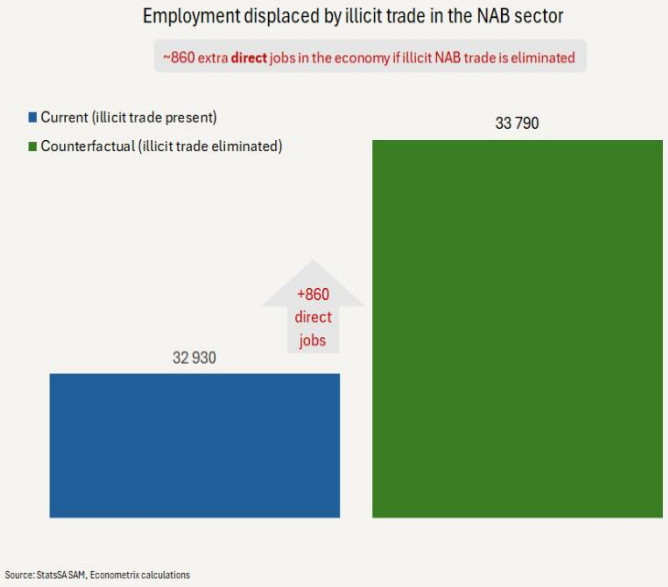
Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Semi-skilled formal job share
32,930 jobs	**~860 jobs**	**33,790**	**40.8%**
Formal: 30,098 (91.4%) Informal: 2,832 (8.6%)	Formal: 786 Informal: 74	*(formal and informal)*	Displacement falls disproportionately on semi-skilled workers — unskilled share: 39.1%.

The employment suppression effect

Approximately 32,930 people are employed by the NAB sector (formal and informal).

Applying the sector-specific direct GVA displacement ratio[40] (of 2.6%) to current employment levels suggests that approximately **860 direct formal and informal jobs are displaced** by illicit NAB trade, comprising around 786 formal jobs and 74 informal jobs.

Total direct-sector employment could potentially reach approximately 33,790 direct formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant producers.



[40] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

These jobs represent employment that could potentially be supported across the NAB value chain, including bottling, processing, logistics, distribution and retail, if illicit trade were reduced and displaced demand recovered by compliant operators.

The broader employment impact would extend well beyond the sector itself. The NAB sector currently **supports approximately 212,849 formal and informal jobs across the South African economy** through upstream and downstream value-chain linkages, indicating that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

The employment argument for enforcement

The employment impact of illicit NAB trade extends beyond lost sales. By diverting demand away from compliant manufacturers and distributors, illicit and non-compliant activity reduces incentives for investment, capacity expansion and workforce growth across the formal beverage sector.

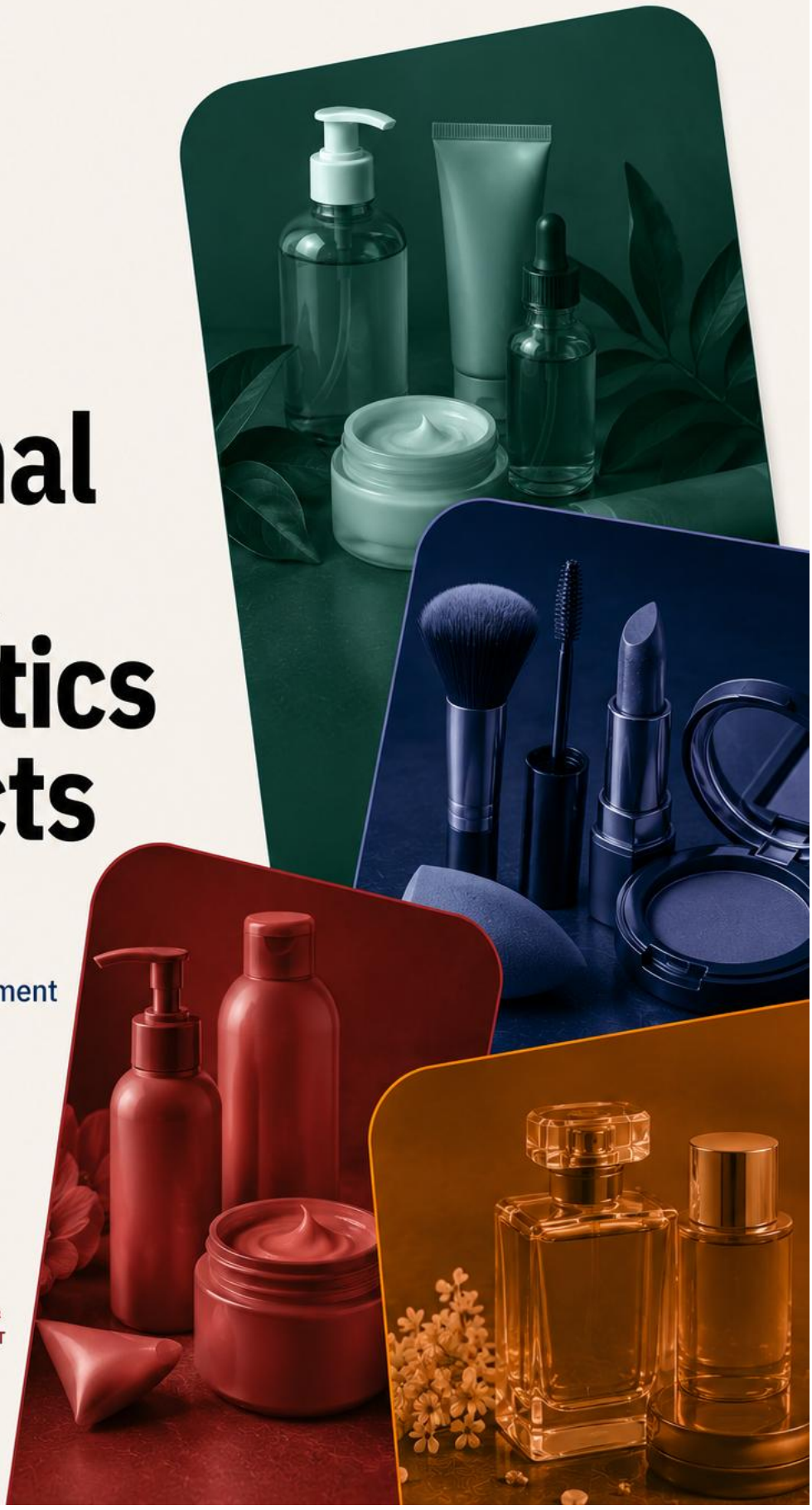
Given the sector's concentration of formal employment in structured bottling and distribution operations – where HPL evasion by non-compliant producers creates a direct and persistent cost disadvantage for compliant firms – reducing illicit trade could support employment retention and strengthen the long-term investment case for domestic beverage manufacturing.

SECTOR CHAPTER

12

Personal Care & Cosmetics Products

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R50.7bn
Annual cosmetics & personal care market in South Africa, 2019–2025 (central average estimate)

27,989
Direct employment (formal+informal); ~94.8% formal employment

R19.7bn
Direct sector GVA contribution; ~0.3% of SA GVA

R9.5bn
Current direct taxes supported by CPC sector; Taxes on products (VAT, duties): R6.9bn (72.6%)

PRIMARY FORMS OF ILLICIT TRADE

1 **Non-compliant products (regulatory breaches)** — Highest
Fails labelling, ingredient, packaging or safety requirements; can enter both formal and informal retail channels due to the absence of mandatory pre-market approval.

2 **Counterfeiting / fake branded goods** — High
Counterfeit perfumes, skincare and cosmetics that imitate premium brands; supported by SARS seizure evidence and presenting direct consumer health and safety risks.

3 **Smuggling (non-declared imports)** — Moderate
Undeclared imports entering through borders or informal routes; largely absent from customs records, making their scale difficult to quantify.

KEY DEMAND DRIVERS

- **Price** – illicit goods are significantly cheaper than compliant alternatives because they avoid import duties, VAT and regulatory compliance costs.
- **Brand aspiration** – demand for premium beauty and personal care brands at lower prices supports counterfeit and grey-market purchases.
- **High availability** – widespread availability through e-commerce platforms, social media sellers and informal retail channels.

KEY SUPPLY ENABLERS

- **Limited product registration and traceability** – the absence of a comprehensive product register makes it harder to distinguish compliant products from illicit or non-compliant goods. A registration mechanism developed with industry and NDOH could strengthen market surveillance and product traceability.
- Product testing costs of up to ~R40,000 create incentives to avoid compliance with labelling, ingredient and safety requirements.
- UAE (Dubai) re-export routing can complicate verification of product origin and declared customs value, weakening customs verification and trade traceability.

ILLICIT SUPPLY CHAIN

1 **Origin**
China, India, France, Turkey

▸

2 **Transit**
UAE (Dubai) – re-invoiced, re-labelled, origin obscured

▸

3 **Border Entry ★**
Durban · Cape Town · OR Tambo
Small parcels & customs fraud
Primary customs intervention point

▸

4 **Wholesale**
Informal distributors & online platforms

▸

5 **Retail**
Informal markets, e-commerce, social media

★ Border entry is a high-leverage fiscal intervention point, where customs misdeclaration, undervaluation and small-parcel routing can contribute materially to tax losses.

ILLICIT PENETRATION RATE — CPC (WORKING ESTIMATE)

4.5%
Illicit penetration rate

~R2.3bn
per year

SUT domestic supply-side ceiling adopted for all economic impact, fiscal and employment modelling. The base-case estimate (3%–4%) is assessed to understate true illicit penetration given the limited corridor coverage of the mirror trade analysis, the structural opacity of UAE re-export flows, and the documented presence of counterfeit and non-compliant CPC products across both formal and informal retail channels. Four independent methodologies — mirror trade, SUT benchmark, CTFA industry estimates and OECD/EUIPO benchmarks — triangulate to a range of 0.7%–4.5%.

FISCAL DISPLACEMENT — ILLICIT CPC TRADE

CURRENT SECTOR TAX BASE

R9.5bn

Annual government revenue from CPC sector

Sales taxes R6.9bn · PIT R2.0bn · Activity R0.6bn

→

ANNUAL TAX LOSS — ILLICIT TRADE

R215m

Direct fiscal cost of illicit CPC trade annually

VAT & duties R157m (73%) · PIT R44m · Activity R14m

NATURE OF THE LOSS

73% of loss is VAT & customs duties — a border enforcement problem.

Recoverable within existing tax frameworks — no new taxes required.

POTENTIAL IF DEMAND REDIRECTED

R9.7bn

Potential tax revenue if illicit CPC demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT CPC TRADE

R19.7bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R1.5bn

Formal-sector production output displaced annually

At basic prices

R436m

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R593m

Direct GDP impact annually

GVA R436m + taxes R157m

R20.1bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT CPC TRADE

27,989

direct jobs

Formal: 26,532 (94.8%) · Informal: 1,457 (5.2%)

~616

jobs displaced

Formal: 584 · Informal: 32

45.5%

semi-skilled formal share

Displacement falls primarily on semi-skilled workers, with a further 31.9% affecting unskilled formal workers

28,605

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were redirected towards compliant businesses

Current sector employment: 27,989 total



Formal: 26,532 (94.8%) Informal: 1,457 (5.2%)

GVA = *gross value added; measures the sector's direct economic contribution before production taxes.*
GDP impact includes foregone taxes on products. ·
Employment displacement applies a 2.2% direct GVA displacement rate to current direct employment levels. ·
Tax loss is a direct estimate; ***broader multiplier effects are not included to avoid double-counting.*** ·

OVERVIEW OF ILLICIT COSMETICS AND PERSONAL CARE (CPC) MARKET IN SA

Global context

Cosmetics and personal care (CPC) products have become one of the most heavily targeted categories in global illicit trade. The sector combines strong brand recognition, relatively high retail prices and comparatively low production costs, creating favourable conditions for counterfeiting and illegal imports. Cosmetic products are typically small, easy to transport and widely distributed through both formal retail channels and informal markets, making detection and enforcement consistently difficult. Advances in manufacturing and packaging technologies have further accelerated the growth of counterfeit cosmetics. Illicit producers are increasingly able to replicate product packaging, branding and appearance with a high degree of accuracy, allowing counterfeit products to closely resemble legitimate goods and making it difficult for consumers and retailers to distinguish between genuine and illicit products.

The scale of the problem is significant. Customs seizure data from the Organisation for Economic Co-operation and Development (OECD) and the European Union Intellectual Property Office (EUIPO) show that perfumery and cosmetics account for approximately 32% of global seizures of dangerous counterfeit goods, making them the most frequently seized category of harmful counterfeit products. More broadly, cosmetics and perfumery rank among the largest categories globally in customs seizures. In the European Union, the cosmetics sector is estimated to lose approximately €3 billion annually, equivalent to 4.8% of sector sales, due to counterfeiting. Globally, the counterfeit cosmetics market is estimated at approximately US$5.4 billion per year.

High-risk product categories and the digital shift

Counterfeit activity is concentrated in high-value, brand-sensitive and easily distributed product categories such as perfumes, skincare products, makeup, skin-lightening products and selected premium haircare lines. Historically associated primarily with luxury brands, counterfeit cosmetics have increasingly become a mass-market phenomenon.

A major driver of this shift has been the rapid growth of e-commerce, social media marketplaces and direct-to-consumer sales channels. Online platforms and third-party seller models have lowered barriers to entry for counterfeit operators, enabling illicit products to reach consumers at scale with limited oversight. Social media marketing, influencer promotions and standalone online stores have created additional routes through which counterfeit and non-compliant products can be distributed outside traditional retail channels.

Small-parcel and courier delivery networks have further increased enforcement challenges by allowing illicit products to move through fragmented supply chains that are harder to monitor and intercept. The growing popularity of so-called “dupes” or imitation products has also blurred the distinction between legitimate alternatives and potentially infringing or non-compliant products. Importantly, dupes can range from legitimate, lower-priced alternatives that replicate aspects of a premium product, such as its colour, appearance or functionality, to products that may raise intellectual property, advertising, consumer-protection or regulatory concerns. The nature and degree of imitation therefore determine whether a product presents an enforcement or regulatory issue.

Health and safety risks

Unlike many counterfeit consumer goods, illicit cosmetics can pose direct and potentially serious risks to consumer health. International testing of seized counterfeit beauty products has identified toxic substances, including lead, arsenic, cadmium, mercury and other hazardous chemicals, as well as microbial contamination and unsafe

manufacturing conditions. While these findings are based on international evidence rather than South African-specific testing, they illustrate the potential health risks associated with counterfeit and unregulated cosmetics entering illicit or informal supply chains. Because these products are applied directly to the skin and may be absorbed by the body, the circulation of counterfeit or unregulated cosmetics can present a significant public health risk.

Counterfeit fragrances have been linked to severe skin irritation and allergic reactions, while fake make-up products have been associated with eye infections, chemical burns and long-term skin damage. In South Africa, enforcement authorities have also identified illegally imported skin-lightening products containing banned substances such as hydroquinone at dangerous concentrations. In some cases, consumers have experienced severe skin burns and other adverse health effects following prolonged use.

South Africa's exposure to illicit CPC trade

South Africa is the largest importer of cosmetics and personal care products in sub-Saharan Africa and represents the region's most significant CPC consumer market. This scale, combined with several structural vulnerabilities, creates meaningful exposure to the entry and circulation of illicit CPC products.

The sector operates within a regulatory framework that includes the Consumer Protection Act and the Foodstuffs, Cosmetics and Disinfectants Act and associated subordinate legislation, alongside industry self-regulatory mechanisms. While compliance with requirements such as Good Manufacturing Practice (GMP), product testing and certification can impose costs, particularly for smaller manufacturers, legitimate businesses that comply with these requirements contribute to government revenue and expect the regulatory framework to be supported by adequate compliance monitoring and enforcement. Where enforcement capacity is limited, weaknesses in market surveillance and enforcement can create vulnerabilities to the circulation of counterfeit, substandard and non-compliant products.

Limited testing capacity further complicates regulatory oversight. Industry stakeholders have noted that the South African Bureau of Standards (SABS) does not consistently provide testing services across all product categories. In contrast, private laboratory testing can cost up to R40,000 per product. These costs may create barriers to compliance and increase the risk of untested or non-compliant products entering the market. Import duties on selected inputs and ad valorem taxes applied to certain luxury cosmetic products may further widen price differentials between compliant and illicit goods, strengthening incentives for customs misdeclaration, undervaluation and the distribution of non-compliant imports.

South African enforcement activity has highlighted the potential risks associated with illicit CPC products. Illegally imported cosmetics, including skin-lightening products containing banned substances, have been identified in the market and have been associated with health risks such as skin burns, facial swelling and respiratory complications. These documented risks are consistent with broader international evidence and illustrate the potential consumer-health consequences of illicit and non-compliant cosmetics entering South African markets.

Why this matters

Unlike many forms of illicit trade, counterfeit and illicit CPC products create both economic and public health harms. In addition to displacing legitimate manufacturers, importers, distributors and retailers, illicit products expose consumers to potentially dangerous substances while undermining confidence in brands, regulatory systems and product safety standards. Illicit CPC trade should therefore be viewed not only as a customs and tax-compliance challenge, but also as a consumer protection, public health and industrial competitiveness issue. Addressing the problem requires effective border controls, market surveillance, regulatory enforcement and greater consumer awareness of the risks associated with counterfeit and non-compliant cosmetic products.

STRUCTURE AND DRIVERS OF ILLICIT CPC TRADE

Forms of illicit CPC trade in South Africa: ranked assessment

While counterfeiting is widely recognised as a major global risk in the CPC sector, non-compliant products rank higher in the South African context based on the available evidence and industry input. The assessment reflects the nature of the regulatory and enforcement environment, the potential for sub-standard or mislabelled products to enter the market, and evidence from mirror-trade discrepancies and international studies. The ranking is indicative rather than definitive, given the limited quantitative data available on the relative scale of different illicit trade channels.

RANK	FORM OF ILLICIT TRADE	RELATIVE SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Non-compliant products (regulatory breaches)**	**Highest – dominant channel**	Includes products that fail to meet labelling, ingredient, packaging or safety regulations. Can enter both formal and informal retail channels, making detection difficult.
2	**Counterfeit/fake branded products**	**High – major illicit category**	Strongly supported by international evidence (OECD/EUIPO). Cosmetics are among the most frequently counterfeited consumer goods globally. Distributed via informal retail, e-commerce and cross-border channels.
3	**Smuggling (non-declared imports)**	**Moderate - High**	Fully undeclared goods entering through porous borders or misrouted shipping channels. Not captured in customs data, making scale difficult to quantify. Likely smaller than in excise goods but still present.
4	**Misdeclared and undervalued/unlawful imports**	**Moderate**	Mirror trade analysis identifies discrepancies in specific CPC categories (notably HS 3307), indicating potential misdeclaration of value or classification. Often overlaps with counterfeit and grey market imports.
5	**Parallel (grey market) imports**	**Low**	Genuine, branded products imported outside authorised distribution channels. May comply with product standards but bypass official supply chains, undermining pricing, compliance and tax structures.
6	**Local illicit production**	**Low**	Limited in CPC relative to other sectors. Most illicit activity is import-driven rather than domestically manufactured.

Note: Due to the absence of comprehensive quantitative data measuring the relative scale of different illicit trade channels in the cosmetics and personal care products sector, the ranking should be interpreted as indicative rather than definitive. It reflects an analytical assessment based on mirror-trade discrepancies, international evidence from OECD and EUIPO studies, and supporting qualitative, structural and other research evidence.

- Illicit trade in South Africa's CPC sector is primarily import- and compliance-driven rather than production-driven.
- Regulatory non-compliance and counterfeit products represent the dominant channels, consistent with global evidence.
- Misdeclaration and undervaluation of imports, as identified in the mirror trade analysis, play a supporting role and often occur alongside counterfeit or non-compliant goods.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Affordability pressures and price sensitivity	CPC products sold through illicit, counterfeit or non-compliant channels are often much cheaper than compliant branded alternatives, as they may bypass import duties, VAT, quality assurance, testing and regulatory compliance costs. In a price-sensitive consumer environment, especially under ongoing household budget pressure, many consumers prioritise affordability over provenance, product safety or regulatory compliance. This is particularly relevant in discretionary but high-frequency categories such as fragrances, skincare, haircare and cosmetics.	**Highest**
Aspirational demand for premium and branded products	Strong consumer demand for aspirational, premium, or internationally recognised beauty and personal care brands creates a significant pull factor for counterfeit and grey-market CPC products. Consumers seeking access to prestige skincare, fragrances, cosmetics and hair products may be drawn to lower-cost versions that mimic established brands, particularly where authentic products are perceived as unaffordable or inaccessible.	**High**
Wide availability through informal and online channels	Illicit and non-compliant CPC products are widely accessible through informal retail channels, independent traders, urban markets, small stores and increasingly through e-commerce platforms, social media sellers and peer-to-peer resale networks. This broad availability reduces friction in the purchase journey and normalises access to non-compliant goods, especially where products can be purchased casually alongside legitimate items.	**High**
Perceived equivalence between compliant and non-compliant products	In many CPC categories, consumers may perceive little or no meaningful difference between compliant and non-compliant products, particularly when packaging, scent, branding and visual presentation closely resemble genuine items. This weakens the incentive to pay a premium for compliant products and reduces the perceived downside of buying through informal or unauthorised channels.	**High**
Weak consumer deterrence due to authenticity uncertainty	Most consumers are not well positioned to verify whether a cosmetic or personal care product is authentic, legally imported, correctly labelled or compliant with health and safety standards. Counterfeit and non-compliant products can closely imitate genuine packaging and branding, making it difficult for consumers to distinguish legitimate products from illicit ones in-store or online. This does not directly create demand, but it significantly weakens a key deterrent to purchase.	**Moderate –High**
Low awareness of product safety and health risks	Many consumers may not fully understand the risks associated with non-compliant or counterfeit CPC products, including harmful or banned ingredients, contamination, incorrect formulation, counterfeit fragrances, unsafe skin-lightening agents, or inadequate labelling and usage instructions. Consumer awareness of the broader consequences – including tax leakage, damage to compliant businesses and distortion of the formal retail market – is also often limited.	**Moderate –High**
Perceived low risk of purchase and limited enforcement visibility	Purchasing counterfeit or non-compliant cosmetics and personal care products is generally perceived as low risk relative to other illicit categories. Consumer-facing enforcement is limited, visible penalties are rare, and the illicit sale of CPC goods is often normalised in informal retail and online environments. This reduces deterrence and allows illicit consumption to persist with little perceived consequence for end users.	**Moderate**
Beauty experimentation, trend-driven consumption and impulse buying	Demand in CPC categories is often influenced by trends, social media exposure, beauty experimentation and impulse-purchasing behaviour. Consumers may be more willing to trial lower-cost or unverified products when the purchase is perceived as low commitment, fashion-led or non-essential. This can increase susceptibility to counterfeit, diverted or unregulated products promoted as trendy, viral or premium substitutes.	**Moderate**

Supply Side Enablers of Illicit CPC Trade

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
Regulatory compliance cost avoidance Non-compliant and illicit operators avoid costs associated with product testing, labelling, ingredient compliance and regulatory certification. This creates a structural price advantage over compliant products.	**Limited product registration and traceability** The absence of a comprehensive product register can make it more difficult to distinguish compliant products from illicit or non-compliant products in the market. A registration mechanism, developed in consultation with industry and the NDOH, could support market surveillance by providing a reference against which products identified in the market can be checked.
Ad valorem taxes and import duty/VAT incentives Selected cosmetics categories (including perfumes, skincare and make-up) are subject to ad valorem excise duties (typically 5%–7%), in addition to VAT and import duties. This creates incentives for undervaluation, misclassification and under-declaration at import.	**Weak enforcement and limited deterrence** Limited inspection capacity at ports and weak retail enforcement reduce the probability of detection. Low arrest and prosecution rates further weaken deterrence and enable repeat non-compliance.
Transshipment through re-export hubs Routing goods through hubs such as the UAE (Dubai) or Hong Kong can enable re-invoicing, origin obfuscation and trade opacity, weakening bilateral customs verification and facilitating undervaluation.	**Fragmented regulatory oversight** Enforcement responsibilities are shared across SARS, the NRCS, SAPS, the Border Management Authority (BMA), the National Consumer Commission (NCC) under the Consumer Protection Act (CPA), and municipal authorities, with the Department of Health/NDOH also playing a role under the applicable cosmetics legislation. This multi-institutional framework can create coordination challenges, duplication, unclear accountability and inconsistent follow-through across the value chain, particularly where illicit products fall across different regulatory and enforcement mandates.
Low-cost, scalable global production of counterfeit and non-compliant CPC goods Low-cost manufacturing capacity – particularly in Asia – enables rapid, scalable production of counterfeit, substandard and non-compliant CPC products for export into weakly monitored markets.	**Organised criminal facilitation and corruption risks** Organised networks can facilitate the movement of illicit goods through ports, borders and distribution channels. Weak controls and corruption risks at high-volume entry points may further reduce the effectiveness of enforcement.
Tier 2 – Amplifying and Enabling Factors	
E-commerce and digital marketplaces Online platforms are a rapidly expanding channel for illicit CPC goods. International evidence indicates a high share of counterfeit cosmetics is distributed via e-commerce, where enforcement is more difficult and seller anonymity is high.	**Limited sector-specific customs intelligence and data visibility** Limited availability of disaggregated customs and trade data for CPC products can constrain the ability to identify sector-specific trade patterns and detect complex routing, re-invoicing and misdeclaration across trade corridors. CPC products are often grouped within broader chemical product classifications, limiting the granularity of available data for industry analysis and enforcement.
Informal retail distribution networks Informal traders, small retailers and open markets provide accessible, low-friction distribution channels for illicit and non-compliant products.	**Regulatory gaps in post-market surveillance** Enforcement is largely reactive and post-market, allowing non-compliant products to circulate before detection. Capacity constraints limit routine compliance monitoring.
Grey market and parallel imports Genuine CPC products may enter through unauthorised or unofficial import channels that bypass authorised distributors, local compliance controls or product stewardship systems, blurring the boundary between legal, non-compliant and illicit trade.	

Sources: OECD, WCO, industry and regulatory literature.

Note: Unlike some other sectors, CPC does not exhibit a sufficiently distinct third tier of enabling factors. The market is primarily shaped by a concentrated set of structural incentives and enforcement gaps, with secondary amplification through weaknesses in distribution and monitoring.

The Illicit CPC Supply Chain | Five-stage Flow

1 INPUTS / SOURCE

Finished Goods & Raw Ingredients — BEYOND SA JURISDICTION – LIMITED INTERVENTION

FINISHED GOODS SOURCES

Neighbouring southern African countries · Eastern Europe · selected Asian suppliers

KEY SOURCE MARKETS

China (dominant) · India · Turkey · South Korea (K-beauty) · Eastern Europe

PRODUCTS COMMONLY PRODUCED

Counterfeit branded perfumes and fragrances · Fake make-up · Non-compliant skincare and anti-ageing products · Counterfeit professional haircare · Skin-lightening products containing banned substances

PRODUCTION MODEL

Large-scale, low-cost factory production using cheap inputs and replica packaging · High-fidelity imitation of branded bottles, boxes and labelling · Limited or no testing, quality assurance or compliance.

GOVERNMENT ENFORCEMENT LEVER

Government-led international cooperation through the WCO, bilateral engagement with key source countries and stronger customs intelligence-sharing remain important for identifying and disrupting counterfeit cosmetics supply chains and complex cross-border trade routes.

2 TRANSIT

Transshipment & Re-export Hubs — TIER 1 OPACITY AND EVASION MECHANISM

KEY HUBS

Dubai (UAE) – dominant regional redistribution hub · Hong Kong · Singapore · Turkey

WHAT HAPPENS AT HUBS

Goods are re-invoiced, re-labelled, consolidated or repackaged for onward shipment · Origin may be obscured and documentation restructured · Free-trade zones weaken traceability and audit trails.

AFRICAN TRADE INTEGRATION

AfCFTA is expected to increase intra-African trade and regional value chains, potentially increasing the volume and complexity of goods moving through African transit corridors. Strong rules-of-origin verification, customs co-operation and information-sharing will be important to prevent misuse of preferential trade arrangements and maintain traceability.

GOVERNMENT CHALLENGE

Re-export routing can obscure origin, weaken the bilateral audit trail and reduce the effectiveness of mirror-trade detection.

Addressing this requires stronger customs co-operation, transit-country intelligence-sharing and scrutiny of re-export documentation.

3 BORDER ENTRY ★

Smuggled or Misdeclared Imports — ★ PRIMARY SARS/BMA INTERVENTION POINT

KEY ENTRY POINTS

Durban (primary) · Cape Town · OR Tambo · Beitbridge and inland borders

IMPORT MECHANISMS

Undervaluation of import values · misdeclaration of product categories · tariff misclassification · concealment within legitimate consignments · use of small parcels and e-commerce shipments to reduce visibility.

GOVERNMENT CHALLENGE

Border control remains a high-leverage intervention point for excise enforcement and revenue protection.

This requires stronger customs targeting, risk profiling, physical inspections, post-clearance audits and tighter control of parcel and courier channels.

4 DISTRIBUTION

Informal Wholesale & Redistribution — POST-BORDER DISTRIBUTION

KEY ACTORS

Informal wholesalers · Unlicensed distributors · Organised metro-based networks · Online marketplace sellers and social media traders · Grey-market importers

DISTRIBUTION MODEL

Illicit goods move through warehouse and wholesale networks and are often mixed with compliant stock · Digital distribution increasingly operates in parallel with physical supply chains, complicating traceability.

ENFORCEMENT IMPLICATION

Harder to detect than border entry, as products may appear outwardly legitimate once inside the domestic market.

Requires **market intelligence, distributor mapping, warehouse inspections, post-clearance audits, market surveillance** and coordinated enforcement across SARS, NRCS, SAPS and municipal authorities, with industry contributing market intelligence and information on suspected illicit activity.

5 RETAIL / CONSUMER ACCESS

Multiple Routes to Consumer — FINAL ACCESS POINT – HIGHEST HEALTH & COMPLIANCE RISK

Channel 1: Informal physical retail

Underground wholesale → Informal traders / urban markets / small retailers → Consumer

- Street markets, informal traders and small independent retailers remain the dominant traditional route, especially for fragrances, skincare and skin-lightening products.

Channel 2: Online platforms & social media

Distributors / social media sellers → Online marketplace / social media platform → Consumer

- Fastest-growing route, with products sold via marketplace listings, Instagram, WhatsApp and Facebook Marketplace.

Channel 3: Direct-to-consumer parcel delivery

Manufacturer / offshore seller → Courier / postal parcel → Consumer

- Low-value courier and postal consignments increasingly bypass retail intermediaries altogether.

GOVERNMENT CHALLENGE

Physical enforcement requires inspections of informal retail and small traders. Digital enforcement requires platform monitoring, seller verification and IP takedowns. Parcel-channel growth increases the need to review de minimis thresholds and strengthen customs targeting. These are government enforcement responsibilities, supported by the tax revenues contributed by compliant businesses.

Sources: South African and international sources, including WHO, WCO, Interpol, SARS, SAHPRA, OECD/EUIPO, UN Comtrade and ITC Trade Map; supplemented by Econometrix analysis and assessment.

SCALE OF ILLICIT CPC TRADE IN SA – PENETRATION RATE

Methodological Approach

Direct measurement of illicit trade is inherently difficult because the activity is designed to evade detection. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

No single method provides a complete estimate. Instead, the objective is to assess whether different indicators converge on a plausible range for illicit market penetration in South Africa's CPC sector.

In the CPC sector, the boundary between informal, non-compliant and illicit trade is less clearly defined than in more tightly regulated sectors such as pharmaceuticals, introducing additional uncertainty into penetration estimates. As a result, the methodology relies primarily on trade-based evidence and international benchmarking, supported by industry insight and a domestic market cross-check.

This analysis estimates illicit CPC trade penetration using three complementary benchmarks:

APPROACH	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror Trade Analysis	Potential import undervaluation, misdeclaration and undeclared imports	UN Comtrade / ITC Trade Map	Primary quantitative indicator of illicit market entry, particularly via import misdeclaration and undervaluation.
2. Supply-Use Table Benchmark	Directional indication of non-observed domestic activity	Stats SA Supply-Use Tables	Secondary cross-check of domestic non-observed activity, given the role of informal and blended distribution channels.
3. International Benchmarking	Plausible penetration ranges observed in comparable CPC markets	OECD, EUIPO, WHO, international studies	Provides a plausibility check against comparable CPC markets.

Taken together, these methods distinguish between:

- **illicit market entry**, reflected in trade and customs indicators; and
- **domestic market penetration**, reflected in industry evidence and non-observed activity captured in Supply-Use Table (SUT) estimates.

The final penetration range is derived from the convergence across methods and should be interpreted as a directional, evidence-based estimate of illicit CPC trade in South Africa.

Estimating the CPC Market Size

Direct measurement of the South African cosmetics and personal care (CPC) market is constrained by the absence of a sufficiently disaggregated official dataset. This analysis therefore uses Statistics South Africa retail sales data as a proxy, specifically the category "pharmaceutical, medical, cosmetic and toiletry goods."

As these data are published in real (inflation-adjusted) terms, they are converted to nominal values to align with the rand values used in the mirror trade analysis. In the absence of a CPC-specific retail deflator, the South African Reserve Bank (SARB) household consumer goods consumption deflator is applied as the closest available proxy for relevant price movements.

Because the Stats SA category combines pharmaceutical, medical, cosmetic and toiletry goods, an allocation is required to isolate the CPC component. This is informed by two official Stats SA sources:

- The **2022/23 Income and Expenditure Survey** indicates that personal care accounts for 0.3% of total household expenditure, compared to 0.5% for medicines and health products, implying a CPC share of approximately **38%** on a narrow expenditure basis.
- The **2023 Consumer Price Index basket weights** assign 1.01 to personal care and 0.90 to pharmaceutical products, implying a higher CPC share of approximately **53%** on a price-weight basis.

Based on these sources, a CPC allocation range of **35%–55%** is applied, with a central estimate of **45%**. Independent market research estimates the South African CPC market at approximately **R71 billion in 2025**, broadly consistent with the upper end of this range, supporting the plausibility of the upper bound and indicating that the central estimate is conservative.[41]

This approach yields an estimated average annual CPC market of approximately **R40 billion–R62 billion** over 2019–2025, with a central estimate of approximately **R50.7 billion**. The midpoint is used as the core denominator for the illicit trade penetration analysis, consistent with the use of average annual mirror trade estimates elsewhere in the report.

Table 66: Estimated CPC Market Size - South Africa

YEAR	RETAIL SALES: PHARMA & MEDICAL GOODS, COSMETICS & TOILETRIES (REAL)	HOUSEHOLD CONSUMER GOODS DEFLATOR*	ESTIMATED NOMINAL VALUE: RETAIL SALES: PHARMA & MEDICAL GOODS, COSMETICS & TOILETRIES	ESTIMATED CPC MARKET – 45% MIDPOINT
2019	R82.5bn	1.14	R93.9bn	R42.2bn
2020	R83.2bn	1.13	R93.8bn	R42.2bn
2021	R88.1bn	1.14	R100.7bn	R45.3bn
2022	R87.3bn	1.26	R109.8bn	R49.4bn
2023	R84.5bn	1.44	R121.4bn	R54.7bn
2024	R85.7bn	1.53	R131.2bn	R59.0bn
2025	R88.6bn	1.56	R138.3bn	R62.2bn
Central midpoint estimate of CPC consumption expenditure (45%)				R50.7bn
Lower bound estimate (35%)				R39.5bn
Upper bound estimate (55%)				R62.0bn

Source: Statistics South Africa; South African Reserve Bank; own estimates

* *While CPC-specific price dynamics may differ, the SARB household consumer goods deflator provides a reasonable approximation in the absence of a dedicated CPC price series.*

The R50.7 billion estimate represents the domestic CPC market and is used as the primary denominator throughout the penetration analysis. For certain components of the analysis, a narrower product-level denominator is also required. Personal hygiene products – including deodorants, shaving preparations and bath and shower goods – can be isolated as a sub-segment of the broader CPC market.

A DTIC industry report[42] indicates that personal hygiene products account for approximately 20% of total CPC market revenue. Applying this share to the average CPC market estimate of R50.7 billion yields an implied personal hygiene market of approximately **R10.1 billion per year.** Both denominators - R50.7 billion (full CPC market) and R10.1 billion (personal hygiene proxy) - are used in the penetration analysis that follows, with the appropriate denominator selected based on the product scope of each method.

[41] *Independent market research estimates the South African CPC market at approximately R71bn in 2025, broadly consistent with the upper end of the estimated range (R62 billion), supporting the plausibility of the estimates while suggesting that the R50.7bn central estimate remains conservative.*

[42] *http://www.thedtic.gov.za/wp-content/uploads/Investing-in-SA-Cosmetics-and-Personal-Care-Sector.pdf*

Method 1: Mirror Trade Analysis[43]

Conceptual basis

Mirror trade analysis compares reported exports with recorded imports to identify discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate under-recording of imports or other border-related irregularities.

These results should be interpreted as an indicator of potential irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains.

While international comparisons typically contrast free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 – see footnote). This removes the standard valuation-driven gap associated with freight and insurance, making observed discrepancies more informative – though not definitive – of underlying trade frictions or potential misreporting.[44]

HS code coverage

The mirror trade analysis focuses on HS categories most closely associated with branded cosmetic products and where illicit trade risks are highest.

HS CODE	PRODUCT CATEGORY
3303	Perfumes and toilet waters (excluding aftershave lotions, personal deodorants and hair lotions)
3304	Beauty or make-up preparations and preparations for the care of the skin, incl. sunscreen or suntan preparations (excl. medicaments); manicure or pedicure preparations
3305	Preparations for use on hair
3307	Shaving preparations, incl. pre-shave & aftershave products, personal deodorants, bath and shower preparations, depilatories and other perfumery, toilet or cosmetic preparations, n.e.s.; prepared room deodorisers, whether or not perfumed or having disinfectant properties

These categories capture the core branded cosmetics segments most vulnerable to counterfeiting, undervaluation and grey imports.

HS codes **3304, 3305 and 3307** account for the majority of analysed trade by value. HS **3303 (perfumes)** is included despite its lower recorded share, as fragrances are among the most counterfeited categories of cosmetic products. globally. International seizure evidence suggests that even a small, declared share of trade may mask undeclared or misreported flows.

Broader personal care goods, such as oral hygiene products (HS 3306) and soap and skin-washing preparations (HS 3401), are excluded from the core analysis. While these categories may be subject to undervaluation and parallel imports, their primary illicit risk relates to product compliance and regulatory non-conformance rather than customs

[43] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[44] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

misdeclaration. As such, they are not reliably captured by mirror-trade methods, which focus on discrepancies in declared trade values and volumes.

China–South Africa CPC trade corridor

The mirror-trade analysis focuses on the **China–South Africa trade corridor** because China remains a significant global manufacturing base for CPC products and a prominent source in international counterfeit consumer goods supply chains, even though it is not South Africa's largest direct import source across all CPC categories.

Based on **UN Comtrade** import data for **2019–2025**, China's share of South Africa's recorded imports across the four analysed CPC categories is as follows:

Table 67: China's Share of South Africa's CPC Imports by HS Code, 2019–2025 Average

HS CODE	PRODUCT DESCRIPTION	CHINA'S SHARE OF SA IMPORTS
3303	Perfumes & toilet waters	1%*
3304	Beauty & skincare products	8%
3305	Hair preparations	6%
3307	Shaving preparations, deodorants & bath & shower goods	11%
Average	All five categories	**7.0%**
Trade-weighted avg		**8.4%**

* *Although China's recorded share of South Africa's perfume imports is low (approximately 1%), fragrances are among the most counterfeited cosmetic products globally. A low recorded import share, combined with a high counterfeit rate, is consistent with patterns of misdeclaration, re-export routing or undeclared trade, and therefore warrants inclusion in the analysis.*

China accounts for approximately 7% on average (8.4% on a trade-weighted basis) of South Africa's CPC imports by value across the four HS codes.

While European countries such as Germany, France and Poland account for a larger share of South Africa's recorded CPC imports by value, these flows are predominantly associated with established branded supply chains and formal distribution channels. By contrast, the China–South Africa corridor captures a segment of trade more closely linked to contract manufacturing, private-label production and known counterfeit risk, making it more relevant for analysing potential import misdeclaration and grey-market activity.

Because the China corridor accounts for a relatively small share of total recorded CPC imports, the resulting mirror-trade estimates should be **interpreted as a conservative lower-bound indicator** of potential import-related irregularities rather than a comprehensive estimate of total illicit CPC trade.

Mirror trade results

Table 68: China–South Africa Cosmetics Trade: Mirror Analysis and Import Discrepancies (2019–2025)

HS CODE	PRODUCT CATEGORY	CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP: EXPORTS – IMPORTS(USD)	GAP (RAND)	GAP AS % OF EXPORTS
3303	Perfumes & toilet waters	$634.3m	$691.6m	-$57.3m	-R1.3m	-9%
3304	Beauty & skincare products	$7.7bn	$17bn	-$9.3bn	-R154.6m	-121%
3305	Hair preparations	$2.1bn	$3.7bn	-$1.6bn	-R27.1m	-77%
3307	Deodorants & personal care goods	$13.1bn	$8.4bn	$4.7bn	**R75.4m**	36%
Total	**HS codes (total)**	$23.5bn	$29.8bn	-$6.3bn	-R108m	-27%

Source: ITC TradeMap, Comtrade.

Across the four analysed CPC categories, three HS codes (3303, 3304 and 3305) show **negative mirror-trade gaps**, meaning that South Africa records higher imports from China than China reports exporting to South Africa. This pattern does not provide evidence of under-recording of imports on the South African side and is therefore not indicative of illicit trade in the conventional mirror-trade sense.

The aggregate China–South Africa gap is **negative (approximately –R108m)**, driven primarily by HS 3304 (beauty and skincare products) and HS 3305 (hair preparations). This pattern is consistent with **re-export routing**, whereby goods manufactured in China are shipped via intermediary hubs such as the UAE and recorded as originating from an alternative country upon import into South Africa.

Only **HS 3307 (deodorants and personal care goods)** shows a **positive mirror-trade gap (R75.4m)**, consistent with the standard pattern of exports exceeding imports. This category, therefore, provides the only observable indicator of potential under-recording of imports within the China corridor and serves as a **conservative lower-bound signal** of possible illicit activity.

Given the dominance of negative gaps across the remaining categories, the China corridor analysis is interpreted as providing **directional evidence of indirect trade routing rather than a standalone estimate of illicit penetration**. As a result, the UAE corridor serves as the primary upper-bound reference point for assessing the scale of import-related irregularities.

Evidence of Regional Re-export Supply Chains

The predominance of negative mirror-trade gaps suggests that a substantial share of cosmetics entering South Africa may be routed through intermediate re-export hubs rather than exported directly from their countries of origin, such as China.

Global CPC supply chains frequently involve regional redistribution centres, where goods are manufactured in one country, shipped to a logistics hub, and then re-exported to final destination markets. Trade data indicates that the United Arab Emirates (UAE), particularly Dubai, plays a significant role in this process for cosmetics entering African markets.

On an average annual basis over 2019–2024, the UAE reported **$14.8 billion** in CPC exports to South Africa across the four analysed categories, compared with **$2.0 billion** recorded by South African customs – an average annual

gap of **$12.8 billion**. The discrepancy is particularly pronounced in fragrances (HS 3303), where the gap accounts for approximately **95% of the UAE's reported exports**.

As the UAE functions primarily as a re-export and free-zone logistics hub, these discrepancies cannot be interpreted as illicit trade. Rather, they are likely to reflect a combination of re-exports from third countries, free-zone redistribution, re-invoicing, and shipments destined for broader regional distribution networks.

However, the scale and consistency of the gap provide strong evidence that a significant share of CPC products may be entering South Africa through **indirect and opaque trade routes**. This helps explain why bilateral mirror-trade analysis based solely on direct source countries is likely to understate the true scale of import-related irregularities in the sector.

Table 69: UAE–South Africa Cosmetics Trade: Mirror Analysis and Import Discrepancies (2019–2025)

HS CODE	PRODUCT CATEGORY	UAE EXPORTS TO SA (FOB)	SA'S IMPORTS FROM UAE (FOB)	GAP: EXPORTS - IMPORTS(USD)	GAP (RAND)	GAP AS % OF EXPORTS
3303	Perfumes & toilet waters	$10.8bn	$0.6bn	$10.2bn	R175.3bn	95%
3304	Beauty & skincare products	$2.4bn	$0.8bn	$1.6bn	R25.5bn	65%
3305	Hair preparations	$0.8bn	$0.2bn	$0.6bn	R9.3bn	69%
3307	Deodorants & personal care goods	$0.8bn	$0.3bn	$0.5bn	R8.3bn	63%
Total	**HS codes (total)**	$14.8bn	$2.0bn	$12.8bn	**R218.5bn**	87%

The UAE corridor exhibits consistently positive mirror-trade gaps across all categories, with UAE-reported exports materially exceeding South Africa's recorded imports. This pattern reflects the UAE's structural role as a global re-export and transshipment hub for cosmetics and perfumery products.

A significant share of the observed discrepancy is therefore attributable to re-routing – where goods manufactured in Asia are exported via the UAE and re-declared under alternative origins upon entry into South Africa – rather than to customs misdeclaration alone.

Given that the UAE gap captures re-routed flows from multiple origin countries, including China, it provides a broader view of import-related irregularities than direct bilateral analysis.

Accordingly, the UAE corridor provides strong structural evidence of indirect and opaque trade flows, highlighting the limitations of bilateral mirror-trade analysis based solely on direct source countries.

Mirror-Trade Bounds and Adjustment Framework

Mirror trade analysis has recognised limitations and should not be interpreted as a direct measure of illicit trade. Legitimate trade and reporting factors – including re-export routing, timing differences, classification mismatches and unrecorded informal trade – can generate bilateral discrepancies independently of fraud.

Table 70: Potential non-fraud contributors to bilateral trade gaps

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export via third countries (e.g. UAE, Hong Kong)	Reduces apparent SA imports from China	Significant – likely a major explanation for the negative gaps observed in several CPC categories
Trade recording timing differences	Minor bilateral misalignment	Small effect – unlikely to explain persistent multi-year divergence
Classification and reporting differences	Minor HS-level discrepancies	Limited to the HS4 level used here
Informal/undeclared trade not captured	Reduces SA's recorded imports	May explain a portion, particularly in informal and small-parcel channels

Because these factors can inflate observed trade gaps, mirror-trade estimates require adjustment to better approximate the share of the trade gap attributable to illicit activity. International studies, including those by the OECD and Global Financial Integrity, typically apply noise discounts of 30%–60%, depending on corridor characteristics.

For this analysis, corridor-specific adjustment ranges are applied to derive a bounded interpretation of potential illicit trade.

Panel A: China corridor – lower-bound indicator

- The China corridor (30%–50% adjustment range) reflects moderate re-export intensity and relatively direct trade flows. While China is a significant source of CPC goods and counterfeit product flows, bilateral trade data still captures a meaningful share of shipments.
- Within this corridor, only HS 3307 exhibits a positive mirror-trade gap and therefore provides an observable indicator of potential import under-recording. The average annual discrepancy is approximately R75.4 million.
- Penetration estimates for HS 3307 are expressed relative to the proxy personal hygiene segment (see CPC Market Size section) to ensure denominator alignment.
- On this basis, the mirror-trade methodology implies a conservative lower-bound estimate of illicit CPC import penetration of approximately **0.4%–0.7% of the relevant product segment**, **with a central estimate of approximately 0.5%.** This should be interpreted as a minimum observable level, with the true scale likely higher once broader product categories and indirect trade flows are taken into account.

Panel B: UAE corridor – upper-bound structural indicator

- The UAE corridor (50%–60% adjustment range) reflects high re-export intensity and the UAE's role as a major redistribution hub within global CPC supply chains. The observed bilateral gap is substantial, averaging approximately R218.5 billion annually, far exceeding the estimated size of the domestic CPC market.
- As this analysis spans all CPC-related HS codes, the full CPC market estimate (~R50.7 billion) is used as the relevant denominator.
- Even after applying a 50%–60% noise discount, the adjusted gap remains significantly above the estimated CPC market size. This confirms that the UAE corridor captures rerouted, multi-origin trade flows rather than just direct South Africa-bound shipments.
- Accordingly, these results should not be interpreted as direct penetration estimates, but rather as upper-bound structural indicators of import-related irregularities and supply chain opacity.

Table 71: Mirror-Trade Matrix – Average Annual, 2019–2025 - Summary

METHOD	GROSS GAP	ADJUSTMENT	ADJUSTED ESTIMATE	HS 3307 PROXY MARKET SIZE	INDICATIVE PENETRATION
PANEL A: CHINA CORRIDOR ONLY; *ONE* HS CODE – HS3307					
HS 3307 (raw average gap)	R75.4m	None	R75.4m	R10,1bn	0.7%
30% noise discount	R75.4m	−30%	R52.8m	R10,1bn	0.5%
40% noise discount	R75.4m	−40%	R45.2m	R10,1bn	0.45%
50% noise discount	R75.4m	−50%	R37.7m	R10,1bn	0.4%
PANEL B: UAE CORRIDOR – *ALL* HS CODES, UPPER-BOUND STRUCTURAL INDICATOR (NOT A DIRECT PENETRATION MEASURE)					
METHOD	**GROSS GAP ***	**ADJUSTMENT**	**ADJUSTED GAP (UPPER-BOUND)**	**HOUSEHOLD CONSUMPTION : ESTIMATED CPC MARKET**	**IMPLIED RATIO****
All codes - Raw gap	R218.5bn	None	R218.5bn	R50.7bn	431%
50% noise discount	R218.5bn	−50%	R109,2bn	R50.7bn	215%
55% noise discount	R218.5bn	−55%	R98,3bn	R50.7bn	194%
60% noise discount	R218.5bn	−60%	R87,4bn	R50.7bn	172%

Source: ITC TradeMap, SARB, DTIC, UN Comtrade; own calculations.

➔ Interpreting the bounds

The contrast between a narrow, observable lower bound and a structurally inflated upper-bound signal highlights the importance of interpreting mirror-trade results as a bounded range rather than a single-point estimate.

- The China corridor provides a conservative, directly observable estimate of potential under-recording of imports within a specific product segment. The UAE corridor, by contrast, provides broader structural evidence that a substantial share of CPC trade is routed through indirect, opaque channels that are not fully captured in bilateral trade statistics.
- The raw UAE mirror-trade gap is equivalent to approximately **431% of the estimated CPC market**, far exceeding plausible domestic consumption. This confirms that the gross bilateral discrepancy cannot be interpreted as a direct measure of illicit trade, but instead reflects the UAE's structural role as a re-export and free-zone transshipment hub within global CPC supply chains.

  Even after applying a 50%–60% noise discount, the adjusted range (approximately **172%–216% of the CPC market**) remains well above 100%.

Accordingly, the UAE results should be interpreted as an **upper-bound structural indicator of import-related irregularities and supply chain opacity**, rather than a conventional penetration estimate.

As a result, bilateral mirror-trade analysis based solely on direct trade partners is likely to understate the true scale of import-related irregularities.

Taken together, the China and UAE corridor results provide a bounded view of illicit trade dynamics. The China corridor implies a conservative lower-bound penetration estimate of 0.4%–0.7% of the personal hygiene segment, while the UAE corridor confirms that a substantial share of CPC products enters South Africa through indirect re-export channels.

These results indicate that while measured penetration based on observable discrepancies is relatively low, the underlying scale of import-related irregularities is likely materially higher.

Method 2: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

The relevant product category is P44 (353): *Soap, cleaning and polishing preparations, perfumes and toilet preparations*. The supply table records a non-observed economy (NOE) supply figure representing output that enters the market through informal, unregistered or illicit channels. The five-year average NOE supply for P44 over 2018–2022 is approximately R2.0 billion per year, rising to R2.3 billion in 2022.

Interpreting the NOE supply figure

The NOE supply captures a mix of activity that is not uniformly illicit. In principle, it includes the following components:

COMPONENT	ILLICIT?
Unregistered informal producers (small workshops, unlicensed blenders)	Not strictly illicit – informal but legal
Undeclared output from registered producers	Tax evasion – illicit
Counterfeit or smuggled product re-entering domestic supply	Illicit
Household production	Negligible in CPC

However, in the CPC sector, the **informal legitimate component is likely to be relatively limited** compared to sectors such as food or clothing, given the capital intensity and regulatory requirements of CPC manufacturing (including SAHPRA registration and labelling compliance).

On this basis, the NOE supply figure is treated as **broadly representative of illicit and grey-market activity** rather than legitimate informal production, and no explicit downward adjustment is applied. However, the estimate should be interpreted as an upper-bound approximation of illicit and grey-market activity.

Table 72: Stats SA Supply-Use Table – P44 (353) Soap and Perfumes, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R72.9bn	R75.4bn	R77.1bn	R77.7bn	R93.9bn	**R79.4bn**
Total industry (intermediate) use	R20.8bn	R22.0bn	R23.4bn	R19.9bn	R25.1bn	**R22.2bn**
Household consumption	R40.2bn	R42.2bn	R40.3bn	R44.2bn	R51.7bn	**R43.7bn**
Non-observed use	R6.4bn	R7.0bn	R6.6bn	R6.0bn	R6.5bn	**R6.5bn**
Non-observed supply	R1.8bn	R2.0bn	R1.8bn	R2.0bn	R2.3bn	**R2.0bn**
NOE supply as % of household consumption	4.5%	4.6%	4.4%	4.6%	4.4%	4.5%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. P44 (353) covers soap, detergents, cleaning preparations, perfumes and toilet preparations. Exports and general government consumption are zero or negligible across all years.

The NOE supply ratio is stable across the full five-year period, ranging narrowly between 4.4% and 4.6% with a five-year average of 4.5%. This consistency strengthens confidence in the benchmark as a reliable directional indicator rather than an artefact of a single survey year. It supports its use as the domestic supply-side ceiling in the penetration triangulation.

A further structural insight: the NOE consumption gap

The use table provides a *complementary signal*.

- Non-observed consumption of P44 – representing purchases through informal, unrecorded or grey-market channels – averaged approximately **R6.5 billion** per year over 2018–2022, materially **exceeding the NOE supply figure of R2.0 billion** over the same period.
- The **approximately R4.5 billion annual gap** between non-observed consumption and non-observed domestic supply implies that a **substantial share of informally consumed P44 products is not sourced from domestic informal producers.**

The difference must instead be supplied through other channels - most plausibly, **products entering through indirect import routes and distributed outside formal retail networks**.

This is **directly consistent with the mirror trade finding** that a meaningful share of CPC goods entering South Africa is routed through intermediary hubs and does not appear in formal bilateral trade records.

The NOE consumption figure is not used as a standalone penetration estimate, as it captures all informal consumption, including legitimate informal retail activity. It is retained here as structural corroborating evidence of the import routing dynamics identified in the mirror trade analysis, and as further support for the view that bilateral trade-based methods understate the true scale of import-related irregularities in the CPC sector.

Penetration Rate Matrix: Triangulated outcome

The methods applied in this analysis converge on a coherent range.

- The mirror trade analysis (China corridor, HS 3307) provides an observable lower bound of 0.4%–0.7%, independently corroborated by the CTFA industry estimate of 0.7%.

  The UAE corridor confirms material indirect trade flows but is not used as a penetration estimate.

- The Stats SA SUT benchmark of 4.5% - stable across five years of official national accounts data - anchors the domestic supply-side ceiling.

- The EUIPO international benchmark places the outer reference range at 4%–6%.

Triangulated outcome: Three independent methodologies converge on a range of 0.7%–4.5%. The mirror trade lower bound (0.7%–1.5%) and the adjusted SUT benchmark (4.5%) bracket the analytical base case at 3%–4%.

For the purposes of economic impact quantification, the upper-bound estimate of 4.5% (~R2.3 billion) has been adopted as the working estimate – reflecting the assessment that the base-case central estimate likely understates true illicit penetration given the limited corridor coverage of the mirror trade analysis, the structural opacity of UAE import flows, and the well-documented presence of non-compliant and counterfeit CPC products across formal and informal retail in South Africa.

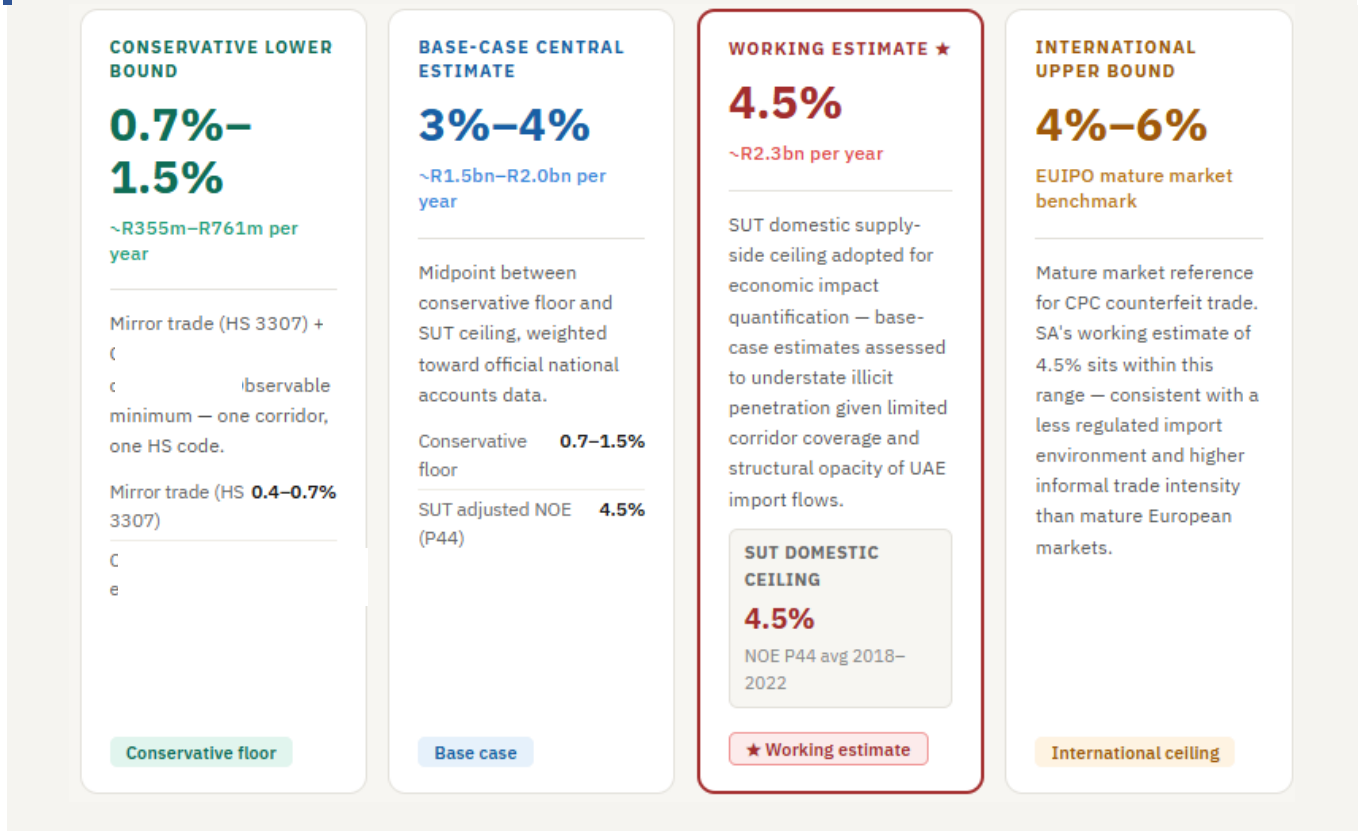


Table 73: Triangulated Estimate of Illicit CPC Trade Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – CHINA CORRIDOR (HS3307 ONLY) Conservative lower bound/floor					
Mirror trade – HS3307 - raw gap	R75.4m	None	R75.4m	R10.1bn†	**0.7%**
Mirror trade – 30% discount	R75.4m	−30%	R52.8m	R10.1bn	**0.5%**
Mirror trade – 40% discount	R75.4m	−40%	R45.2m	R10.1bn	**0.45%**
Mirror trade – 50% discount	R75.4m	−50%	R37.7m	R10.1bn	**0.4%**
PANEL B – UAE CORRIDOR (ALL 4 HS CODES) Structural indicator only – not in central estimate					
All codes – raw gap	R218.5bn	None	R218.5bn	R50.7bn	>100% ‡
50% discount	R218.5bn	−50%	R109.2bn	R50.7bn	>100% ‡
55% discount	R218.5bn	−55%	R98.3bn	R50.7bn	>100% ‡
60% discount	R218.5bn	−60%	R87.4bn	R50.7bn	>100% ‡
PANEL C – CORROBORATING BENCHMARKS					
SUT benchmark (P044 NOE) Domestic Ceiling	R2.0bn	No adjustment §	R2.0bn	R43.7bn§	**4.5%**
International benchmark (EUIPO) International Ceiling			~R2bn–R3bn	R50.7bn	**~4%–6%**
SCENARIOS					
Conservative Scenario Sensitivity/lower bound			~R355m-R761m	R50.7bn	0.7%-1.5%
Base-case Central Estimate			~R1.5bn-R2.0bn	R50.7bn	3%-4%
Upper-Bound Scenario ★ Domestic ceiling/working estimate			~R2.3bn	**R50.7bn**	**4.5%**

† *HS 3307 proxy market (R10.1bn) = 20% of average CPC market (R50.7bn), based on DTIC personal hygiene share of total CPC revenue.*

‡ *UAE-adjusted gaps exceed the total CPC market denominator. Structural indicator of import channel opacity only; not incorporated into penetration estimates.*

§ *SUT denominator = average P44 household consumption 2018–2022 (R43.7bn, Use table). NOE supply = average P44 non-observed supply 2018–2022 (R2.0bn, Supply table). Both are from Stats SA Supply-Use Tables; internally consistent within the SUT framework.*

★ *For the purposes of economic impact quantification, the upper-bound estimate of 4.5% (~R2.3 billion) has been adopted as the working estimate for all GDP, fiscal and employment impact modelling. This reflects the assessment that the base-case central estimate of 3%–4% – anchored primarily by the China corridor mirror trade lower bound and the SUT domestic ceiling –* ***is likely to understate true illicit penetration, given the limited corridor coverage of the mirror trade analysis, the structural opacity of the UAE import channel, and the well-documented presence of non-compliant and counterfeit CPC products across both formal and informal retail in South Africa.*** *The base-case range of 3%–4% is retained for sensitivity context.*



The CPC Sector's Value Chain and Economic Linkages

The cosmetics and personal care sector is characterised by a diverse, globally integrated value chain spanning agriculture, chemicals, manufacturing, logistics, wholesale and retail.

➔ **Upstream**, the sector draws on both natural and synthetic inputs. These include agricultural products such as essential oils, plant extracts and natural oils, as well as chemical inputs used in formulations, fragrances, preservatives and packaging. South Africa is relatively strong in selected natural and botanical inputs, particularly essential oils, which are both locally produced and exported.

These inputs feed into formulation, blending and manufacturing, where they are converted into finished products such as fragrances, skincare, haircare and toiletries. However, South Africa's CPC manufacturing base remains relatively limited within the broader manufacturing economy.

While some domestic production exists, particularly in lower-value or contract-manufactured segments, the market remains heavily reliant on imported finished goods, especially in higher-value branded categories such as perfumes, skincare and cosmetics.

Unlike sectors such as clothing, textiles, footwear and leather, which have experienced a long-term decline driven by deindustrialisation, the CPC sector is better characterised as a dual-structured market. It is dominated by multinational corporations (MNCs), which account for the majority of sales and benefit from global scale, strong brand equity, advanced R&D and established distribution networks, alongside a more fragmented base of local producers operating through own-brand production, contract manufacturing or licensing arrangements.

As a result, the sector is not structurally declining, but domestic manufacturing remains shallow and import-dependent, limiting the scale and depth of local value addition.

➔ **Downstream**, CPC products are distributed through a wide range of formal and informal channels, including pharmacies, supermarkets, beauty retailers, salons, e-commerce platforms and informal traders. End-use demand is driven primarily by household consumption, with additional demand from the professional beauty and wellness segment, including salons and spas.

Overall, the CPC sector forms part of a broader value chain linking upstream inputs, light manufacturing, import logistics, wholesale distribution and consumer retail.

While South Africa participates in selected upstream and downstream segments, the domestic market is shaped primarily by imported finished goods, multinational brand dominance and strong global supply chain integration.

> This structure is important for understanding the risk of illicit trade. South Africa's CPC market is vulnerable not only because of its reliance on imported finished goods, but also because products move through a broad and often fragmented value chain spanning international sourcing, customs clearance, wholesale distribution, formal retail, e-commerce and informal markets. Combined with strong demand for branded products and relatively weak product-level verification at point of sale, this creates multiple points at which counterfeit, grey-market, misdeclared or non-compliant goods can enter and circulate within the domestic market.

Economic Impact of Illicit CPC Trade

Introduction

Illicit CPC trade imposes high economic costs on South Africa's formal cosmetics and personal care sector. The working estimate of R2.3 billion per year (Table 7) represents expenditure diverted away from formal, tax-paying businesses and into illicit supply channels. However, this does not translate directly into an equivalent loss of GDP, nor does it fully capture the broader economic consequences of illicit trade.

This distinction matters because South Africa's CPC market is import-intensive. A significant share of formal CPC sales consists of imported product, which contributes to domestic value added only indirectly – through wholesale and retail trade margins, logistics, marketing, regulatory compliance and related business services – rather than through local manufacturing.

Illicit imports displace this activity without generating the associated domestic economic contribution. Where illicit goods compete directly with locally manufactured products, the impact is more severe: illicit trade suppresses output, reduces investment incentives, places pressure on employment and contributes to the erosion of domestic CPC manufacturing capacity.

Beyond displaced sales, illicit trade weakens the competitiveness of compliant firms, erodes pricing power and brand equity, discourages investment and limits employment creation. Industry survey evidence confirms that illicit trade has materially affected the South African CPC sector through revenue losses, the inability to expand or retain the workforce, increasing competitive disadvantage and long-term brand erosion.

The economic impact of illicit CPC trade operates through several interconnected channels:

- **Displaced manufacturing and packaging output** – domestic producers are undercut by misdeclared, undervalued or counterfeit imports, reducing production volumes and utilisation rates;
- **Reduced wholesale and retail activity** – formal businesses lose sales to illicit and non-compliant channels, reducing trade margins and economic activity within the formal sector;
- **Foregone tax revenue** – VAT, customs duties and other taxes associated with displaced formal activity are lost to the fiscus;
- **Employment losses** – illicit trade displaces activity from formal value chains, reducing employment opportunities and income generation;
- **Suppressed investment and brand development** – persistent illicit competition weakens incentives for business expansion, product development and long-term investment; and
- **Organised trade crime and customs fraud** – illicit CPC trade is linked to broader networks involved in smuggling, customs evasion and the circulation of non-compliant and potentially dangerous products.

The impact modelling that follows quantifies the measurable direct effects of illicit trade on output, tax revenue and employment using the working estimate of R2.3 billion, with sensitivity analysis applied across the conservative (0.7%–1.5%) and base-case (3%–4%) scenarios. Broader structural impacts on investment, industrial development and long-term competitiveness are discussed qualitatively but are not directly quantified.

Methodological note

This study focuses on the direct economic, employment and fiscal impacts of illicit trade and **does not include broader economy-wide multiplier effects in the central estimates.**

While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced household spending and lower business activity, quantifying these effects introduces a greater risk of overlap and double-counting across sectors. The direct-impact approach provides a **conservative and transparent estimate** of the economic costs associated with illicit trade. As a result, the impacts presented in this report should be interpreted as a **lower-bound estimate of the true economic cost of illicit CPC trade to South Africa.**

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit CPC Trade

The CPC sector contributes approximately R19.7 billion in direct GVA and generates approximately R9.5 billion in direct government revenue through VAT, customs duties, personal income tax and other activity-related taxes. Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.

Direct formal sector taxes — current

R9.5bn

Taxes on products (VAT, duties): R6.9bn (72.6%)
PIT → R2.0bn
Activity → R618m

VAT / duties · PIT · Activity taxes

Potential tax revenue if illicit demand redirected to compliant operators

R9.7bn

Estimated direct government tax revenue if demand captured by illicit CPC trade were fully redirected to compliant operators

Direct tax loss from illicit trade

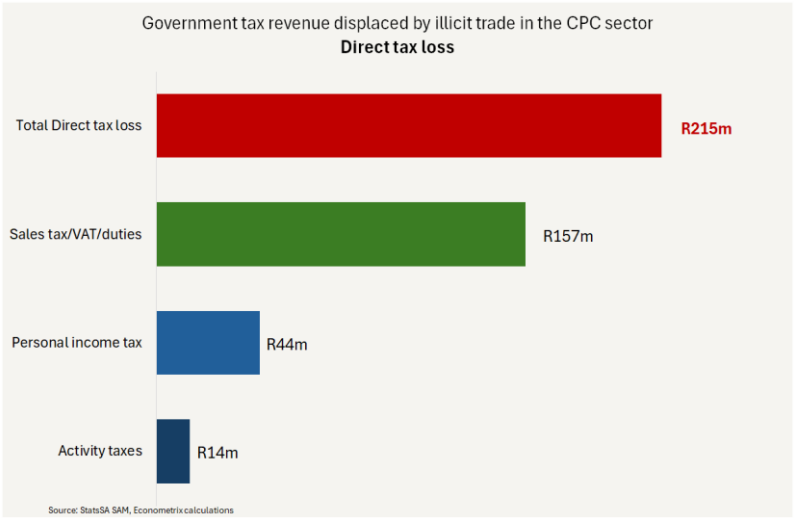
R215m

Taxes on products (VAT/duties): R157m (73%)
PIT → → -R44m
Activity taxes → -R14m

VAT / duties (lost) · PIT · Activity taxes

The fiscal suppression effect

Based on the estimated size of the illicit CPC market (approximately R2.3 billion), **illicit trade is estimated to result in around R215 million in direct tax losses annually.**



Consequently, direct tax revenue from the sector **could increase from approximately R9.5 billion currently to an estimated R9.7 billion** if the demand currently captured by illicit trade were redirected to compliant operators.

The majority of this loss – approximately R157 million (73%) – arises from foregone VAT and customs duties, consistent with the finding that illicit CPC trade is predominantly import-driven and characterised by customs misdeclaration, undervaluation and other forms of border-related tax evasion. **Personal income tax** losses are estimated at approximately R44 million, while activity-related taxes account for a further R14 million.

The fiscal argument for enforcement

The estimated R215 million annual tax loss represents revenue that could potentially be recovered through stronger customs enforcement, enhanced importer compliance and more effective detection of customs undervaluation, misdeclaration and illicit imports. Given the prevalence of counterfeit cosmetics, fragrances and personal care products, improved market surveillance, product authentication and enforcement against non-compliant distributors and online sellers would further strengthen tax compliance and protect compliant businesses.

Unlike tax rate increases or new revenue measures, these gains could be achieved through more effective enforcement of existing customs, tax and product regulatory frameworks. Strengthening risk-based customs inspections, post-clearance audits, intelligence-led targeting and coordination between SARS, the Border Management Authority, SAPS and product regulators would help reduce illicit imports while supporting legitimate trade, protecting consumers and reinforcing fair competition within the formal CPC sector.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit CPC Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit CPC trade using a three-step approach.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the CPC sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R2.3 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins (estimated at R650 million), the estimate equates to approximately R1.5 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit CPC trade is estimated at R593 million annually, comprising two components:

- **Direct GVA displaced**: R436 million – derived by applying the sector's GVA-to-output ratio of approximately 29% (SUT-derived) to the displaced production output of R1.5 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products: R157 million** – comprising VAT, customs duties and other taxes on products associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA.

Key methodological notes

- The R2.3 billion illicit market estimate represents the study's working estimate and should be interpreted as the maximum plausible direct economic cost of illicit CPC trade. Impacts under the base-case estimate would be proportionally lower.
- The analysis estimates economic activity currently displaced by illicit trade, and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.
- **South Africa's CPC market is import-intensive. A significant share of formal CPC sales reflects imported products, contributing to domestic value added primarily through wholesale and retail trade margins, logistics, marketing and regulatory compliance rather than through local manufacturing. Consequently, the GDP impact reflects the domestic value added displaced by illicit trade rather than the full retail value of illicit sales.**
- The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered. However, these have not been quantified in the central estimate to avoid double-counting and to maintain a conservative approach.

Key results

- Illicit imports displace domestic value added across manufacturing, wholesale trade, logistics, warehousing, retail and related business services, without generating the associated formal-sector economic contribution.
- Where illicit goods compete directly with locally manufactured products, the impact is more severe. In these cases, illicit trade suppresses output, reduces investment incentives, places pressure on employment and contributes to the erosion of South Africa's domestic CPC manufacturing base.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	**Formal sector direct GVA baseline (current, illicit trade present)**	**R19.7bn**
2	Illicit market estimate (formal-equivalent prices)	**R2.3bn**
	Less: trade and transport margins	**–R650m**
	= Displaced formal production output (at basic prices)	**R1.5bn***
	× Sector GVA/output ratio (SUT-derived)	**~29%**
3a	**= Direct GVA displaced by illicit trade**	**R436m**
3b	**+ Foregone taxes on products due to displaced activity**	**R157m**
3c	**= Direct GDP impact of illicit trade**	**R593m**
Counterfactual	**Direct CPC GVA if illicit trade were eliminated**	**R20.1bn**

* → After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R1.5 billion in displaced formal sector production output.

Counterfactual = estimated direct CPC sector GVA if illicit CPC trade were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal sector production output displaced
R19.7bn	**R436m**	**R593m†**	**R20.1bn**	**R1.5bn**
0.3% of total SA GVA	annually through illicit CPC trade	Direct GVA displaced (R436m) *plus* foregone taxes on products due to displaced activity (R157m)†		annually by illicit CPC trade (at basic prices)

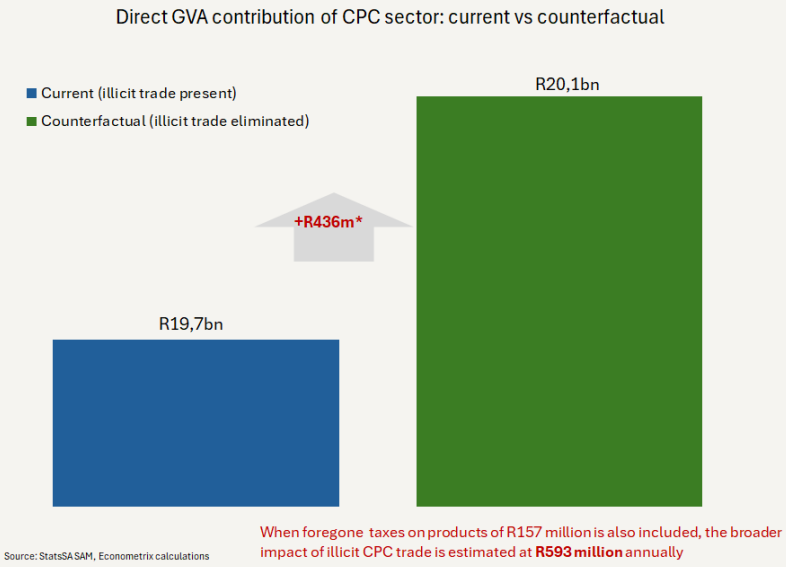
†GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal sector activity. Taxes on products include VAT, customs duties and any other product taxes associated with CPC products. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R2.3 billion of CPC consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying businesses.

Under the working estimate, this is estimated to displace approximately R1.5 billion in formal-sector production output, R436 million in direct-sector GVA, and R593 million in total GDP impact annually.

When foregone taxes on products of R157 million are included, the broader GDP impact of illicit CPC trade is estimated at R593 million annually.



As a result, the measured economic contribution of the CPC sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are taken into account. However, these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Because the CPC sector combines domestic manufacturing with a substantial import component, the economic benefits of improved enforcement extend beyond recovering customs duties and VAT.

More effective detection of customs misdeclaration, undervaluation, counterfeit products and other forms of illicit trade would redirect demand towards compliant manufacturers, importers and distributors, supporting higher formal-sector production, investment and value added across manufacturing, wholesale trade, logistics, warehousing and retail.

Strengthening customs risk profiling, post-clearance audits, market surveillance and intelligence-led enforcement therefore has the potential to support economic growth while reinforcing fair competition, protecting consumers from substandard and counterfeit products, and strengthening the long-term competitiveness of South Africa's compliant CPC sector.

Contribution To SA's Employment and Impact of Illicit CPC Trade

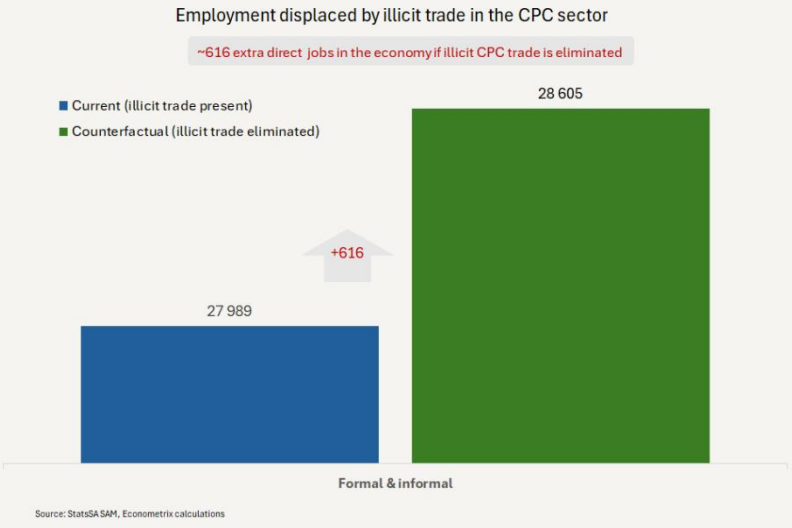
- The CPC sector (soap, cleaning products, perfumes and personal care products) directly supports approximately 27,989 jobs, comprising 26,532 formal and 1,457 informal jobs.
- The sector is highly formalised, with 94.8% of direct employment in the formal economy, reflecting the regulatory requirements, quality standards and skills intensity of CPC manufacturing, distribution and retail.
- Semi-skilled workers account for 45.5% of formal employment, while a further 31.9% are unskilled. As a result, illicit trade disproportionately affects production, warehousing and distribution occupations, including workers with relatively limited alternative formal employment opportunities.
- By diverting demand away from compliant manufacturers, importers and retailers, illicit trade suppresses investment, production growth and employment creation across the formal CPC value chain.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment if illicit demand shifted to compliant businesses	Semi-skilled formal jobs share
27,989 jobs Formal: 26,532 (94.8%) Informal: 1,457 (5.2%)	**616 jobs** Formal: 584– Informal: 32	**28,605** *(formal and informal)*	**45.5%** Displacement falls primarily on semi-skilled workers, with a further 31.9% affecting unskilled formal workers.

The employment suppression effect

The CPC sector employs approximately 27,989 people.

Applying the sector-specific direct GVA displacement ratio of 2.2%[45] to current employment levels suggests that approximately 616 direct formal and informal jobs are displaced by illicit CPC trade.



Total **direct-sector (formal and informal) employment could potentially reach approximately 28,605** direct jobs if demand currently captured by illicit channels were redirected towards compliant businesses.

These jobs represent employment that could potentially be supported within the CPC value chain if demand currently captured by illicit channels were redirected towards compliant businesses.

The broader employment impact would extend well beyond the sector itself. **The CPC sector currently supports approximately 264,923 formal and informal jobs across the South African economy** through upstream and downstream value-chain linkages, highlighting that the wider employment benefits of reducing illicit trade would not be confined to direct sector employment.

[45] *Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

The employment argument for enforcement

The employment impact of illicit trade extends beyond lost sales. By diverting demand away from compliant manufacturers, wholesalers and retailers, illicit trade reduces incentives for investment, business expansion and workforce growth.

Given the sector's concentration of skilled and semi-skilled workers in formal manufacturing and retail, reducing illicit trade could help retain employees and strengthen one of South Africa's more skills-intensive consumer goods sectors.

SECTOR CHAPTER

13

Pharmaceutical Products

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R87.8bn
Annual average pharma consumption
(SARB, 2019–2025)

45,537
Direct employment (formal + informal)
95% formal employment

R32bn
Direct sector GVA contribution
~0.5% of SA GVA

36.9%
Import share of total output
Among highest import dependency across sectors studied — primary motivation for illicit.

PRIMARY FORMS OF ILLICIT TRADE

1	**Unlawful imports.** Customs misdeclaration of tariff classification, customs value or quantity. India corridor gap R439.6m (HS3004); all corridors ~R1.4bn; dominant channel by value.	Highest
2	**Counterfeit, falsified and substandard medicines.** SARS seizure evidence; counterfeit and falsified medicines; direct patient safety risk.	High
3	**Online and small-parcel pharmaceutical trade.** Unregulated e-pharmacy; social media sales; rapidly growing channel; low inspection rates for courier and postal consignments.	High

KEY DEMAND DRIVERS

- **Access & affordability** — transport costs, waiting times, medicine stockouts and supply disruptions push consumers towards informal channels.
- **Treatment continuity** — chronic-use patients seek uninterrupted access when legitimate supply is unavailable or delayed.
- **Privacy & stigma** — unregulated online and informal channels offer anonymity for medicines associated with sensitive conditions.

KEY SUPPLY ENABLERS — TIER 1

- **Import dependence** — multiple international sourcing routes create opportunities for customs misdeclaration, undervaluation and small-parcel entry.
- **Compliance cost avoidance** — evasion of customs duties, VAT, product registration, licensing and quality assurance requirements creates a significant cost advantage.
- **Fragmented regulation** — enforcement responsibilities are split across SARS, SAHPRA, SAPS and the BMA, creating coordination and enforcement gaps.

ILLICIT SUPPLY CHAIN — MULTIPLE ILLICIT ENTRY POINTS

1	2	3	4	5
Origin	**Border Entry ★**	**Small Parcel ★★**	**Diversion ★★**	**Retail / Patient**
India, China, Europe, USA	Durban · Cape Town · OR Tambo	Postal & courier imports	Public procurement leakage · grey market	Pharmacies · informal traders · online platforms
	Customs misdeclaration & undervaluation	**Rapidly growing channel**	**Domestic leakage**	

★ Primary border intervention point · ★★ Secondary intervention points — domestic diversion and small-parcel channels represent important pharmaceutical-specific enforcement points not typically observed across the other sectors examined.

ILLICIT PENETRATION RATE — PHARMACEUTICALS (WORKING ESTIMATE)

4.6%
Illicit penetration rate

~R4.3bn
per year

Seizure-implied estimate (10% detection-rate assumption) adopted for economic impact, fiscal and employment modelling. Preferred over mirror trade because pharmaceuticals have significant domestic diversion, informal distribution, online sales and small-parcel channels that are not fully captured in customs-based methodologies. Four independent methods converge on an estimated range of 1.0%–4.6%, with the seizure-implied estimate adopted as the working baseline.

FISCAL DISPLACEMENT — ILLICIT PHARMACEUTICAL TRADE

CURRENT SECTOR TAX BASE

R15.8bn

Annual government revenue from pharma sector

Sales taxes R11.7bn · PIT R3.2bn · Activity R1.0bn

ANNUAL TAX LOSS — ILLICIT TRADE

R403m

Direct fiscal cost of illicit pharma trade annually

TAX LOSS COMPOSITION

73%

of loss is VAT & customs duties — border & supply chain enforcement problem.
VAT & duties R296m (73%) · PIT R81m · Activity R26m

POTENTIAL IF DEMAND REDIRECTED

R16.2bn

Potential tax revenue if illicit pharma demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT PHARMACEUTICAL TRADE

R32.0bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R2.8bn

Formal-sector production output displaced annually

At basic prices

R805m

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R1.1bn

Direct GDP impact annually

GVA R805m + taxes R296m

R32.8bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT PHARMACEUTICAL TRADE

45,537

direct jobs

Formal: 43,166 (95%) · Informal: 2,371 (5%)

1,138

jobs displaced

Formal: 1,079 · Informal: 59

43.6%

semi-skilled formal share

Displacement falls largely on semi-skilled workers, with a further 33.8% affecting unskilled formal workers

46,675

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were redirected towards compliant businesses



GVA = gross value added; measures the sector's direct economic contribution before production taxes. GDP impact = GVA plus foregone taxes on products. · Employment displacement applies a 2.5% illicit trade GVA displacement rate to current direct employment levels. · Tax loss is a direct estimate; ***broader multiplier effects are not included to avoid double-counting.***

OVERVIEW OF ILLICIT PHARMACEUTICAL MARKET IN SOUTH AFRICA

Global overview

Pharmaceutical products have become a major target for illicit trade globally, driven by high profit margins, strong and inelastic demand, and relatively low risks of detection and prosecution. Unlike many other counterfeit consumer goods, medicines are essential products, meaning demand persists even in lower-income markets and during periods of economic stress.

The most widely cited global benchmark, published by the OECD and European Union Intellectual Property Office (EUIPO), estimates that international trade in counterfeit pharmaceutical products amounted to approximately US$4.4 billion in 2016, equivalent to around 0.8% of global pharmaceutical trade. While significant, the estimate captures only cross-border trade and excludes domestically produced counterfeit medicines, informal distribution channels and online sales, and is therefore generally regarded as a conservative lower-bound estimate of the broader illicit pharmaceutical market.

Structural vulnerabilities in the pharmaceutical supply chain

The pharmaceutical sector is particularly vulnerable because of its high intellectual property intensity, complex international supply chains and the difficulty of verifying product authenticity without specialised testing. Advances in manufacturing and packaging technologies have also made it easier for illicit operators to replicate legitimate medicines and packaging with increasing sophistication, making counterfeit and falsified products harder to detect.

Pharmaceutical supply chains often span multiple countries, with products manufactured, packaged and distributed across different jurisdictions before reaching end markets. This complexity creates opportunities for counterfeiters to infiltrate supply chains and disguise the origin of illicit products.

High-risk product categories and distribution channels

Illicit activity in pharmaceuticals is concentrated in high-demand and high-value therapeutic categories such as antibiotics, painkillers, chronic disease treatments, anti-malarials, HIV medicines, sexual health products and weight-loss treatments. International seizure data show that counterfeit pharmaceuticals span a wide range of therapeutic categories, including medicines used to treat malaria, HIV/AIDS, cancer, diabetes, cardiovascular disease and neurological disorders.

The growth of e-commerce, rogue online pharmacies and small-parcel delivery networks has further increased exposure by lowering barriers to entry and enabling direct-to-consumer sales outside regulated pharmaceutical distribution channels. In some cases, illicit operators also ship individual components or packaging materials separately and assemble products downstream, further complicating border detection and enforcement. International evidence suggests that postal and express mail services have become a particularly important distribution channel, accounting for more than 95% of customs seizures of counterfeit pharmaceuticals globally.

Public health risks and global enforcement patterns

Unlike many other illicit consumer products, counterfeit pharmaceuticals pose immediate and potentially severe health risks. Falsified or substandard medicines may contain incorrect active ingredients, no active ingredients, incorrect dosages, contaminated compounds or toxic substances, leading to treatment failure, drug resistance,

poisoning or death. This makes illicit pharmaceuticals not only a trade and regulatory problem, but also a major public health threat.

Customs seizure data indicate that pharmaceuticals account for approximately 5% of global seizures of dangerous counterfeit goods, underscoring their significance within the broader illicit trade landscape. Counterfeit medicines have been linked to treatment failure across a range of serious diseases. At the same time, international estimates suggest that counterfeit medicines contribute to significant mortality, particularly in lower-income countries where regulatory oversight and supply-chain controls may be weaker.

South African context

South Africa is the largest pharmaceutical market in sub-Saharan Africa and serves as a regional hub for pharmaceutical manufacturing, distribution, clinical research and regulatory oversight. The sector supports thousands of skilled jobs across manufacturing, research, logistics and retail pharmacy, while playing a critical role in the supply of medicines throughout Southern Africa. South Africa is also one of the world's largest procurers of antiretroviral medicines and remains an important destination for pharmaceutical investment and innovation.

At the same time, South Africa's position as a major pharmaceutical market makes it both a key destination market and a potential regional transit point for illicit medicines.

Vulnerabilities include relatively high medicine prices in certain segments, affordability constraints, complex international supply chains, porous regional trade corridors and the growing role of digital and informal distribution channels. The rapid expansion of e-commerce and online pharmacy platforms may further increase exposure to illicit pharmaceutical trade, where seller verification, product traceability and enforcement capacity struggle to keep pace with digital distribution channels.

Available evidence suggests that illicit pharmaceutical activity in South Africa spans both informal and digital channels. According to the South African Health Products Regulatory Authority (SAHPRA), 507 suspected cases of counterfeit or illicit medicines were reported during 2024/25, of which 110 were confirmed. Reported activity includes street-level sales of prescription medicines, cross-border smuggling from neighbouring countries, diversion of legitimate pharmaceutical products and the online sale of scheduled medicines without proper authorisation. A University of KwaZulu-Natal study of South African online pharmacy websites also found that some operators supplied prescription medicines without adequate prescription controls or clear linkage to licensed physical pharmacies.

These findings suggest that illicit pharmaceutical trade in South Africa is not confined to isolated counterfeit incidents but forms part of a broader ecosystem of non-compliant distribution channels operating outside the formal regulatory framework. Beyond the direct economic losses incurred by legitimate manufacturers, wholesalers and pharmacies, the proliferation of illicit medicines poses a significant risk to public health, consumer safety and confidence in the healthcare system.

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STRUCTURE AND DRIVERS OF ILLICIT PHARMACEUTICAL TRADE

Forms of illicit pharmaceutical trade in South Africa: ranked assessment

RANK	FORM OF ILLICIT TRADE	SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Unlawful imports (misdeclaration of tariff heading, customs value or quantity)**	Highest – dominant channel	Mirror trade analysis identifies persistent discrepancies between India's reported exports and SA's recorded imports for HS 3004, consistent with systematic undervaluation, misclassification and under-recorded imports. SARS data show rising under-declared medicament seizures, further supporting this pattern.
2	**Counterfeit, falsified and substandard medicines**	High – major illicit category	International evidence shows that counterfeit and falsified pharmaceuticals are concentrated in international supply chains and often enter markets through misdeclared, undervalued or opaque trade channels. These products pose the greatest direct public health risk.
3	**Online and small-parcel pharmaceutical trade**	High – rapidly growing channel	Recent South African evidence indicates that counterfeit and falsified medicines are increasingly marketed and sold through online platforms, social media sellers, informal digital vendors, and courier or postal channels. Regulatory gaps in platform liability, seller verification, and parcel oversight appear to be amplifying this risk. SAHPRA's warning about counterfeit GLP-1 products underscores the growing importance of this channel.
4	**Smuggling / fully undeclared imports**	Moderate	Pharmaceuticals entering through land borders, air cargo, passenger baggage, courier networks and postal systems without full declaration. These flows are not captured in customs trade data or reflected in mirror trade estimates. Weaknesses in postal and parcel oversight may increase the channel's vulnerability.
5	**Diversion and grey-market trade**	Moderate	Legitimate medicines that are diverted, stolen, rerouted, or sold outside authorised distribution channels. These products may be genuine, but they enter the market unlawfully or without regulatory oversight.
6	**Unlicensed or non-compliant manufacturing, repackaging or relabelling operations**	Moderate–Low	Includes pharmaceutical or quasi-pharmaceutical products that are manufactured, compounded, repackaged, filled or relabelled outside licensed and regulated channels, including operations that bypass SAHPRA registration, GMP standards or labelling requirements.
7	**Sale of unregistered or non-compliant medicines**	Low–Moderate	Medicines that fail to comply with registration, formulation, labelling, packaging or quality standards, even where they are not necessarily counterfeit. Often overlaps with online, informal or grey-market supply channels.
8	**Local under-declaration within formal manufacturing or distribution**	Lowest	Likely less prevalent than import-related channels, given the relatively formal and regulated nature of South Africa's pharmaceutical manufacturing and wholesale environment.

***Note**: Due to the lack of comprehensive quantitative data measuring the relative scale of different illicit trade channels in the pharmaceutical sector, the ranking should be interpreted as indicative rather than definitive. It reflects an analytical assessment based on SARS enforcement data, mirror trade discrepancies, and international evidence, supplemented by quantitative estimates developed in this report.*

Illicit pharmaceutical trade in South Africa is **primarily import- and distribution-driven rather than production-driven**. Unlawful imports are the main economic channel, while counterfeit and substandard medicines pose the greatest health risk. These channels are often interconnected and increasingly facilitated through **fragmented digital distribution channels**, including online platforms, social media, and courier-based delivery.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Access, cost and convenience barriers	Although many medicines are available through the public health system at low or no direct cost, access is often not frictionless. Transport expenses, waiting times, lost income, repeat visits, stock disruptions and administrative hurdles can create significant barriers, particularly for consumers without stable healthcare coverage or seeking medicines not readily available through public facilities. In this context, illicit or informal channels may appear faster, more accessible, less restrictive and, in some cases, cheaper than formal pathways, especially when same-day availability, direct delivery, or reduced prescription and paperwork requirements are offered.	Highest
Medicine shortages and treatment continuity risks	Demand for illicit or informal medicines may also arise where treatment continuity is disrupted by stockouts, delayed refills or inconsistent availability across facilities. This is particularly relevant for chronic-use or high-demand medicines, where consumers may prioritise continuity over channel legitimacy.	High
Online availability and direct-to-consumer sales	The growth of online pharmacies, marketplace platforms, social media sellers, WhatsApp vendors and small-parcel delivery networks has made illicit medicines easier to access. These channels reduce friction for consumers and allow products to be purchased discreetly and delivered directly, often with limited verification of legitimacy.	High
Privacy, stigma and self-medication behaviour	Consumers may prefer illicit or unregulated channels for medicines associated with sensitive or stigmatised conditions, including sexual health, weight loss, mental health, fertility, erectile dysfunction or chronic disease management. The ability to purchase these products anonymously or without medical consultation can increase demand.	High
Weak consumer deterrence arising from authenticity uncertainty	Most consumers are unable to determine whether a medicine is legitimate, substandard or falsified based on appearance alone. Packaging, branding, and labelling can often closely resemble those of genuine products, especially in online or informal retail settings. This does not directly create demand, but it weakens a major deterrent to purchasing through illicit channels.	Moderate–High
Demand for specific branded or access-restricted products	Illicit demand is often concentrated in medicines that are either highly recognisable or difficult to access through legitimate channels. This includes branded products vulnerable to imitation, as well as high-demand or access-restricted medicines such as weight-loss products, sexual health medicines, sedatives, stimulants and certain specialist or chronic-use treatments. These products are especially vulnerable to counterfeit sales, grey-market diversion and unauthorised online distribution.	Moderate–High
Reliance on informal healthcare advice & non-formal health networks	In parts of South Africa, consumers may rely on informal health advice, unlicensed dispensers, social networks, community recommendations or traditional and non-formal health channels when sourcing medicines. This can increase trust in non-regulated products or sellers and reduce reliance on formal pharmaceutical distribution channels.	Moderate
Weak consumer awareness of broader harms	Many consumers may not fully appreciate that illicit medicines can contain incorrect dosages, no active ingredients, harmful substances or contaminated compounds. Nor is there always a strong awareness of the broader economic effects, including harm to compliant manufacturers, tax losses and pressure on the formal healthcare supply chain.	Moderate
Perceived low risk of purchase	Purchasing medicines through informal or online channels may carry little perceived legal or reputational risk for consumers, particularly where these products are widely available and normalised. In practice, consumer-facing enforcement is limited, and purchasing unregistered or non-compliant medicines online rarely appears to carry visible consequences for end users.	Moderate

Supply Side Enablers of Illicit Pharmaceutical Trade

Supply-side enablers are organised into three tiers based on their assessed impact on the scale and persistence of illicit pharmaceutical trade in South Africa. Tier 1 factors are the primary structural drivers; Tiers 2 and 3 are compounding or contextual factors that amplify the effect of Tier 1 conditions.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High import dependence and supply chain vulnerability. South Africa's pharmaceutical market remains heavily dependent on imported finished medicines, active pharmaceutical ingredients (APIs) and intermediate inputs. This creates multiple opportunities for misdeclaration, undervaluation, under-recording and supply-chain diversion, particularly where regulatory and customs oversight is uneven. Import dependence also increases exposure to external supply shocks and opaque sourcing chains.	**Regulatory fragmentation, weak enforcement coordination and limited prosecutorial capacity.** Enforcement responsibilities are spread across multiple institutions, including SARS, SAHPRA, SAPS, the Border Management Authority (BMA) and, in some cases, provincial or municipal enforcement structures. Coordination gaps, overlapping mandates and limited data integration reduce deterrence and constrain intelligence-led enforcement.
Strong incentives to bypass formal import, registration and distribution requirements. Illicit operators can avoid not only customs duties and VAT where applicable, but also the costs associated with product registration, licensing, quality assurance, authorised wholesaling and formal pharmacy distribution. This creates strong commercial incentives to import or distribute medicines outside regulated channels.	**Limited inspection & detection capacity across ports, parcels & distribution channels.** Traditional customs and border enforcement are not designed to comprehensively intercept all illicit pharmaceutical flows, particularly where medicines enter through small consignments, courier networks, postal channels or fragmented distribution pathways. Limited inspection capacity increases the probability of evasion.
High value-to-weight ratio & attractive margin profile in selected product categories. Pharmaceuticals often combine high unit value, small physical size and strong consumer demand, making them highly attractive to illicit operators. This creates strong returns even at relatively low shipment volumes and makes concealment, parcel-based distribution and online resale commercially viable.	**Weak oversight of online and platform-based pharmaceutical sales.** The growth of online pharmacies, marketplace platforms, social media sellers and direct-to-consumer delivery channels has expanded routes to market for illicit or unauthorised medicines. Seller verification, platform accountability and consumer-facing enforcement remain uneven, increasing vulnerability in digital channels.
	Regulatory lag in digital commerce oversight Existing regulatory frameworks, including the Medicines and Related Substances Act, have not fully kept pace with the rapid growth of online pharmaceutical sales, social media distribution and courier-based fulfilment. This creates important enforcement gaps and makes it easier for illicit or unregistered medicines to reach consumers outside traditional regulated channels.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 2 – Structural & Systemic Drivers	
Global and regional re-export supply chains. Medicines may be routed through intermediate hubs, free zones or regional redistribution centres, obscuring origin, complicating traceability and weakening the usefulness of simple bilateral trade monitoring. This can facilitate re-invoicing, grey-market diversion and under-recorded imports.	**SAHPRA registration backlogs and regulatory delays.** South Africa's medicine registration system has historically faced significant processing delays and application backlogs, with some product approvals taking several years. These delays can create structural incentives for unauthorised supply, parallel distribution and the circulation of unregistered or insufficiently scrutinised products.
Large informal and semi-formal retail ecosystems. South Africa's extensive informal economy creates multiple downstream routes for pharmaceutical products to be distributed outside formal pharmacy and wholesale channels. This includes informal traders, unlicensed sellers, community-level distributors and informal health-product networks.	**Weak cross-border and international intelligence sharing.** Limited coordination with customs and regulatory counterparts in source and transit countries reduces the ability to detect re-routed shipments, verify export declarations or identify repeat-risk trade corridors.
Persistent medicine shortages and supply discontinuities. Periodic stockouts, treatment interruptions and uneven product availability create recurring supply gaps that illicit operators can exploit, particularly in high-demand or chronic-use product categories. This risk is particularly relevant in South Africa, where the availability of medicine can vary across facilities and provinces, creating intermittent supply gaps that illicit distributors can exploit.	**Limited visible consequences for non-compliant sellers and distributors.** Where seizures, investigations or enforcement actions do not consistently result in prosecutions, licence sanctions or market removal, the deterrent effect is weakened.
	Absence of a comprehensive pharmaceutical track-and-trace system. South Africa does not currently operate a fully integrated, unit-level pharmaceutical track-and-trace or serialisation system across the domestic supply chain. This limits the ability to verify provenance, detect diversion, identify grey-market leakage and trace counterfeit products once they enter distribution channels.
Tier 3 – Market-Level & Contextual Factors	
Reliance on imported inputs constrains local resilience. Although South Africa has a meaningful domestic pharmaceutical base, the sector remains reliant on imported APIs and external manufacturing dependencies. This reduces resilience and can increase the attractiveness of unauthorised parallel supply during disruption.	**Complexity of pharmaceutical product verification and traceability.** Pharmaceuticals are technically difficult to authenticate without proper testing, batch verification and regulatory traceability systems. This creates enforcement asymmetry in favour of sophisticated counterfeit and diversion networks.
South Africa's role as a regional pharmaceutical and logistics hub. South Africa functions as both a major destination market and a regional redistribution point. This increases throughput volumes and enforcement complexity, particularly where legitimate and illegitimate trade flows overlap.	**Limited practical consumer verification tools.** Although SAHPRA and related regulatory systems maintain formal licensing and registration mechanisms, these are not always easily accessible, widely known or user-friendly for ordinary consumers. This reduces consumers' practical ability to verify whether products, pharmacies, or online sellers are legitimate.

Sources: OECD, Tracit, WCO, OECD/EUIPO; WHO, SAHPRA

The Illicit Pharmaceutical Supply Chain | Five-stage Flow

1 ORIGIN

Global Sourcing — BEYOND SA JURISDICTION — LIMITED DIRECT INTERVENTION

KEY PRODUCERS

India · China · Pakistan · Turkey · selected Middle East/Asia

Illicit pharmaceutical products may originate as counterfeit or falsified medicines, diverted legitimate products (grey market), unregistered or non-compliant medicines.

ENFORCEMENT LEVER

India is a major global producer of generic medicines, while other source markets are linked to both legitimate and illicit production.

Intervention requires **international regulatory cooperation, customs intelligence sharing**, and enforcement led by WHO/WCO/Interpol.

2 TRANSIT

Re-Export Hubs & Indirect Routing — TIER 1 OPACITY & EVASION MECHANISM

KEY HUBS

Dubai · Hong Kong · Singapore

Products may be re-exported through free zones; re-invoiced or relabelled; consolidated with other consignments routed via third countries before entering SA.

ENFORCEMENT IMPLICATION

Indirect routing obscures origin, weakens traceability and breaks the bilateral trade trail used in mirror-trade analysis.

Requires **multi-country trade analysis and intelligence-sharing across transit countries**, not just bilateral customs checks.

3 BORDER ENTRY ★

Formal Import Channels & Borders — ★ PRIMARY SARS & SAHPRA INTERVENTION POINT

KEY ENTRY POINTS

Durban · Cape Town · OR Tambo · Beitbridge · Postal & courier systems

ILLICIT ENTRY MECHANISMS

Misdeclaration (value, quantity, tariff classification), HS misclassification, undeclared or partially declared consignments, and **small-parcel or courier shipments to avoid scrutiny**.

ENFORCEMENT IMPLICATION

Primary fiscal intervention point where misdeclaration, under-recording and regulatory evasion occur.

SARS enforces customs; SAHPRA identifies non-compliant products. Parcel and courier flows increase evasion risk and reduce detection.

4 POST-BORDER DISTRIBUTION

Formal, Informal & Diverted Channels — BLENDED DISTRIBUTION ARCHITECTURE

KEY DISTRIBUTION PATHWAYS

Informal distributors & unlicensed wholesalers · diversion from authorised wholesale/pharmacy channels · grey-market resale · informal retail & community-level networks

Illicit supply includes both underground distribution and **products diverted from legitimate supply chains** and resold outside authorised controls.

ENFORCEMENT IMPLICATION

Harder to detect than border entry, as products may appear outwardly legitimate once inside the domestic market.

Requires **post-clearance audit, wholesaler and pharmacy licensing oversight, market surveillance**, and stronger SARS-SAHPRA-SAPS coordination.

5 RETAIL / DISPENSING

Multiple Routes to Consumer — FINAL ACCESS POINT — HIGHEST PUBLIC HEALTH RISK

Channel 1
Informal physical retail

Informal distributors → informal traders/small retailers/unlicensed sellers → consumer

- Traditional physical channel. Outside formal regulation; difficult to trace.

Channel 2
Online & social media

Wholesalers/distributors/online sellers → e-commerce/social media/WhatsApp → consumer

- Rapid growth; limited oversight and enforcement challenges.

Channel 3
Courier & parcel delivery

Supplier/importer → courier/parcel delivery → consumer

- High-risk small-parcel channel, often purchased online or without prescription.

Channel 4
Informal health networks

Informal health networks/traditional or non-formal practitioners → consumer

- Relevant in SA where consumers rely on informal health advice or non-formal access.

ENFORCEMENT IMPLICATION

Highest public health risk point. Key issues include non-prescription sales, unregistered or diverted products, and weak consumer verification. Requires **stronger digital enforcement, licensing oversight and consumer awareness**.

Source: WHO, WCO, Interpol, SARS, SAHPRA, OECD/EUIPO, UN Comtrade / ITC Trade Map.

SCALE OF ILLICIT PHARMACEUTICALS – PENETRATION RATE

Methodological approach

Direct measurement of illicit trade is inherently difficult because the activity is designed to evade detection. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

No single method provides a complete estimate. Instead, the objective is to assess whether different indicators converge on a plausible range for illicit market penetration in South Africa's pharmaceutical sector.

In contrast to the CPC sector, the boundary between informal, non-compliant and illicit trade is more clearly defined, reflecting the pharmaceutical sector's tighter regulatory framework. This reduces ambiguity in interpretation but does not eliminate measurement challenges.

This analysis estimates illicit pharmaceutical trade penetration using four complementary benchmarks:

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror Trade Analysis	Import misdeclaration, undervaluation & under-recorded imports	UN Comtrade /ITC TradeMap (e.g. India–SA trade flows)	Primary indicator of potential illicit market entry through trade-related channels
2. Domestic Enforcement & Regulatory Indicators	Detected illicit activity, distribution channels and product types	SARS, SAHPRA and enforcement reports	Provides direct evidence of detected illicit circulation and market dynamics
3. Supply-Use Table (SUT) Benchmark	Non-observed domestic market activity in pharmaceuticals	Stats SA's Supply-Use Tables	Provides a domestic cross-check of unrecorded market activity in a tightly regulated sector
4. International Benchmarking Evidence	Plausible penetration ranges observed in comparable markets	OECD/EUIPO trade-based estimates; WHO evidence on substandard and falsified medicines	Provides a plausibility check against international evidence

Taken together, these methods distinguish between:

- illicit market entry, reflected primarily in trade and customs-related indicators; and
- domestic market penetration, reflected in enforcement evidence and non-observed activity captured in Supply-Use Table estimates.

The final penetration range is derived from the convergence across methods and should be interpreted as a directional, evidence-based estimate of illicit pharmaceutical trade in South Africa.

Estimating the Size of the Pharmaceutical Market

The South African Reserve Bank (SARB) national accounts series for household consumption expenditure on medical and pharmaceutical products is used as the market-size denominator in this report.

This series is preferred to Stats SA's formal retail trade data for two reasons:

- First, it is published in nominal terms, making it directly comparable with the nominal rand values used in the mirror trade and seizure-based analyses.
- Second, it captures household expenditure across a broader set of channels than formal retail trade alone, providing a more complete representation of the domestic market in which illicit pharmaceutical products may circulate.

While the broader trend is shown for context, the penetration estimates in this report are benchmarked against the average 2019-2025 household pharmaceutical expenditure (R87.8 billion).

Table 74: Estimated Pharmaceutical Market Size - South Africa

YEAR	MEDICAL AND PHARMACEUTICAL PRODUCTS HOUSEHOLD CONSUMPTION (NOMINAL)	YEAR-ON-YEAR GROWTH (%)
2019	R70,0bn	5,1
2020	R74,4bn	6,3
2021	R81,8bn	10,0
2022	R85,5bn	4,5
2023	R91,1bn	6,5
2024	R101,5bn	11,5
2025	R110,0bn	8,3
Average: 2019-2025	**R87,8bn**	**8,2**

Source: SA Reserve Bank

Method 1: Mirror Trade Analysis[46]

Conceptual basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate under-recording of imports, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains. While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative – though not definitive – of underlying trade frictions or potential misreporting.[47]

[46] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[47] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries (28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where*

HS code coverage

The analysis focuses on HS 3004 (Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale) and HS3003 (Medicaments consisting of two or more constituents mixed together for therapeutic or prophylactic uses, not in measured doses or put up for retail sale), which capture retail pharmaceutical products most relevant to household consumption. It excludes bulk inputs, hospital-use products and specialised medical goods that are not directly comparable to the consumer-facing pharmaceutical market (HS3001, 3002, 3005, 3006).

India–South Africa pharmaceutical trade corridor

The analysis focuses on the India–South Africa corridor as the single representative trade route modelled, as India is the largest source of imported retail medicines. India accounted for 31% and 32% of South Africa's HS 3003 and HS 3004 imports (2019–2025), respectively, confirming India as the dominant bilateral supplier. India accounts for approximately 32% of SA's total recorded pharma imports across HS 3003 and 3004.

Because only one corridor is analysed, the results represent a lower-bound indicator of potential import irregularities, rather than a comprehensive estimate of illicit pharmaceutical imports.

No scaling adjustment is applied at this stage; the estimate, therefore, reflects only the measured corridor and understates total import-related irregularities.

Table 75: India's Share of South Africa's CPC Imports by HS Code 3003 and 3004, 2019–2025 Average

YEAR	INDIA'S SHARE OF SA HS 3004 IMPORTS	INDIA'S SHARE OF SA HS 3003 IMPORTS
2019	27%	38%
2020	33%	33%
2021	31%	33%
2022	32%	13%
2023	33%	36%
2024	35%	29%
2025	32%	33%
Average (2019–2025)	**32%**	**31%**

Mirror trade results

Table 76: India–South Africa Pharmaceutical Trade (HS3003+HS3004): Mirror Analysis and Import Discrepancies

YEAR	INDIA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM INDIA (FOB)	GAP : EXPORTS-IMPORTS(USD)	GAP (RAND)	GAP AS % OF EXPORTS
HS 3003	$1.1m	$3.2m	−$2.1m	−R36.5m	−182%
HS 3004	$609.0m	$582.7m	$26.4m	**R439.6m**	4%
Total	$610.2m	$585.9m	$24.3m	R403.1m	4%

* *Negative discrepancies reflect normal trade timing and reporting variation and are retained in the average rather than set to zero, ensuring the analysis is not upwardly biased.*

bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.

HS 3003 exhibits a negative mirror-trade gap, consistent with re-export routing via intermediary hubs rather than direct bilateral trade. This pattern does not provide a usable signal of under-recording of imports.

HS 3004, which accounts for the overwhelming majority of analysed pharmaceutical trade by value, exhibits a consistent positive gap (of R439.6 million), averaging 4% of India-reported exports over 2019–2025, and serves as the primary basis for the penetration estimate.

Noise discount and corridor adjustment framework

Mirror trade analysis has recognised limitations. The following factors can contribute to bilateral trade gaps independently of illicit activity and must be acknowledged:

Table 77: Potential non-fraud contributors to bilateral trade gaps - India–SA pharmaceutical corridor

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export via third countries	Reduces apparent SA imports from India	Possible, but likely less significant than in sectors such as cosmetics, as pharmaceutical supply chains are generally more tightly regulated and formalised
Trade recording timing differences	Minor bilateral misalignment	Small effect – typically short-term and unlikely to explain a persistent multi-year gap
Classification and reporting differences	Minor HS-level discrepancies	Limited to the HS 3004 level, which captures retail pharmaceutical products relatively consistently
Informal / undeclared trade not captured	Reduces SA recorded imports	Relevant, particularly where pharmaceuticals enter through informal, cross-border or small-parcel channels

Because these factors can inflate bilateral discrepancies independently of illicit activity, the trade gap cannot be interpreted directly as a measure of the illicit market. International studies, including those by the OECD and Global Financial Integrity, commonly apply noise discounts of 30%–60%.[48]

Given the relatively formal nature of pharmaceutical supply chains, a discount at the lower end of this range – 30%–40% – is considered appropriate for this analysis, reflecting the more limited extent to which mirror-trade discrepancies can be attributed to benign trade-routing effects. However, global fragmentation and intermediary routing still introduce both legitimate trade frictions and statistical noise.

The true penetration rate is likely higher once non-India import corridors are taken into account. Panel A captures only the India corridor, which accounts for approximately 32% of total recorded SA HS 3004 imports. Panel B addresses this limitation by extrapolating the observed India corridor misdeclaration rate across all import corridors, yielding an implied all-corridor gap of R1.4 billion. This extrapolation assumes that the misdeclaration rate observed on the India corridor is broadly representative of other origin corridors – an assumption that is considered reasonable given India's dominant share of SA pharmaceutical imports, but which may understate the true gap if informal or less-regulated corridors exhibit higher misdeclaration rates.

The consumption denominator – average household expenditure on medical and pharmaceutical products of R87.8 billion (2019–2025 average) – is intentionally broader than the mirror-trade numerator, which covers only HS 3004 imports from India. It includes domestically produced medicines, dispensing-related costs, and a broader range of pharmaceutical products than those captured in customs trade data, and reflects imports from all source

[48] *This range is applied in GFI's bilateral trade misinvoicing methodology (Kar and Spanjers, 2015,* Illicit Financial Flows from Developing Countries, *Global Financial Integrity) and is consistent with the adjustment conventions used in OECD/EUIPO (2019),* Trends in Trade in Counterfeit and Pirated Goods.

countries rather than just India. To the extent that the denominator includes ancillary medical products outside HS 3004, the resulting penetration rate is marginally understated.

Table 78: Pharmaceutical Mirror-Trade Matrix – Average Annual, 2019–2025

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE (HS 3004)	CONSUMPTION: MEDICAL & PHARMACEUTICAL PRODUCTS†	ESTIMATE: ILLICIT PENETRATION RATE
PANEL A: INDIA CORRIDOR ONLY (HS3004)					
Raw gap	R439.6m	None	R439,6m	R87.8bn	0.50%
30% noise discount	R439.6m	-30%	R307,7m	R87.8bn	**0.35%**
40% noise discount	R439.6m	−40%	R263,8m	R87.8bn	**0.30%**
PANEL B: ALL CORRIDOR EXTRAPOLATION (INDIA = 32% OF TOTAL RECORDED SA HS 3004 IMPORTS)					
Raw gap (extrapolated)‡	R1.4bn	None	R1.4bn	R87.8bn	**1.6%**
30% noise discount	R1.4bn	−30%	R980m	R87.8bn	**1.1%**
40% noise discount	R1.4bn	−40%	R840m	R87.8bn	**1.0%**

† Average household expenditure on medical and pharmaceutical products, 2019–2025 (SARB). No basket adjustment applied: HS 3004 constitutes the material share of household pharmaceutical expenditure captured in the SARB series, making the unadjusted denominator an appropriately scoped market base.

‡ The extrapolated gap is derived by dividing the India corridor gap (R439.6m) by India's share of total recorded SA HS 3004 imports (32%, average 2019–2025), yielding an implied all-corridor gap of R1.4 billion. This extrapolation assumes that the misdeclaration rate observed on the India corridor is broadly representative of other origin corridors.

Panel B is used as the primary estimate. Applying a 30%–40% noise discount yields a central penetration range of 1.0%–1.1% (R840m–R980m). Panel A is retained as a conservative single-corridor floor of 0.30%–0.50%. Both estimates are likely conservative: Panel B assumes uniform misdeclaration rates across corridors, while land-border imports, small-parcel trade and informal cross-border pharmaceutical flows are structurally undercounted in Comtrade, suggesting the true all-corridor gap exceeds R1.4 billion.

Method 2: SARS Seizure-Implied Market Estimation

Conceptual Basis

Physical seizure data reflects goods intercepted through border controls and post-clearance enforcement and therefore captures only the detected portion of illicit trade. Estimating the total market requires applying a detection-rate assumption, which scales observed seizures to account for undetected flows: *Implied illicit market = Seizure value ÷ Detection rate*.

Empirical evidence from comparable middle-income economies suggests detection rates of 2%–10%,[49] reflecting differences in enforcement capacity, inspection coverage and the prevalence of informal and small-parcel channels. This range is considered appropriate for South Africa, which has formal port-based customs systems but limited visibility over informal trade and small-parcel flows.

Lower detection rates imply a larger unobserved illicit flow for a given seizure amount and are consistent with the structural characteristics of illicit consumer goods trade. Customs authorities inspect only a small share of shipments, relying primarily on risk-based targeting rather than comprehensive inspection. Pharmaceutical products are often high-value relative to their bulk and can be concealed within legitimate consignments or misdeclared as related product categories, while informal distribution channels further reduce the likelihood of detection.

[49] *This range is consistent with estimates cited in UNODC (2010),* The Globalization of Crime*, and is applied in illicit trade studies including OECD/EUIPO (2019),* Trends in Trade in Counterfeit and Pirated Goods.

The detection-rate scenarios used in this analysis can therefore be interpreted as follows: 10% detection rate – relatively efficient enforcement (approximately 1 in 10 illicit units intercepted); 5% detection rate – moderate enforcement gap (approximately 1 in 20 intercepted); 2% detection rate – low detection capacity (approximately 1 in 50 intercepted). Accordingly, seizure data represents a known lower bound, with the detection rate used to estimate the total scale of illicit trade.

SARS Annual Report Seizure Data

The analysis uses SARS annual report data, focusing on **under-declared medicament seizures** as the most sector-specific enforcement signal available in the pharmaceutical sector. Counterfeit goods and medicaments are reported separately by SARS – counterfeit goods constitute a broad cross-sector category. In contrast, the medicaments category captures pharmaceutical-specific customs irregularities and under-declaration, making it the more appropriate basis for this estimate.

The annual value of medicament seizures varies materially across the period, ranging from R318 million to R701 million. This volatility likely reflects changes in enforcement intensity, operational focus and classification practices rather than underlying shifts in illicit pharmaceutical trade alone.

Table 79: Value of SARS customs seizures

FINANCIAL YEAR	COUNTERFEIT GOODS	UNDER-DECLARED MEDICAMENTS SEIZURES	UNDER-DECLARED MEDICAMENTS SEIZURES % OF TOTAL	TOTAL CUSTOMS SEIZURES
2020-21	n/a	R449m	21.4%	R2.1bn
2021-22	R2.6bn	R318m	7.8%	R4.1bn
2022-23	R2,0bn	R367m	6.3%	R5,8bn
2023-24	R2,1bn	R701m	10.5%	R6,6bn
2024-25	R646,3m	R318m	5.1%	R6,3bn
Average	**R1.6bn**	**R431m**	**9.5%**	**R5.0bn**

Source: SARS Annual Reports

Seizure-implied market calculations

To reduce the influence of year-specific outliers, the analysis uses the five-year average annual medicaments seizure value of R431 million. The denominator – average household expenditure on medical and pharmaceutical products of R94 billion (2021–2025) – is expressed over the same five-year period for consistency. Note that Table 5 uses a 2019–2025 average denominator of R87.8 billion; the difference reflects the shorter seizure data series available from SARS annual reports.

Table 80: Implied illicit market based on detection rate assumptions*

DETECTION RATE ASSUMPTION	AVG SEIZURES	IMPLIED ILLICIT MARKET	HOUSEHOLD CONSUMPTION: MEDICAL & PHARMACEUTICAL PRODUCTS	PENETRATION ESTIMATE	INTERPRETATION
10% (high enforcement efficiency)	R431m	R4,3bn	R94bn	4.6%	Conservative estimate
5% (moderate enforcement)	R431m	R8,6bn	R94bn	9.1%	Central seizure-based estimate
2% (low enforcement efficiency)	R431m	R21,6bn	R94bn	23.0%	Upper bound

Detection rates vary by channel, with higher interception at formal ports and significantly lower rates in small-parcel and informal flows; the applied range should therefore be interpreted as an aggregate approximation rather than a uniform detection probability.

Seizure-based estimates are structurally higher than mirror trade estimates because they capture enforcement exposure across all corridors and product types rather than a single bilateral trade corridor. They should not be interpreted as direct penetration rates but as indicators of the potential scale of illicit pharmaceutical activity relative to the size of the formal market.

The 10% detection scenario (4.6%) is used as the central seizure-based reference point, as it reflects the upper end of plausible enforcement efficiency and therefore yields the most conservative seizure-implied estimate. The 5% and 2% scenarios provide upper-bound sensitivity cases.

Taken together, the seizure-based results are consistent with the view that illicit pharmaceutical activity extends materially beyond the lower-bound mirror trade estimate, and support the use of Panel B (all-corridor extrapolation) as the primary mirror trade estimate rather than the single-corridor Panel A floor.

Method 3: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

The relevant product category is P43 (352): Pharmaceutical products. The supply table records a non-observed economy (NOE) supply figure representing output that enters the market through informal, unregistered or illicit channels. The five-year average NOE supply for P43 over 2018–2022 is approximately R1.2 billion per year, rising to R1.3 billion in 2022.

Interpreting the NOE supply figure

The NOE supply captures a mix of activity that is not uniformly illicit. In principle, it includes the following components:

COMPONENT	ILLICIT?
Unregistered informal producers (small workshops, unlicensed compounders)	Not strictly illicit – informal but legal
Undeclared output from registered producers	Tax evasion – illicit
Counterfeit or smuggled product re-entering domestic supply	Illicit
Household production	Negligible – SAHPRA licensing requirements make independent household production of pharmaceuticals effectively impossible

In the pharmaceutical sector, the **informal legitimate component is likely to be limited**. Pharmaceutical manufacturing is capital-intensive and subject to stringent regulatory requirements – including SAHPRA

registration, Good Manufacturing Practice (GMP) compliance and product labelling obligations – that constrain the scope for genuine informal non-illicit production. This contrasts with sectors such as food or clothing, where small-scale informal production is widespread and largely legitimate.

On this basis, the NOE supply figure is treated as broadly representative of illicit and grey-market activity rather than legitimate informal production, **and no explicit downward adjustment is applied**. The estimate should nevertheless be interpreted as an upper-bound approximation, as the NOE supply figure cannot be fully broken down into its illicit and non-illicit components from published SUT data alone.

Table 81: Stats SA Supply-Use Table – P43 (352) Pharmaceutical products, 2018–2022

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R115.0bn	R122.3bn	R135.3bn	R103.7bn	R154.8bn	R126.2bn
Total industry (intermediate) use	R41.3bn	R46.7bn	R53.7bn	R20.7bn	R64.4bn	R45.3bn
Household consumption	R67.6bn	R71.0bn	R75.9bn	R83.5bn	R87.0bn	R77.0bn
Non-observed use	R0.26bn	R0.30bn	R0.34bn	R0.02bn	R0.50bn	R0.28bn
Non-observed supply	R1.0bn	R1.1bn	R1.2bn	R1.3bn	R1.3bn	R1.2bn
NOE supply as % of household consumption	**1.6%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	***1.5%***

Source: Stats SA Supply-Use Tables 2018–2022; own calculations. Exports = R5.5bn and general government consumption= neglible.

The NOE supply ratio is stable over the full five-year period at 1.5%, consistent across every year in the series. This stability strengthens confidence in the benchmark as a reliable directional indicator rather than an artefact of a single survey year.

A further structural insight: the NOE supply-consumption gap

The use table provides a complementary, yet structurally distinct, signal.

Non-observed consumption of P43 – representing purchases through informal, unrecorded or grey-market channels – averaged approximately R280 million per year over 2018–2022, materially **lower than the NOE supply figure** of R1.2 billion over the same period.

Unlike the CPC sector, where non-observed consumption substantially exceeded non-observed supply – suggesting that import routing was the primary driver of informal market activity – the pharmaceutical sector shows the opposite pattern: **domestic informal or illicit supply exceeds recorded informal consumption by approximately R900 million per year**.

This implies that a meaningful **share of illicitly produced or unregistered pharmaceutical products is not confined to informal retail channels but is instead entering formal or semi-formal distribution networks**. This is consistent with undeclared output from registered producers or the re-entry of substandard or counterfeit products into the broader supply chain, and points to domestic production irregularities as a contributing factor alongside import-side misdeclaration.

The NOE consumption figure is not used as a standalone penetration estimate, as it captures all informal consumption, including legitimate informal retail activity.

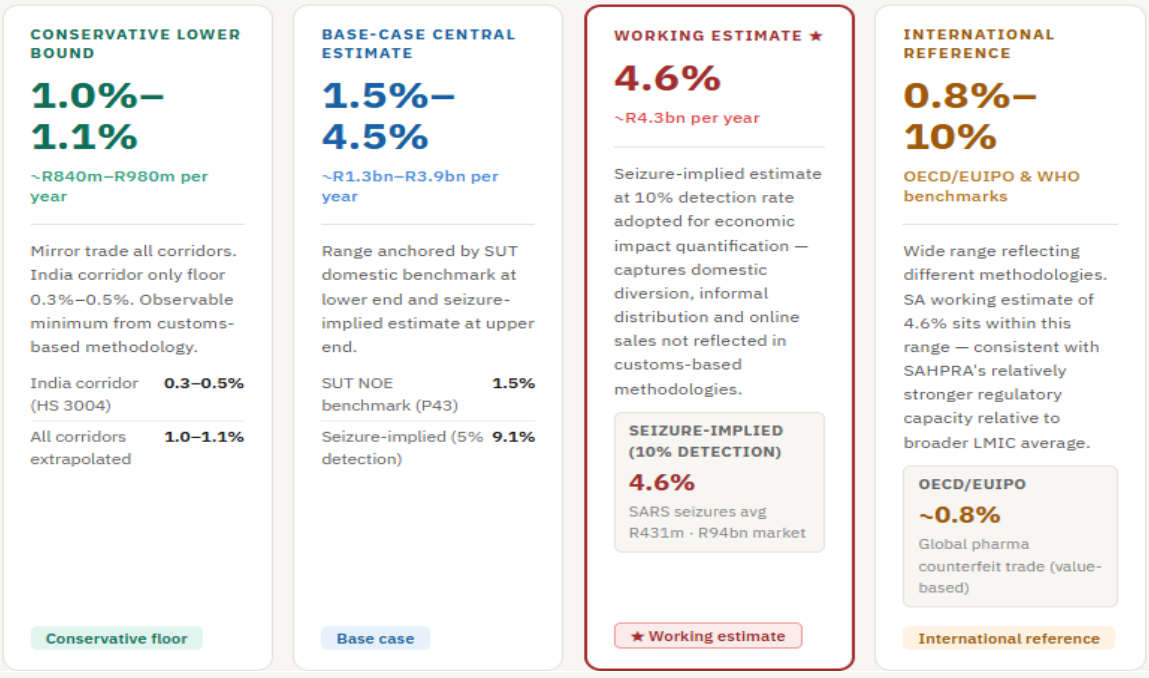
It is retained here as structural corroborating evidence that domestic supply-side irregularities contribute to illicit pharmaceutical market activity, complementing the import-side signal identified in the mirror trade analysis.

Penetration Rate Matrix: Triangulated outcome

The three methods applied in this analysis capture distinct dimensions of illicit pharmaceutical activity and converge on a coherent range.

- The mirror trade analysis (India corridor, HS 3004) provides a conservative lower bound of 1.0%–1.1% on an all-corridor extrapolated basis, and a single-corridor floor of 0.30%–0.50%.
- The SUT benchmark of 1.5% – stable across five years of official national accounts data – anchors the domestic supply-side ceiling. Seizure-implied estimates are structurally higher, reflecting broader enforcement exposure across all channels; the 10% detection scenario (4.6%) is used as the central seizure-based reference point.
- The OECD/EUIPO global benchmark estimates the value of cross-border trade in counterfeit pharmaceuticals at approximately 0.8% of global pharmaceutical import value, providing a conservative lower-bound international reference. WHO estimates of substandard and falsified medicines in low- and middle-income countries (LMIC) of approximately 10%[50] by volume provide an upper-bound contextual reference. South Africa is expected to fall within these bounds, reflecting a relatively stronger regulatory environment than typical LMIC markets, but with identifiable exposure through import channels and distribution leakages.

Triangulation estimate. Estimates range from a conservative mirror-trade floor of **1.0%–1.1%** to a seizure-implied estimate of **4.6%**, with the domestic Supply-Use Table benchmark indicating a penetration rate of approximately **1.5%**. International benchmarks range from approximately **0.8% of global pharmaceutical trade** (OECD/EUIPO) to around **10% of medical products in LMICs** (WHO). The evidence suggests that illicit pharmaceutical trade in South Africa is likely to exceed the conservative mirror-trade estimate, given the importance of domestic diversion, informal distribution channels and online sales that are not fully captured in customs-based methodologies. Accordingly, the study uses a conservative seizure-implied estimate of approximately **4.6% of the market (R4.3 billion per annum)** as the preferred baseline for the economic impact assessment. The mirror-trade and SUT estimates are retained as lower-bound benchmarks, while the higher seizure-based scenarios are treated as sensitivity cases rather than central estimates.



[50] *World Health Organization. (2017).* A study on the public health and socioeconomic impact of substandard and falsified medical products. *Geneva: WHO. WHO/EMP/RHT/2017.01*

Table 82: Triangulated Estimate of Illicit Pharmaceutical Trade Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A: INDIA CORRIDOR ONLY(HS3004) Single corridor floor					
Mirror trade - Raw gap	R439.6m	None	R439,6m	R87.8bn†	0.50%
Mirror-trade - 30% noise discount	R439.6m	-30%	R307,7m	R87.8bn	**0.35%**
Mirror-trade - 40% noise discount	R439.6m	−40%	R263,8m	R87.8bn	**0.30%**
PANEL B: ALL CORRIDOR EXTRAPOLATION (INDIA = 32% OF TOTAL RECORDED SA HS 3004 IMPORTS) Primary mirror trade estimate					
All corridors – raw gap (extrapolated)	R1.4bn	None	R1.4bn	R87.8bn‡	**1.6%**
All corridors - 30% noise discount	R1.4bn	−30%	R980m	R87.8bn	**1.1%**
All corridors - 40% noise discount	R1.4bn	−40%	R840m	R87.8bn	**1.0%**
PANEL C – SEIZURE-IMPLIED ESTIMATES Upper-bound enforcement signal					
Seizure-implied, 10% detection rate	R431m	÷10%	R4,3bn	R94bn	**4.6%**
Seizure-implied, 5% detection rate	R431m	÷5%	R8,6bn	R94bn	**9.1%**
Seizure-implied, 2% detection rate	R431m	÷2%	R21,6bn	R94bn	**23.0%**
PANEL D – CORROBORATING BENCHMARKS					
SUT benchmark (P043 NOE) Domestic Ceiling	R1.2bn	No adjustment §	R1.2bn	R77bn§	**1.5%**
International benchmark (WHO)* International Ceiling					**~0.8%-10%***
SCENARIOS					
Conservative Scenario Sensitivity/lower bound			~R840m–R980m	R87.8bn	**1.0%–1.1%**
Base-case Central Estimate			~R1.3bn–R3.9bn	R87.8bn	**1.5%–4.5%**
Upper-Bound Scenario ★ Seizure-implied /working estimate			**~R4.3bn**	**R94bn**	**4.6%**

★ *The preferred estimate of **4.6% (R4.3bn)** is based on the seizure-implied methodology assuming a 10% detection rate. This estimate is considered more representative of pharmaceutical illicit trade than customs-based measures alone, as it captures activity occurring through domestic diversion, informal distribution channels and online sales that may not be reflected in international trade statistics. The mirror-trade and SUT estimates are retained as conservative lower-bound benchmarks.*

† *Mirror trade denominator = average household expenditure on medical and pharmaceutical products, 2019–2025 (R87.8bn, SARB).*

‡ *Seizure denominator = average household expenditure on medical and pharmaceutical products, 2021–2025 (R94bn, SARB). The difference from † reflects the shorter SARS seizure data series available; the impact on relative penetration estimates is limited.*

§ *SUT denominator = average P43 household consumption 2018–2022 (R77.0bn, Use table). NOE supply = average P43 non-observed supply 2018–2022 (R1.2bn, Supply table). Both from Stats SA Supply-Use Tables; internally consistent within the SUT framework.*

* *OECD/EUIPO (2019): cross-border trade in counterfeit pharmaceuticals estimated at approximately US$4.4bn in 2016, equivalent to ~0.8% of global pharmaceutical import value. Value-based measure; directly comparable to mirror trade estimates in this analysis. WHO (2017): approximately 1 in 10 medical products in LMICs is substandard or falsified. Volume-based measure across all LMIC markets; not directly comparable to value-based estimates. South Africa is expected to fall materially below this benchmark given SAHPRA's relatively stronger regulatory capacity.*

Source: ITC TradeMap; UN Comtrade; SARS Annual Reports; Stats SA Supply-Use Tables 2018–2022; WHO; own calculations.

ECONOMIC IMPACT OF ILLICIT PHARMACEUTICAL TRADE IN SOUTH AFRICA



The Pharmaceutical Industry's Value Chain and Economic Linkages

South Africa has **one of the most developed** pharmaceutical sectors in Africa, with a relatively advanced base in **formulation, packaging, generic manufacturing and distribution**. However, the sector remains **structurally dependent on imports**, particularly for active pharmaceutical ingredients (APIs), finished patented medicines, biologics, vaccines and many specialised therapies. The pharmaceutical industry is closely linked to several upstream and downstream sectors in the South African economy and spans **multiple layers of the value chain**, creating a broad economic footprint.

➔ Upstream, it relies on chemical and petrochemical inputs, APIs, excipients, packaging materials (including plastics, glass and aluminium), laboratory and testing services, specialised equipment, and cold-chain and logistics infrastructure. These inputs are used in formulation, filling, packaging, labelling and quality assurance before medicines enter formal supply channels.

➔ Downstream, pharmaceutical products are distributed through importers, wholesalers, pharmacies, hospitals, clinics, and public procurement systems, as well as through over-the-counter retail and increasingly digital and courier-based channels.

The pharmaceutical sector is part of a highly interconnected value chain that links chemicals, manufacturing, packaging, logistics, healthcare delivery, wholesale and retail trade, and regulatory systems. Due to these extensive linkages, the pharmaceutical sector has a significant multiplier effect, supporting activity across manufacturing, wholesale and retail trade, logistics, financial services and healthcare delivery.

- The sector ultimately serves a wide range of end-use markets, including public and private healthcare, primary care, chronic disease treatment and household consumption. Unlike sectors where long-term decline reflects broad deindustrialisation, South Africa's pharmaceutical sector is better characterised as a **hybrid value chain**. **Domestic firms retain meaningful capability** in selected generic, OTC and downstream manufacturing segments, while **multinational firms and imports dominate** many high-value and technologically complex categories.
- South Africa, therefore, participates more strongly in **formulation, registration, procurement, packaging and distribution** than in broad-based upstream pharmaceutical manufacturing. Public procurement remains a major feature of the sector, particularly for high-volume essential and chronic medicines. Policy has historically aimed to support both **affordability and local production**, with **government support for generic medicines** playing an important role in sustaining domestic formulation and manufacturing capacity in selected therapeutic areas.
- However, implementation constraints, **import competition and reliance on global value chains** continue to limit the scale and depth of domestic pharmaceutical manufacturing.

> This structure is important for understanding the risk of illicit trade. South Africa's pharmaceutical market is vulnerable not only because of its import dependence, but also because medicines move through a complex, highly regulated value chain that includes customs, registration, wholesaling, dispensing and distribution controls. This creates multiple points at which misdeclared, diverted, falsified or non-compliant products can enter or circulate within the market.

Contribution to South Africa’s Government Revenue and the Fiscal Impact Of Illicit Pharmaceutical Trade (2024)

The pharmaceutical sector is an important contributor to South Africa's tax base, generating approximately R15.8 billion in direct government revenue through VAT, customs duties, personal income tax and other activity-related taxes.

Illicit trade erodes this contribution by diverting economic activity away from compliant businesses and outside the formal tax system.

Direct formal sector taxes — current

R15.8bn

Taxes on products (VAT, duties): R11.7bn (74.1%)

PIT → R3.2bn

Activity taxes → R1.0bn

VAT & duties (74.1%) PIT (20.3%)

Activity (6.3%)

Potential tax revenue if illicit demand redirected to compliant operators

R16.2bn

Estimated direct government tax revenue if demand captured by illicit pharma trade were fully redirected to compliant operators

Direct tax loss from illicit trade

R403m

Taxes on products (VAT, duties): R296m (73.4%)

PIT → R81m

Activity taxes → R26m

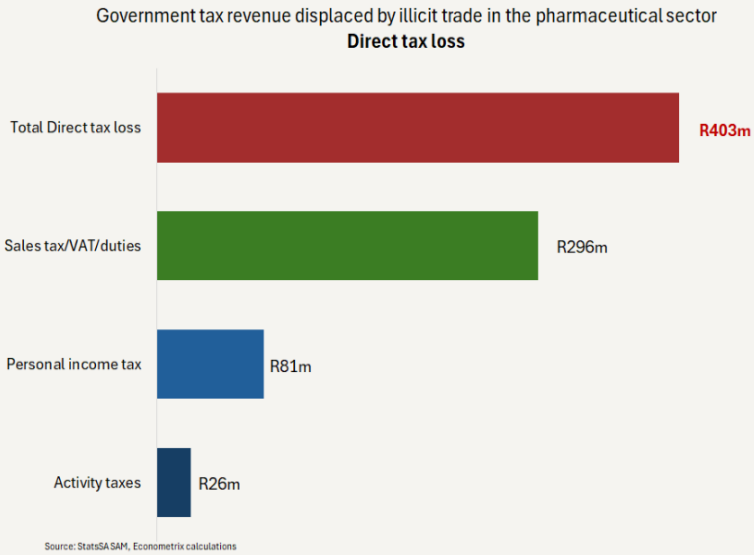
VAT & duties lost (73.4%) PIT (20.1%)

Activity (6.5%)

The fiscal suppression effect

Based on a working estimate of R4.3 billion, the illicit pharmaceutical trade is estimated to result in approximately R403 million in direct tax losses annually.

Consequently, direct tax revenue from the sector could increase from approximately R15.8 billion currently to an estimated R16.2 billion if the demand currently captured by illicit trade were redirected to compliant operators.



The majority of this loss – approximately R296 million (73%) – arises from foregone VAT and customs duties, consistent with the finding that a significant component of illicit pharmaceutical trade is linked to illicit imports, including customs misdeclaration, undervaluation and the circulation of non-compliant products.

However, unlike other consumer goods sectors – where border evasion typically accounts for the majority of estimated tax losses – the pharmaceutical sector's illicit trade profile also includes product diversion, falsified medicines and distribution through informal or unregulated channels, reinforcing the case for enforcement that extends beyond customs into post-market surveillance and supply chain integrity.

Personal income tax losses are estimated at approximately R81 million, while activity-related taxes account for a further R26 million.

The relatively higher PIT share compared to other sectors in this study reflects the pharmaceutical sector's more skills-intensive and formally employed workforce, where employment displacement carries a larger per-worker tax cost.

The fiscal argument for enforcement

The estimated R403 million annual tax loss represents revenue that could potentially be recovered through improved customs enforcement, importer compliance, risk-based inspections and post-market surveillance measures aimed at reducing misdeclaration, domestic diversion and the circulation of falsified or non-compliant medicines.

Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance and enforcement within existing regulatory and tax frameworks – including strengthened SAHPRA post-market controls, SARS customs risk profiling and inter-agency coordination between health and revenue authorities.

Contribution to South Africa's GDP (2024) and the Economic Impact of Illicit Pharmaceutical Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by illicit pharmaceutical trade using a three-step approach. Illicit pharmaceutical trade imposes economic costs on South Africa's formal pharmaceutical sector that extend beyond the direct market-displacement estimate. The working estimate of R4.3 billion per year (Table 9) represents expenditure on pharmaceutical products diverted from formal, legal supply channels – but it does not directly translate into an equivalent loss of GDP.

This distinction is important because South Africa's **pharmaceutical market is import-intensive**. A significant share of formal pharmaceutical sales reflects imported product, which contributes to domestic value added only indirectly – through local formulation and packaging where it occurs, wholesale and retail trade margins, logistics, regulatory compliance and related business services. Illicit imports displace this activity without generating the associated domestic economic contribution.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the pharmaceutical sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R4.3 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R1.2 billion, the estimate equates to approximately **R2.8 billion in displaced formal-sector production output** (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit pharmaceutical trade is estimated at **R1.1 billion annually**, comprising two components:

- **Direct GVA displaced: R805 million** – derived by applying the sector's GVA-to-output ratio of approximately 29% (SUT-derived) to the displaced production output of R2.8 billion. This measures the loss of value added within the sector itself.
- **Foregone taxes on products**: R296 million – comprising VAT, customs duties and other taxes on products associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA.

Key methodological notes

The R4.3 billion illicit market estimate represents the study's working estimate and should be interpreted as the maximum plausible direct market-displacement estimate associated with illicit pharmaceutical trade. Impacts under the base-case estimate would be proportionally lower.

The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.

The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate to **avoid potential double-counting** and to maintain a conservative approach.

Key results

- Where illicit goods compete directly with locally manufactured generics and OTC products, the impact is more severe – suppressing domestic formulation output, reducing investment incentives and contributing to the erosion of South Africa's pharmaceutical manufacturing capacity.
- The combination of import displacement and domestic diversion means illicit trade undermines value added across the full supply chain, from formulation and packaging through to wholesale, retail and regulatory compliance services.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	**Formal sector direct GVA baseline (current, illicit trade present)**	**R32.0bn**
2	Illicit market estimate (formal-equivalent prices)	**R4.3bn**
	Less: trade and transport margins	**–R1.2bn**
	= Displaced formal production output (at basic prices) *	**R2.8bn**
	× Sector GVA/output ratio (SUT-derived)	**~29%**
3a	**= Direct GVA displaced by illicit trade**	**R805m**
3b	**+ Foregone taxes on products due to displaced activity**	**R296m**
3c	**= Direct GDP impact of illicit trade**	**R1.1bn**
COUNTERFACTUAL	**Direct pharmaceutical GVA if illicit trade were eliminated**	**R32.8bn**

* After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R2.8 billion in displaced formal sector production output.

Counterfactual = estimated direct pharma sector GVA if illicit pharmaceutical trade were eliminated and displaced consumption shifted to the formal sector.

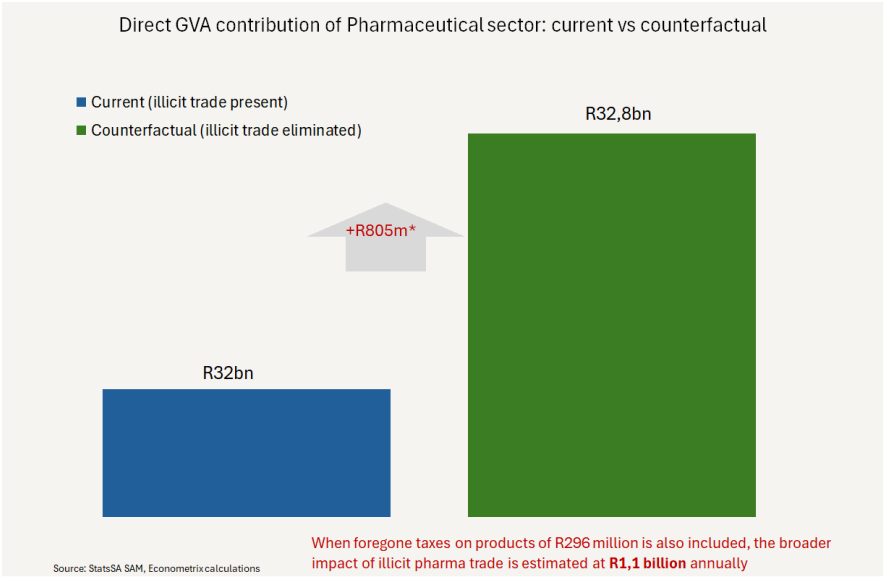
Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R32.0bn	**R805m**	**R1.1bn†**	**R32.8bn**	**R2.8bn**
0.5% of total SA GVA	annually through illicit pharma trade	Direct GVA displaced (R805m) *plus* foregone taxes on products due to displaced activity (R296m)†		annually by illicit pharma trade (at basic prices)

† GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal-sector activity. Taxes on products include VAT, customs duties and other applicable taxes on products. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R4.3 billion of pharmaceutical consumption occurs through illicit channels annually, diverting demand away from compliant, tax-paying businesses.

Under the working estimate, this is estimated to displace approximately R2.8 billion in formal-sector production output, R805 million in direct-sector GVA and R1.1 billion in total GDP impact annually.



As a result, the measured economic contribution of the pharmaceutical sector is suppressed, leading official GVA estimates to underestimate the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Strengthening enforcement against illicit pharmaceutical trade represents an opportunity to recover productive economic activity within one of South Africa's most strategic manufacturing sectors. Reducing the illicit market would help redirect demand towards compliant manufacturers, importers, wholesalers and pharmacies, supporting higher domestic value added, investment and formal employment across the pharmaceutical value chain.

Beyond the estimated direct GDP impact of approximately R1.1 billion per year, stronger enforcement would reinforce incentives for investment in local formulation, packaging, quality assurance, regulatory compliance and distribution infrastructure.

Given the pharmaceutical sector's high levels of regulation, skills intensity and research capability, the broader economic benefits are likely to extend beyond the direct estimates presented here through improved industrial competitiveness, greater supply-chain resilience and enhanced long-term manufacturing capability.

Unlike increases in tax rates or new fiscal measures, these gains could potentially be realised through improved compliance and enforcement within the existing regulatory framework, including strengthened customs risk management, tighter control of pharmaceutical imports, enhanced product authentication and traceability, more effective market surveillance, and coordinated enforcement across SARS, SAHPRA, SAPS and the Border Management Authority.

Contribution To SA's Employment and the Impact of Illicit Pharmaceuticals Trade

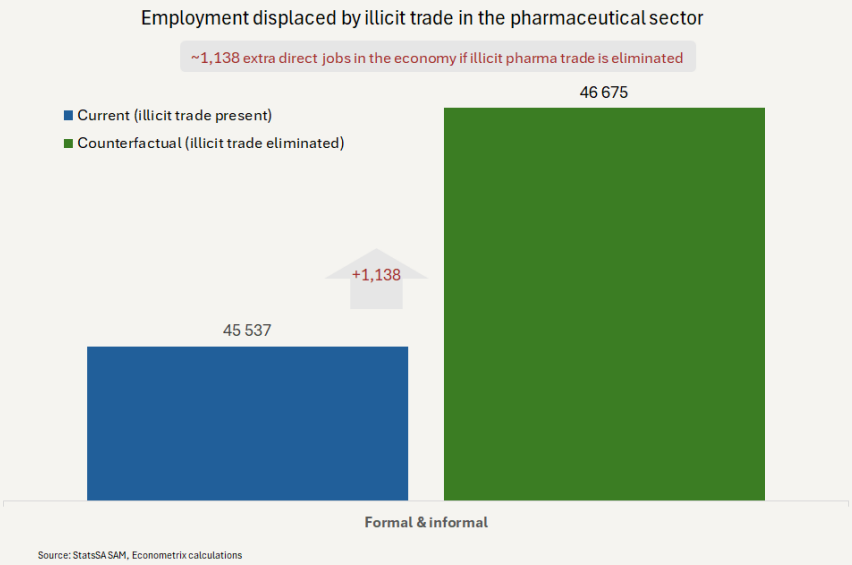
- The pharmaceutical sector is one of South Africa's most highly regulated and skills-intensive manufacturing and distribution industries, supporting employment across manufacturing, formulation, packaging, wholesale distribution and licensed retail.
- Semi-skilled workers account for approximately 43.6% of direct formal employment, while a further 33.8% comprises unskilled workers. Although the sector has a relatively high-skilled workforce, a meaningful share of employment remains concentrated among semi-skilled and lower-skilled workers, who generally face more limited alternative formal employment opportunities.
- The sector exhibits a relatively low degree of informality, with informal workers accounting for approximately 5.2% (2,371) of total direct employment, reflecting the licensing requirements, quality standards and regulatory oversight that characterise pharmaceutical manufacturing, wholesale and retail.
- While illicit trade primarily displaces formal-sector activity, sustained pressure on compliant businesses ultimately constrains the sector's capacity to invest, expand production and sustain high-quality formal employment.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Semi-skilled formal job share
45,537 jobs	**1,138 jobs**	**46,675**	**43.6%**
Formal: 43,166 (95%) Informal: 2,371 (5%)	Formal: 1,079 Informal: 59	*(formal and informal)*	Displacement falls largely on semi-skilled workers, with a further 33.8% affecting unskille formal workers.

The employment suppression effect

The pharmaceutical sector currently employs approximately 45,537 people.

Applying the estimated 2.5%[51] illicit trade displacement rate to current employment levels suggests that approximately **1,138 direct formal and informal jobs are displaced** by illicit pharmaceutical trade.



Total direct-sector employment could potentially reach approximately 46,675 formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant businesses.

Taking indirect and induced effects across suppliers, research and development, logistics, wholesale distribution, healthcare services and other linked industries into account, the **pharmaceutical value chain currently supports approximately 205,597 formal and informal jobs economy-wide**.

[51] *Employment displacement is estimated by applying the sector-specific direct GVA displacement ratio to current direct employment levels.*

These jobs represent employment that could potentially be supported across the pharmaceutical value chain–including manufacturing, packaging, quality assurance, logistics, wholesale distribution and dispensing–if illicit trade were reduced and displaced demand recovered by compliant manufacturers, wholesalers and dispensers.

The employment argument for enforcement

The employment impact of illicit pharmaceutical trade extends beyond lost sales. By diverting demand away from compliant manufacturers, wholesalers, pharmacies and distributors, illicit trade reduces incentives for investment, skills development and workforce growth.

Given the sector's concentration of skilled and semi-skilled workers in formal manufacturing and dispensing, reducing illicit trade could help support employment retention and strengthen one of South Africa's more skills-intensive healthcare manufacturing industries – with particular importance for the long-term sustainability of domestic generic and OTC pharmaceutical production.

SECTOR CHAPTER

14

Tobacco

Sector synopsis and
economic impact assessment



ECONOMIC, FISCAL &
EMPLOYMENT IMPACT
ASSESSMENT

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

36.2bn
Total cigarette consumption
(sticks)

6,457
Total direct employment (formal & informal jobs)
85% formal

R13.3bn
Direct sector GVA contribution
~0.2% of SA GVA (2024)

R27.9bn
Current tax base
VAT & duties: R27.7bn (99%)
PIT: R238m · Activity: R45m

PRIMARY FORMS OF ILLICIT TRADE

1 **Duty-not-paid (DNP) cigarettes / domestic tax evasion** — **~81% of illicit market.** Dominant channel in SA; driven by under-declaration by licensed manufacturers, including off-book production, ghost exports and bonded warehouse leakage. Reflects systemic domestic tax leakage rather than traditional smuggling. — Highest

2 **Smuggling & contraband** — **~19% of illicit market.** Undeclared or misdeclared cigarettes entering SA through ports and land borders, particularly via regional trade routes linked to Zimbabwe and Mozambique. — High

3 **Other/residual channels** — Negligible. Counterfeit cigarettes, unlawful imports, non-compliant products and unlicensed production are relatively minor and largely embedded within broader tax evasion and smuggling networks. — Low

KEY DEMAND DRIVERS

- **Price, affordability & consumer normalisation** — illicit cigarettes are 40–70% cheaper; rising excise and low consumer deterrence have normalised illicit purchasing.
- **High availability & retail penetration** — spaza shops, informal traders and taverns provide wide access; up to 75% of cigarettes sold in spaza shops are estimated to be illicit.
- **Economic hardship & income constraints** — unemployment and cost-of-living pressures make illicit cigarettes a financial necessity for many low-income smokers.

KEY SUPPLY ENABLERS — TIER 1 (HIGHEST IMPACT)

- **Under-declaration by licensed manufacturers** — undeclared shifts and off-book production distinguish SA from smuggling-led markets.
- **Weak factory monitoring & track-and-trace** — limited real-time verification constrains SARS's ability to reconcile declared and actual output.

KEY SUPPLY ENABLERS — TIER 2 (STRUCTURAL)

- **High profitability, fragmented enforcement & informal retail networks** — low-cost off-book production, weak inter-agency coordination and extensive informal distribution reinforce illicit scale.

ILLICIT SUPPLY CHAIN — DOMESTIC PRODUCTION-LED, WITH SECONDARY CROSS-BORDER INFLOWS

1	2	3	4	5
Raw materials	**Domestic manufacturing** ★	**Transit / imports**	**Wholesale**	**Retail**
Diverted tobacco leaf & cut filler · unregistered input suppliers	Off-book production at licensed factories **Under-declaration & DNP cigarettes**	Beitbridge & land borders **Smuggled, undeclared & misdeclared imports**	Unlicensed distributors supplying spaza shops & informal hubs	Spaza shops · street vendors · shebeens · single sticks

★ Domestic under-declaration by licensed manufacturers is the dominant source of illicit cigarettes in South Africa, distinguishing the market from smuggling-led jurisdictions. Border controls remain important, but production oversight and excise enforcement are the primary intervention points.

ILLICIT PENETRATION RATE — TOBACCO (ESTIMATE)

66%
Illicit penetration rate

~R45bn
Estimated illicit tobacco market value
At comparable formal sector market prices (Oxford Economics/Econometrix)

23.9bn illicit sticks of total factory-manufactured cigarette consumption (2024); up to 75% in 2026

Oxford Economics consumption-residual model (2024): total cigarette consumption reconciled against duty-paid volumes from National Treasury excise receipts and DTIC import records; DNP volume is the residual, capturing domestic under-declaration, ghost exports, smuggling and excise leakage. Cigarettes are a highly standardised product, so volume share is a reliable proxy for market displacement and tax leakage. Illicit consumption now exceeds the duty-paid market — estimated tax losses (R31.4bn) exceed taxes currently collected from legal cigarette sales.

FISCAL DISPLACEMENT — ILLICIT TOBACCO TRADE

CURRENT SECTOR TAX BASE

R27.9bn

Annual government revenue from tobacco sector

Taxes on products R27.7bn (99%) · PIT R238m · Activity taxes R45m

→

ANNUAL TAX LOSS — ILLICIT TRADE

R31.4bn

Tax losses exceed current legal-market collections — unique among sectors studied

ILLICIT LOSS VS FORMAL COLLECTIONS

R31.4bn > R27.9bn

Tax evasion exceeds the entire formal sector tax base

Excise & VAT R31.1bn (99%) · PIT R268m · Activity taxes R51m

NATURE OF THE LOSS

99% of losses are excise duties & VAT — driven primarily by domestic under-declaration and excise leakage.

Recoverable through production monitoring, track-and-trace, bonded-warehouse controls & excise enforcement.

POTENTIAL IF DEMAND REDIRECTED

R59.3bn

Potential tax revenue if illicit tobacco demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

Illicit tobacco tax losses (R31.4bn) exceed annual tax collections from the legal market (R27.9bn) — the only sector in this report where estimated tax evasion exceeds the entire formal sector tax base. Every rand collected from legal tobacco sales is effectively matched and surpassed by a rand lost to illicit trade.

GDP & OUTPUT DISPLACEMENT — ILLICIT TOBACCO TRADE

R13.3bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R22.8bn

Formal-sector production output displaced annually

At basic prices

R4.8bn

Direct sector GVA displaced annually

Sector value added; excl. production taxes

R35.9bn

Direct GDP impact annually

GVA R4.8bn + taxes on products R31.1bn

R18.1bn

Potential GVA if illicit trade eliminated

112.5%

MARKET DISPLACEMENT RATIO

Illicit market exceeds adjusted formal market size — the illicit tobacco market is larger than the legal market on a comparable market-price basis

Market displacement ratio = estimated illicit market value expressed as a percentage of the adjusted formal market size, with illicit activity valued at comparable formal market prices.

EMPLOYMENT DISPLACEMENT — ILLICIT TOBACCO TRADE

6,457

direct jobs

Formal: 5,465 (84.6%) · Informal: 992 (15.4%)

~2,330

jobs displaced

Formal: 1,970 · Informal: 360

78.2%

skilled formal share

Displacement falls mainly on skilled workers

8,790

jobs — potential direct employment

Direct-sector employment could potentially reach this level if demand currently captured by illicit channels were recovered by compliant operators

Current sector employment: 6,457 total



Formal: 5,465 (84.6%) Informal: 992 (15.4%)

GDP impact = direct GVA displaced plus foregone excise duties and VAT. Employment displacement applies an estimated 36.1% sector-specific direct GVA displacement ratio to current direct employment levels. Tax losses combine Oxford Economics' estimate of excise and VAT evasion with Econometrix estimates of foregone PIT and activity taxes. Broader multiplier effects are excluded to avoid double-counting. Sources: Oxford Economics; Stats SA, SARB Econometrix.

OVERVIEW OF THE ILLICIT TOBACCO MARKET IN SOUTH AFRICA[52]

Global context

According to the World Health Organisation (WHO), cigarettes are among the world's most widely smuggled legal consumer products, with illicit cigarette sales depriving governments of an estimated US$40–50 billion in tax revenue globally each year. Beyond the fiscal losses, illicit tobacco also undermines public health policy, weakens regulatory credibility, and provides a revenue stream for organised criminal networks.

Structural vulnerabilities

Tobacco is structurally vulnerable to illicit trade because cigarettes are high value, easily transported, relatively standardised, and heavily taxed, creating strong incentives for tax evasion and illegal distribution. By avoiding excise duties and VAT, illicit traders can sell products at prices far below legal cigarettes while still earning substantial margins. This makes tobacco one of the most commercially attractive legal consumer products to trade illegally.

South African market structure

In South Africa, illicit tobacco has evolved beyond opportunistic smuggling into a large, organised and commercially embedded parallel market that competes directly with lawful manufacturers.

Unlike many countries where illicit tobacco is driven primarily by cross-border smuggling, South Africa's market is now dominated by domestically produced, duty-not-paid (DNP) cigarettes, reflecting deep weaknesses in excise enforcement, tax administration, bonded-warehouse oversight and product traceability, as well as entrenched criminal networks operating across domestic and regional supply chains.

The illicit market operates through multiple channels, including under-declared local production, ghost exports, counterfeit products, unlawful imports, non-compliant products and cross-border smuggling. However, the dominant feature of the South African market is no longer simply illegal imports, but rather systemic domestic tax leakage at scale, with illicit production increasingly embedded within formal and semi-formal supply chains. This means illicit tobacco in South Africa should not be viewed as a fringe criminal activity, but as a parallel commercial industry – organised, scalable and profit-driven – competing directly with legal producers.

Scale and market significance

South Africa has become a global outlier in illicit tobacco prevalence. The legal cigarette market has collapsed sharply in recent years while duty-not-paid volumes have expanded, placing South Africa among the highest illicit tobacco markets globally. Industry and research estimates suggest that the illicit share of the market rose from already elevated levels before the pandemic to well above 50%, and by 2024 may have exceeded 60% of total consumption, far above the levels typically observed in most African markets, cementing South Africa's status as one of the world's most distorted and high-risk tobacco markets.

COVID-19 shock and market entrenchment

The COVID-19 tobacco sales ban marked a major structural turning point. Although intended as a temporary public health intervention, the ban created a powerful demand and supply shock that accelerated the growth of illicit supply

[52] *Illicit tobacco trade includes any unlawful production, distribution, sale or purchase of tobacco products, such as tax evasion, counterfeiting, smuggling and disguising product origin. It is carried out by both unregistered illicit operators and legitimate entities that act outside legal and regulatory requirements.*

chains, informal distribution networks and illegal manufacturing channels. During the period when legal sales were prohibited, illicit operators expanded rapidly and consolidated market access. Crucially, these channels did not recede once legal sales resumed – instead, they became entrenched, permanently shifting market share away from the formal duty-paid segment.

Economic and industry impact

This has had severe implications for the legal tobacco value chain. As illicit cigarettes continued to undercut legal products – often by 40–70% or more – legal manufacturers have faced collapsing duty-paid volumes, shrinking margins and rising pressure on the viability of local production. The result is not only lost excise and VAT revenue for the fiscus, but also a weakening of legal manufacturing capacity, formal employment, upstream supplier demand, and investment incentives across the broader tobacco ecosystem.

The scale of the crisis is now visibly reshaping the formal industry. In January 2026, British American Tobacco South Africa (BATSA) announced the closure of its Heidelberg manufacturing plant – its last major local cigarette production facility – after operating at only 35% of capacity amid collapsing duty-paid volumes. BATSA attributed the decision directly to the scale of illicit trade, stating that local manufacturing had become commercially unviable in a market where illicit cigarettes are estimated to account for roughly two-thirds to three-quarters of total sales.

The closure places more than 230 direct jobs at risk, with significantly wider spillover effects across upstream suppliers, logistics providers and downstream value chain participants, highlighting how illicit trade can progressively hollow out domestic industrial capacity and local economic ecosystems.

Public health implications

Illicit tobacco also carries significant public health consequences. Cheap, widely available illicit cigarettes undermine excise-based tobacco control by weakening price as a deterrent to smoking initiation and sustained consumption. They also increase access among more price-sensitive consumers, particularly lower-income smokers and potentially younger users. In this way, illicit tobacco does not merely erode revenue – it directly undermines one of the most effective public health tools available to government.

Industry impact and sustainability

According to industry survey evidence, illicit trade is affecting the South African tobacco sector most severely through revenue losses, job losses and constrained workforce growth, reduced investment capacity, and rising competitive disadvantage. In practical terms, this means illicit trade is not simply reducing legal sales – it is distorting the entire operating environment for compliant businesses, discouraging reinvestment and weakening the long-term sustainability of the formal market.

Conclusion: systemic market failure

Overall, illicit tobacco in South Africa should be understood as a systemic market failure, shaped by weak enforcement, entrenched tax leakage, strong profit incentives and broad retail accessibility. It is no longer a peripheral compliance issue, but a major fiscal, industrial, enforcement and public health threat with consequences that extend well beyond the tobacco category itself.

STRUCTURE AND DRIVERS OF ILLICIT TOBACCO TRADE

Primary forms of illicit tobacco trade in South Africa

Unlike many countries where illicit cigarette trade is driven mainly by smuggling, South Africa's illicit cigarette market is overwhelmingly dominated by domestically produced, duty-not-paid (DNP) cigarettes, reflecting deep weaknesses in excise administration, production oversight and enforcement.

According to survey evidence, approximately 81% of illicit cigarettes in South Africa are linked to local tax evasion through illicit production, while roughly 19% are associated with smuggling, confirming that the dominant problem is domestic under-declaration rather than cross-border inflows.



RANK	PRIMARY FORM	RELATIVE SIGNIFICANCE	EVIDENCE AND INDICATORS
1	**Local tax evasion through illicit production / DNP cigarettes**	Highest and growing– dominant by far	This is by far the dominant form of illicit tobacco trade in South Africa, accounting for approximately 81.2% of the illicit cigarette market (around 26 billion sticks). The channel is driven primarily by under-declaration by licensed or legally registered manufacturers, who produce large volumes but declare only a portion for excise purposes, allowing the remainder to enter the market as low-priced duty-not-paid cigarettes. This includes practices such as under-reporting of output, ghost exports, invoice manipulation, undeclared production shifts and weaknesses in bonded-warehouse oversight. This confirms that South Africa's illicit tobacco market is primarily a domestic excise and enforcement problem, rather than a border-led smuggling problem.
2	**Smuggling and contraband**	High – but secondary	Smuggling accounts for approximately 18.8% of the illicit cigarette market (around 6 billion sticks). This includes cigarettes entering South Africa without being declared to SARS, primarily via the Port of Durban and inland border routes, particularly those linked to Zimbabwe and Mozambique. These flows may include contraband, illicit whites and undeclared commercial imports. While still significant, the scale of this channel is materially smaller than domestic illicit production.
3	**Other/residual channels**	Negligible	Sector evidence suggests that other commonly cited categories – including counterfeit/fake branded products, production at unlicensed sites, non-compliant products and unlawful imports through customs misdeclaration – are either negligible, not separately quantifiable, or largely embedded within the two dominant channels above. In the South African context, these should therefore be understood mainly as sub-mechanisms or facilitating practices, rather than major standalone market categories.

Source: Oxford Economics, BAT SA, Industry Survey

Cross-cutting illicit mechanisms and enabling conditions

These do not necessarily represent large standalone market-share categories, but rather mechanisms through which the dominant channels above are facilitated, concealed or operationalised.

MECHANISM / ENABLER	WHY IT MATTERS
Under-declaration by licensed manufacturers	The central mechanism underpinning South Africa's illicit tobacco market. Legally registered producers declare only part of their output and divert the rest into the domestic market without paying excise or VAT.
Ghost exports and diversion	Cigarettes declared for export are diverted back into the domestic market without duties being paid.
Bonded-warehouse and invoice manipulation	Weak controls create opportunities for undeclared production, false paperwork and excise leakage.
Smuggling and non-declaration at the border	Enables the smaller but still significant cross-border contraband channel.
Customs misdeclaration / unlawful imports	May facilitate some illicit inflows through false product classification, quantity or customs valuation, although this appears secondary to outright smuggling and domestic tax leakage.
Non-compliant products	Includes products with incorrect warnings, pack sizes or composition, often overlapping with broader illicit distribution rather than operating as a major standalone channel.
Counterfeit claims	Counterfeiting is often cited in industry narratives, but available evidence suggests it is not a major standalone driver of the South African illicit cigarette market relative to under-declared domestic production.

Interpretation and strategic significance

- The structure of South Africa's illicit tobacco market is important because it differs materially from the common perception that the problem is primarily one of border smuggling or fake products.
- Instead, the evidence suggests that the dominant challenge is systemic domestic tax leakage within the formal production system, where legally registered manufacturers or production networks are able to exploit weaknesses in excise oversight and push large volumes of undeclared cigarettes into the market.
- This has major policy implications. It means that while border control and customs enforcement remain important, interception alone cannot resolve the problem.
- The most significant gains are likely to come from stronger domestic excise enforcement, improved production monitoring, tighter bonded-warehouse controls, and more effective track-and-trace and audit systems.

Key demand-side drivers of illicit tobacco consumption in South Africa

Unlike many other illicit markets, demand for illicit tobacco is primarily driven by affordability rather than product scarcity. The combination of significant price differentials, widespread availability and entrenched consumer purchasing habits creates a self-reinforcing demand cycle that continues to sustain South Africa's illicit cigarette market.

DEMAND-SIDE DRIVER	DESCRIPTION	IMPACT
Price and affordability pressures	Large and persistent price differentials between legal and illicit cigarettes – typically 40%–70% cheaper – make illicit products the default choice for many smokers. Excise increases, inflation and rising input costs continue to push up legal cigarette prices, while constrained household incomes and high unemployment increase price sensitivity. As a result, consumers actively substitute toward lower-cost illicit alternatives.	Highest
High availability and retail penetration	Illicit cigarettes are widely accessible across both informal and semi-formal retail channels. Spaza shops, informal traders and taverns are key distribution points, with estimates suggesting that up to 75% of cigarettes sold in spaza shops are illicit. This extensive retail penetration makes illicit cigarettes easy to access in most communities, reducing barriers to purchase.	High
Entrenched post-ban consumer behaviour	The 2020 COVID-19 tobacco sales ban created a structural shift in consumer behaviour. During the ban, smokers transitioned to illicit supply channels out of necessity. Critically, these purchasing patterns became entrenched, with many consumers continuing to buy illicit cigarettes even after legal sales resumed. This has resulted in a permanent shift in demand away from the duty-paid market.	High
Economic hardship and income constraints	High levels of unemployment, inequality and cost-of-living pressure increase consumer price sensitivity. Many consumers respond to rising legal cigarette prices by switching to cheaper illicit alternatives rather than reducing consumption. For many low-income consumers, illicit products are not a discretionary choice but a financial necessity, particularly where smoking behaviour is habitual.	High
Low consumer deterrence and normalisation of illicit purchasing	Illicit cigarette consumption has become widely normalised, particularly in lower-income and informal retail environments. The widespread availability of illicit products reduces stigma and reinforces repeat purchasing behaviour, making illicit consumption part of routine buying patterns rather than an exception.	Moderate–High
Limited product differentiation and low perceived risk	Unlike alcohol, cigarettes are a highly standardised product, with limited perceived quality differentiation between legal and illicit brands for many consumers. This reduces the perceived risk of switching to illicit products, particularly when the price advantage is significant.	Moderate–High
Perceived low enforcement risk	Purchasing illicit cigarettes is generally perceived as low risk, with limited visible enforcement at the consumer or retail level. The widespread and open sale of illicit cigarettes reinforces the perception that there are minimal legal or reputational consequences.	**Moderate**

Source: Oxford Economics, BAT SA, Industry Survey

Supply Side Enablers of Illicit Tobacco Trade

Supply-side enablers are organised into three tiers based on their assessed impact on the scale, persistence and commercial viability of the illicit tobacco trade in South Africa. Tier 1 factors represent the core structural drivers of the market, while Tiers 2 and 3 are compounding or contextual factors that reinforce and scale the illicit supply chain.

Illicit tobacco in South Africa is structurally concentrated around a narrower set of high-impact enablers – most notably *domestic under-declaration by licensed manufacturers and weak excise enforcement.*

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High excise and tax burden South Africa applies one of the highest tobacco excise burdens in sub-Saharan Africa. Combined with VAT, the tax component accounts for a substantial share of the retail price of cigarettes, creating a wide price gap between legal and illicit products. This makes duty evasion highly profitable and provides a powerful commercial incentive for illicit supply.	**Weak factory monitoring and excise administration** Limited real-time monitoring of production facilities, bonded warehouses, tobacco leaf inventories and production reporting creates significant opportunities for undeclared production runs and excise leakage. Reliance on producer self-reporting, periodic audits and limited real-time verification constrains SARS's ability to reconcile declared production with actual output, enabling large-scale under-declaration and duty evasion.
Under-declaration by licensed manufacturers The dominant supply-side driver is the large-scale under-declaration of output by legally registered manufacturers. Factories can run undeclared shifts, produce off-book volumes and divert cigarettes into the domestic market without excise being paid. This distinguishes South Africa from many comparable markets where smuggling is the primary illicit channel.	**Weak track-and-trace and outdated excise control systems** The absence of a robust, real-time track-and-trace system makes it difficult to reconcile declared production with actual output. This significantly weakens enforcement and allows duty-not-paid cigarettes to enter the market with a low risk of detection.
Tier 2 – Structural & Systemic Drivers	
High profitability and low marginal cost of illicit production Illicit tobacco offers exceptionally attractive margins. Licensed manufacturers operating off-book can use existing infrastructure with minimal incremental cost, while unregistered producers face relatively low barriers to entry. This creates a highly favourable risk-return profile for illicit operators.	**Fragmented enforcement & weak inter-agency coordination** Enforcement responsibilities are split among SARS, SAPS, the NRCS and other authorities, with limited coordination, data sharing and investigative follow-through. This fragmentation weakens the capacity for disruption, inspection and prosecution.
Large-scale local manufacturing capacity South Africa has a well-established cigarette manufacturing base capable of sustaining high-volume illicit output. This means the illicit market can be supplied domestically at scale without relying primarily on imports.	**Low probability of detection and prosecution** Even where illicit production or distribution is identified, enforcement follow-through is often limited. Low prosecution rates and relatively weak penalties reduce deterrence and make illicit tobacco a low-risk, high-reward activity.
Organised criminal networks mimicking legal supply chains Illicit tobacco distribution increasingly mirrors legitimate commercial models, including structured pricing, volume discounts, reliable logistics and entrenched retail relationships. This operational sophistication makes illicit networks resilient and difficult to disrupt.	**Porous borders, customs misdeclaration and corruption** Although smuggling is secondary to domestic production, illicit inflows persist due to porous borders, false customs declarations, undervaluation and corruption at key entry points, particularly at the Port of Durban and selected land borders.
Strong informal and low-regulation retail distribution networks Spaza shops, informal traders, taverns and street vendors provide extensive downstream channels for illicit cigarettes, allowing low-priced products to reach consumers easily and with minimal friction.	**Weak retail-level enforcement** Limited inspection and sanctioning of retail outlets allows illicit cigarettes to be sold openly, often below the minimum collectable tax threshold, with little risk of intervention.

INDUSTRY DYNAMICS, INCENTIVES & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 3 – Market-Level & External Factors	
COVID-19 sales ban as a structural market accelerator The 2020 tobacco sales ban significantly accelerated the growth of illicit tobacco networks by expanding consumer reliance on illegal channels, strengthening supplier relationships and entrenching alternative distribution systems. Its effects have persisted well beyond the ban itself.	**SA's role as a regional manufacturing and distribution hub** South Africa serves as both a major cigarette production base and a regional distribution hub, increasing the complexity of monitoring licit and illicit flows across both domestic and cross-border supply chains.
Strong downstream demand for low-cost cigarettes Persistent demand for cheaper cigarettes supports the scalability and resilience of illicit supply, particularly where consumers are highly price sensitive, and illicit products are widely accepted.	**Regional enforcement gaps and weak cross-border coordination** Inconsistent enforcement and limited intelligence-sharing with neighbouring countries weaken regional containment and enable illicit movement through southern African trade corridors.

Sources: Industry Survey conducted by Econometrix; WHO; TCDI

The Illicit Tobacco Supply Chain | Five-stage Flow

1 INPUTS / PRODUCTION ENABLERS

Raw Materials & Production Capacity — LIMITED SA JURISDICTION — LIMITED INTERVENTION

RAW MATERIAL SOURCES

Tobacco leaf and cut filler diverted from legitimate supply chains · Untaxed or undeclared inputs sourced through informal and cross-border networks · Low-cost inputs supplied by unregistered operators

PRODUCTION ENABLERS

Licensed factory infrastructure used for undeclared production · Bonded-warehouse stock accessed by complicit operators · Existing machinery and legal manufacturing capacity used to support off-book output

ENFORCEMENT LEVER

Stronger controls over tobacco leaf and cut-filler supply chains are important, but the **highest-value intervention is tighter oversight of licensed production inputs and bonded-warehouse movements**.

International customs cooperation and bilateral engagement remain relevant for imported inputs and cross-border leakage.

2 PRODUCTION

Illicit Domestic Manufacturing — TIER 1 SUPPLY-SIDE MECHANISM

PRODUCTION MECHANISMS

Licensed manufacturers running undeclared off-book shifts · Under-declared production volumes · Falsified invoices and manipulated records · Unregistered manufacturers operating outside the excise system

PRODUCT TYPES

Branded cigarettes produced without excise declaration · economy brands sold below the minimum collectable tax (MCT) threshold · untaxed local brands and undeclared stock entering informal retail channels.

ENFORCEMENT IMPLICATION

Unlike most markets where smuggling dominates, **SA's illicit tobacco market is driven primarily by domestic under-declaration by licensed manufacturers**.

Effective intervention requires real-time production monitoring, stronger bonded-warehouse controls, excise audit capacity and a robust track-and-trace system to verify declared output against actual production volumes.

3 CROSS-BORDER FLOWS ★

Smuggled & Misdeclared Imports — ★ PRIMARY BORDER INTERVENTION POINT

KEY ENTRY POINTS

Port of Durban · Beitbridge and inland border routes linked to Zimbabwe and Mozambique · OR Tambo and Cape Town airports · Informal land crossings

ENTRY MECHANISMS

Non-declaration at the border · misdeclaration of product type or quantity · undervaluation of imports · false customs documentation · concealment within mixed cargo · round-tripping and duty-free diversion · corrupt facilitation at border posts.

ENFORCEMENT IMPLICATION

Although secondary to domestic illicit production, **cross-border inflows remain an important component of the market**. Limited inspection capacity, high trade volumes and corruption risks allow undeclared and misdeclared cigarettes to enter virtually undetected.

Border control remains a necessary intervention point, but cannot resolve the problem in isolation.

4 DISTRIBUTION

KEY ACTORS

Unlicensed distributors supplying spaza shops and informal retailers · Informal market hubs and township wholesalers · Organised networks offering structured pricing, delivery routes and volume discounts

DISTRIBUTION MODEL

Illicit tobacco moves through **largely untraceable local networks that increasingly mirror formal logistics systems**. Below-MCT pricing is used to compete aggressively at the retail level and expand market penetration.

ENFORCEMENT IMPLICATION

Once illicit cigarettes enter local distribution channels, they become harder to trace and disrupt. Effective intervention requires **market intelligence, post-clearance audits, retail inspections and coordinated enforcement between SARS, SAPS and local authorities**, rather than relying on border controls alone.

5 DOMESTIC RETAIL CHANNELS

Multiple Routes to Consumer — MAIN ACCESS POINT — MOST VISIBLE CONSUMER INTERFACE

Channel 1
Informal retail

Distributor/intermediary → Spaza shop/informal retailer → Consumer

- Dominant channel. Spaza shops and informal retailers are the primary route to market for illicit cigarettes. Products are typically sold well below compliant price thresholds and remain highly accessible.

Channel 2
Street & open-market sales

Informal supplier/local hub → Street vendor/open market → Consumer

- High-volume community channel. Street vendors often source directly from informal wholesalers or local market hubs. Single-stick sales reduce affordability barriers and increase consumer access.

Channel 3
Community outlets & informal on-trade

Informal distributor → Shebeen/tuck shop/neighbourhood outlet → Consumer

- Embedded local channel. Shebeens, tuck shops and community outlets frequently stock illicit cigarettes alongside legitimate products, extending availability into township and rural markets.

ENFORCEMENT IMPLICATION

Retail-level distribution is the most visible point of illicit market penetration, but also one of the hardest to regulate. **Persistent below-MCT pricing remains one of the clearest indicators of illicit product** and should be a core trigger for inspection and enforcement activity.

Source: SARS enforcement data, industry intelligence, Tobacco Institute of Southern Africa, WHO, TCId.

SCALE OF ILLICIT TOBACCO – PENETRATION RATE[53]

Methodological approach

Direct measurement of illicit tobacco trade is inherently challenging, as duty-not-paid (DNP) production, smuggling and tax leakage are deliberately concealed from official reporting systems.

However, unlike several other sectors assessed in this report, the South African tobacco market has been subject to extensive industry and economic analysis, including modelling by Oxford Economics and related sector research. These studies provide a structured estimate of illicit penetration by reconciling total cigarette consumption with legally reported duty-paid (DP) volumes.

This approach estimates the total factory-manufactured cigarette (FMC) market using:

- incidence and average daily consumption (ADC) data (Kantar)
- population estimates (Statistics South Africa and the United Nations)

The legal (DP) market is then derived from:

- domestic excise receipts (National Treasury)
- recorded import volumes (DTIC)

The illicit (DNP) segment is calculated as the residual between total consumption and declared legal sales, providing a comprehensive estimate of illicit market size.

This methodology is analytically robust because it captures all forms of illicit activity, including domestic under-declaration, smuggling, ghost exports and tax leakage, rather than relying solely on seizures or trade discrepancies.

Estimated market size and penetration

Based on this approach, the illicit cigarette market in South Africa is estimated at approximately:

- 23.9 billion sticks in 2024
- out of a total FMC market of approximately 36.2 billion sticks

This implies an illicit penetration rate of approximately **66% of total cigarette consumption.**

In practical terms, this means that approximately **two out of every three cigarettes sold in South Africa are illicit (DNP).**

This places South Africa among the countries with the highest illicit tobacco penetration rates globally and reflects a fundamentally distorted market structure in which the illicit segment now dominates the legal market.

[53] *Source: Oxford Economics; The Impact Of The Tobacco Industry In South Africa, Aug 2025 (commissioned by SA Tobacco Transformation Alliance)*

Market evolution and structural shift

South Africa's illicit tobacco market has expanded rapidly over the past two decades:

- Mid-2000s: Illicit share below 10%
- 2017: Increased to approximately 30–35%
- 2019: Reached approximately 38%

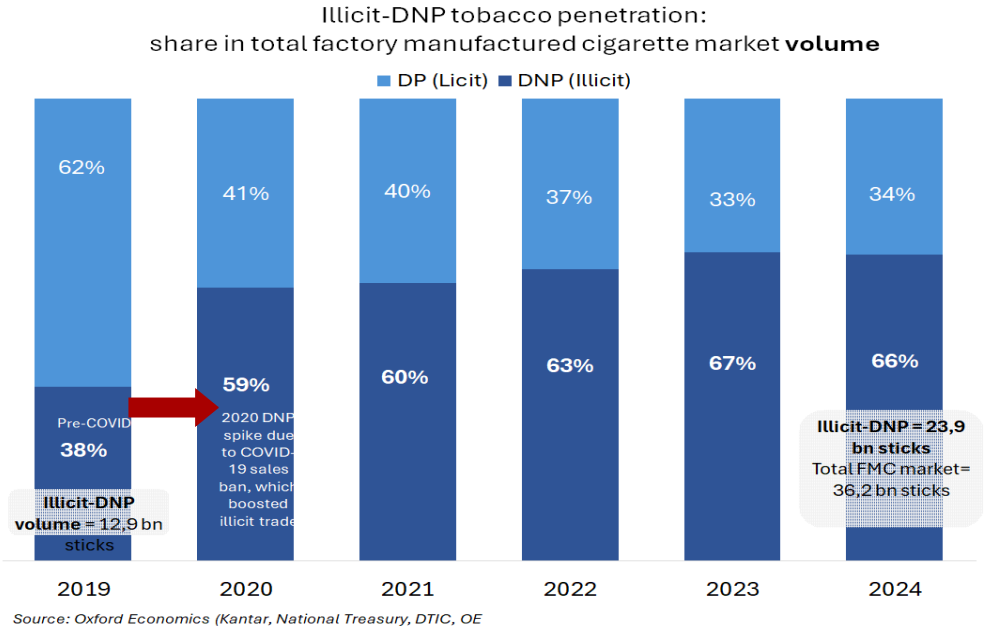
The 2020 COVID-19 tobacco sales ban marked a major structural break. The ban unintentionally accelerated the expansion of illicit supply chains by:

- enabling criminal networks to scale production
- expanding informal distribution channels
- and permanently shifting consumer purchasing behaviour

As a result, the market entered an inverted structure in which illicit DNP volumes exceeded legal duty-paid volumes by a wide margin. Between 2019 and 2024:

- DNP volumes increased by approximately 86%
- while DP volumes declined sharply

By 2021–2022, illicit penetration had reached 60–63%, and by 2024, exceeded 66%, indicating a sustained and worsening trend rather than a temporary shock.



Source: Oxford Economics (Kantar, National Treasury, DTIC, OE

More recent industry statements suggest the situation may have deteriorated further. In January 2026, BAT South Africa stated that illicit cigarettes were estimated to account for approximately **75% of the market**, citing the scale of illicit trade as a key factor underpinning its decision to cease local cigarette manufacturing in South Africa. This estimate is directionally consistent with evidence that the illicit market continues to expand.

Legal market contraction and fiscal implications

The expansion of illicit tobacco has been accompanied by a sharp contraction in the legal market:

- Duty-paid volumes declined significantly over the period
- Domestic excise receipts show a clear structural break from 2020 onwards

By 2024, excise revenue remained broadly comparable to levels observed during the 2020 sales ban period.

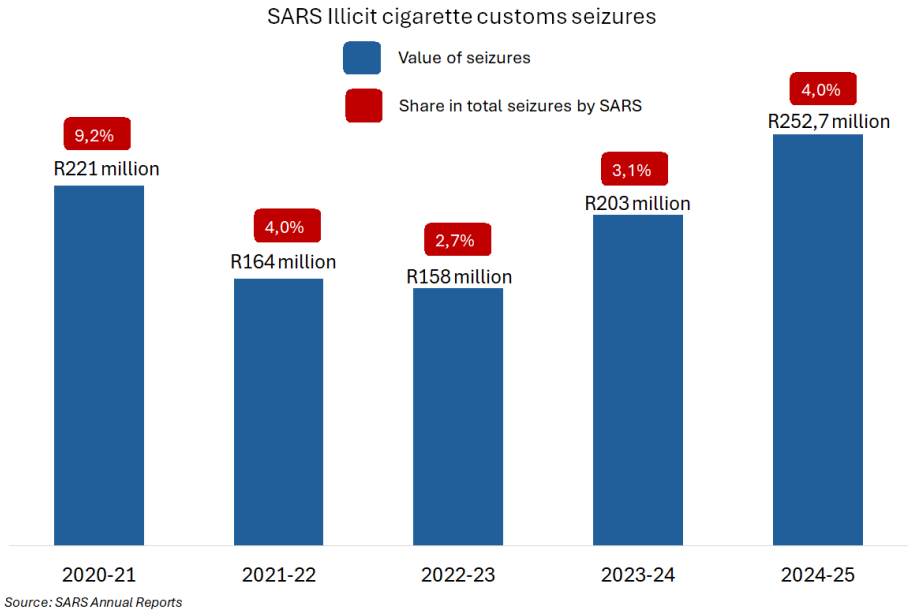
Cumulatively, this reflects a substantial erosion of the tax base, with billions in forgone excise revenue over the post-pandemic period.

Enforcement evidence and market visibility

SARS enforcement data provides additional evidence that the illicit cigarette market is far larger than what is being intercepted through routine enforcement activity.

According to SARS annual reports:

- cigarette seizures ranged between approximately R158 million and R252.7 million per year between 2020/21 and 2024/25; and
- cigarettes accounted for 2.7% to 9.2% (average: 4.6%) of total customs seizure value



Source: SARS Annual Reports

While this confirms that smuggling remains active, seizure values represent only a small fraction of the total illicit market.

Taken together with market estimates, this indicates that:

- enforcement is capturing only a limited visible portion of illicit activity
- and that the illicit market is deeply entrenched within domestic production and distribution systems, rather than primarily driven by border smuggling

Interpretation of the Illicit Market Penetration Estimate



Source: Oxford Economics consumption-residual model. Reconciles total FMC consumption (Kantar incidence × Statistics SA population) against duty-paid volumes from National Treasury excise receipts and DTIC import records. DNP = residual between total and declared legal sales; captures domestic under-declaration, smuggling, ghost exports and tax leakage.

The estimated 66% penetration rate should be interpreted as a **volume-based measure** of illicit tobacco market share, reflecting the scale of consumer exposure to illicit cigarettes and the extent of displacement of duty-paid sales. At formal market-equivalent prices, this translates into an estimated illicit market value of approximately **R45 billion** in 2024.

Illicit tobacco consumption is primarily driven by price differentials rather than substantial differences in product characteristics. As a result, illicit trade is largely price-driven and volume-dominant, making volume share a reliable proxy for the scale of market displacement and tax leakage, unlike sectors where value and volume penetration diverge significantly.

Overall, the results indicate that illicit tobacco in South Africa is not a marginal phenomenon, but a dominant parallel market that:

- exceeds the duty-paid market in size,
- undermines excise-based public health policy,
- erodes fiscal revenue, and
- distorts competition across the entire value chain.

ECONOMIC IMPACT OF ILLICIT TOBACCO TRADE IN SOUTH AFRICA



The Tobacco Value Chain and Economic Linkages

The tobacco industry contributes to South Africa's economy through a value chain that spans the primary, secondary and tertiary sectors. The sector links agricultural production with manufacturing, distribution and retail activities, generating income, employment, tax revenue and business demand across extensive upstream and downstream linkages.

The tobacco value chain is highly integrated, connecting a broad network of suppliers, producers and service providers across the economy.

➔ Upstream, the value chain begins with tobacco cultivation and primary processing activities, including tobacco farming, grower co-operatives, leaf curing, grading and processing. These activities are supported by suppliers of agricultural inputs, chemicals, and packaging materials, as well as logistics, transport and warehousing services.

The manufacturing stage comprises cigarette and other tobacco product production, which is relatively capital-intensive and concentrated among a limited number of licensed producers.

➔ Downstream, the value chain extends through distributors, wholesalers, formal retailers, independent retailers, spaza shops and other informal traders before reaching consumers. These channels support economic activity across both the formal and informal economy.

Industry Structure and Route to Market

The tobacco industry is highly concentrated at the production level, with a limited number of licensed manufacturers accounting for the majority of domestic output. However, the route to market is considerably more fragmented, particularly at the wholesale and retail levels.

Products reach consumers through a combination of:

- Formal retail channels, including supermarkets, forecourts, convenience stores and retail chains; and
- Informal retail channels, including spaza shops, street vendors, market stalls and other informal traders.

This fragmented distribution environment is a defining feature of the market. While it supports broad consumer access, it also creates multiple points of entry and circulation for illicit cigarettes once products move beyond the factory gate.

Value Chain Vulnerabilities and Illicit Trade Exposure

A defining characteristic of South Africa's illicit tobacco market is that much of the illicit activity occurs within the domestic production and excise environment through under-declaration and tax leakage, rather than through purely external supply channels.

Key vulnerabilities arise at multiple points along the value chain:

- Production stage: Under-declaration of output by licensed manufacturers enables substantial volumes of cigarettes to enter the market without excise duties being paid.
- Excise and warehousing stage: Weak factory monitoring, limited oversight of bonded warehouses, and inadequate production verification create opportunities for excise leakage and undeclared production.

- Distribution stage: Informal wholesale networks facilitate the rapid movement of illicit product through largely untraceable supply channels.
- Retail stage: Fragmented informal retail networks allow illicit cigarettes to be sold widely, often below the minimum collectable tax threshold and with limited risk of detection.

As a result, illicit tobacco is not confined to isolated points within the supply chain but interacts with and permeates multiple stages of the value chain, from production through to final sale.

Financial Crime and Systemic Risk Considerations

Illicit tobacco trade also presents broader financial crime risks, including money laundering, tax evasion and illicit financial flows. The Financial Action Task Force (FATF) has identified the illicit tobacco trade as a significant predicate offence due to its:

- High profitability;
- Cash-intensive nature; and
- Relatively low risk of detection and prosecution.

These risks can arise across the value chain, from raw material procurement and manufacturing through to distribution and retail, particularly in markets characterised by high levels of illicit trade penetration.

Economic Impact of Illicit Tobacco Trade

Introduction

The illicit tobacco trade imposes high economic costs on South Africa's formal tobacco sector. The estimated illicit market of approximately 23.9 billion cigarette sticks in 2024, equivalent to around 66% of total factory-manufactured cigarette consumption, reflects the substantial scale of market activity occurring outside the formal excise and regulatory framework.

Importantly, this estimate should not be interpreted as a direct loss to GDP. Rather, it represents the volume of cigarette consumption displaced from legal, tax-compliant supply chains into illicit channels. The economic impact arises from the domestic value added, tax revenue, employment and business activity that would have been generated had this volume flowed through formal manufacturing, distribution and retail channels.

Beyond displacing legal sales, illicit trade weakens the competitiveness of compliant manufacturers, erodes market share, discourages investment and reduces the incentives for long-term expansion within the formal sector. The sustained growth of the illicit market also undermines the effectiveness of excise policy and weakens the broader regulatory framework governing tobacco production and distribution.

The economic impact of illicit tobacco trade operates through several interconnected channels:

- Displaced production and industry revenue – legal manufacturers lose market share and production volumes to untaxed and undeclared cigarettes, reducing formal sector output and value added;
- Reduced wholesale and retail activity – formal distributors, wholesalers and retailers lose sales to illicit supply channels, reducing economic activity across the legal value chain;
- Foregone tax revenue – excise duties, VAT and corporate taxes associated with displaced legal sales are lost to the fiscus, representing one of the most significant economic consequences of illicit tobacco trade;
- Employment losses – reduced activity within formal manufacturing, logistics, distribution and retail networks limits employment creation and places existing jobs at risk;
- Suppressed investment and competitiveness – persistent illicit competition weakens incentives for capital investment, factory expansion, product development, compliance systems and long-term business growth; and
- Financial crime and governance risks – illicit tobacco trade is frequently associated with tax evasion, illicit financial flows and organised criminal activity, creating broader governance and enforcement challenges beyond the tobacco sector itself.

The impact modelling that follows quantifies the measurable direct effects of the illicit tobacco trade on output, employment and fiscal revenue using the estimated volume of illicit cigarette consumption and the associated level of legal-market displacement. Broader impacts on investment, business confidence, industry competitiveness and financial crime are discussed qualitatively but are not directly quantified.

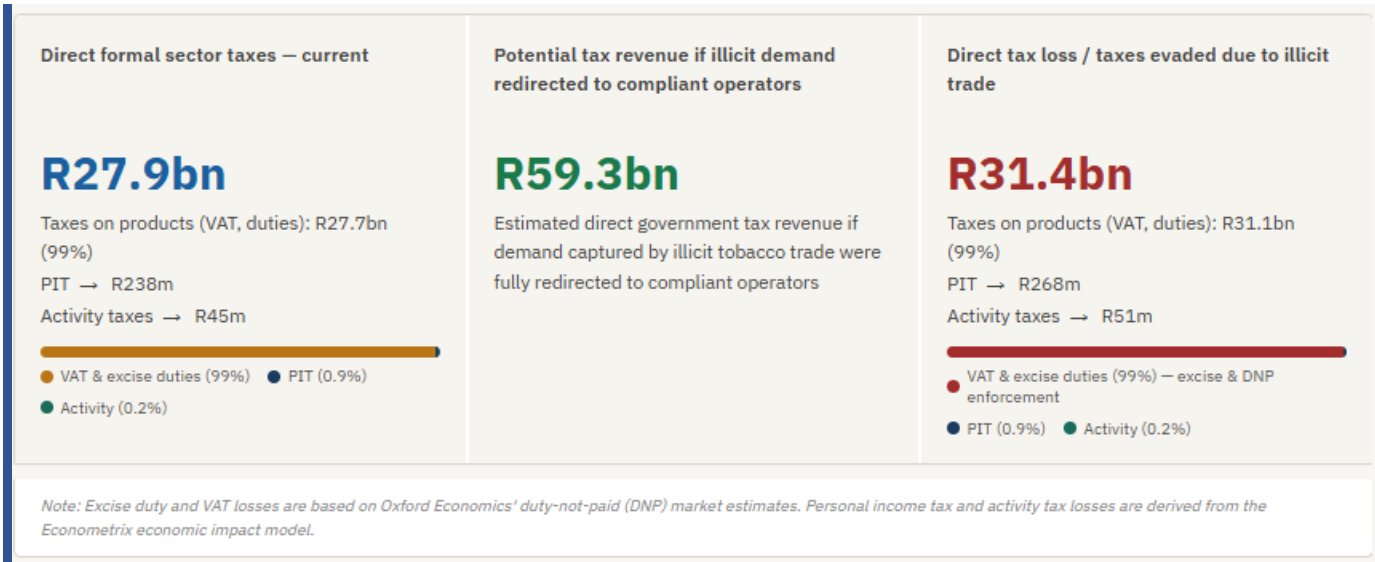
Methodological Note

This study **focuses on the direct economic, employment and fiscal impacts of illicit tobacco trade** and does not include broader economy-wide multiplier effects in the central estimates. While illicit trade is likely to generate additional indirect and induced impacts through supply-chain linkages, reduced business activity and lower household incomes, quantifying these effects introduces a greater risk of overlap and double-counting across sectors. **The direct-impact approach therefore provides a conservative and transparent estimate** of the economic costs associated with the illicit tobacco trade. As a result, the impacts presented in this report should be interpreted as a lower-bound estimate of the true economic cost of illicit tobacco trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Tobacco Trade

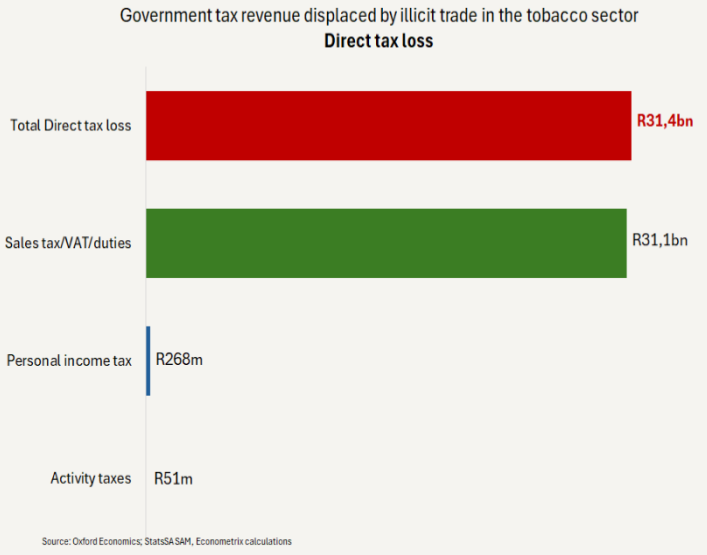
The tobacco sector is a significant contributor to South Africa's tax base despite its relatively small economic footprint. The industry generates approximately R27.9 billion in direct government revenue annually through excise duties, VAT, personal income tax and other production-related taxes. Taxes on tobacco products account for virtually all of this contribution, reflecting the substantial excise burden embedded in the retail price of cigarettes.

The illicit tobacco trade erodes this contribution by diverting cigarette consumption away from the formal, duty-paying market and into channels that operate partially or entirely outside the tax system. The economic harm is therefore not limited to lost industry revenue but extends directly to government finances through foregone excise duties, VAT and other taxes that would otherwise have been generated through legal sales.



The fiscal suppression effect

Illicit tobacco trade is estimated to have resulted in approximately R31.4 billion in direct tax losses in 2024. The overwhelming majority of these losses (R31.1 billion; Oxford Economics' estimate of the DNP cigarette market) comprise unpaid excise duties and VAT, including an estimated R25.7 billion in unpaid excise duties and R5.3 billion in unpaid VAT. Econometrix estimates a further R319 million in foregone taxes associated with the displacement of formal economic activity, comprising approximately R268 million in personal income tax (PIT) and R51 million in activity-related taxes.



Consequently, direct tax revenue from the tobacco sector could increase from approximately R31.4 billion currently to an estimated R59.3 billion if the demand currently captured by illicit trade were redirected to compliant operators.

The scale of these fiscal losses reflects the exceptionally high penetration of illicit cigarettes. Oxford Economics estimates that approximately 23.9 billion illicit cigarettes were consumed in 2024, compared with 12.2 billion duty-paid cigarettes, implying that illicit products accounted for approximately 66% of total factory-manufactured cigarette consumption. As a result, the taxes associated with the illicit market are estimated to exceed those currently collected from the legal market.

Unlike many other sectors, where illicit activity is driven primarily by smuggling or counterfeiting, South Africa's illicit tobacco market is characterised largely by domestic under-declaration of production and excise leakage within the manufacturing and distribution system. Consequently, fiscal losses arise not only from illicit imports but also from cigarettes produced or distributed outside the formal excise net.

The exceptionally high level of illicit penetration substantially undermines the effectiveness of tobacco taxation as both a revenue-generating and public health policy instrument. While high excise duties are intended to discourage consumption and raise government revenue, the widespread availability of untaxed cigarettes weakens both objectives by enabling consumers to substitute legal products with substantially cheaper illicit alternatives. Beyond the direct losses of excise duties and VAT, illicit trade also suppresses personal income tax and other activity-related taxes by displacing formal production, distribution, retail activity and employment.

The fiscal argument for enforcement

The tobacco sector represents one of South Africa’s most tax-intensive consumer industries, meaning that improvements in compliance and enforcement can generate substantial fiscal returns.

- Potential revenue recovery could be achieved through:
- stronger factory-level production monitoring and verification;
- enhanced oversight of bonded warehouses and tobacco leaf movements;
- implementation of an effective real-time track-and-trace system;
- improved excise administration and auditing capacity;
- stronger enforcement against under-declaration and illicit distribution networks; and
- enhanced coordination between SARS, SAPS and other enforcement agencies.

Unlike increases in tax rates, these gains could potentially be achieved through improved compliance within the existing excise framework, strengthening both government revenue collection and the integrity of the legal tobacco market.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Tobacco Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by the illicit tobacco trade using a three-step approach.

South Africa's tobacco sector comprises tobacco processing, cigarette manufacturing, packaging, distribution and retail activity. Illicit tobacco displaces formal value added across this value chain by diverting cigarette consumption away from duty-paying manufacturers, distributors and retailers and into channels operating outside the formal tax and regulatory framework.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the tobacco sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The Oxford Economics consumption-residual model estimates that approximately 23.9 billion cigarettes, equivalent to around 66% of total factory-manufactured cigarette consumption, were consumed through illicit channels in 2024.

Using the corresponding formal market-equivalent value and converting from purchasers' prices to basic prices using the relevant Supply-Use Table adjustments, the estimate equates to approximately R22.8 billion in displaced formal-sector production output.

Step 3 – Estimate direct GDP displacement

The direct GDP impact of illicit tobacco trade is estimated at approximately R35.9 billion annually, comprising:

- **Direct GVA displaced**: R4.8 billion – derived by applying the sector's GVA-to-output ratio to the displaced production output of R22.8 billion.
- **Foregone taxes on products**[54]: R31.1 billion† – primarily excise duties and VAT evaded through illicit cigarette sales.

Key methodological notes

- The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.
- The broader economy-wide impacts are likely to be materially larger once upstream supply-chain and household-spending effects are considered, but these have not been quantified in the central estimate in order to maintain a conservative approach.

[54] *Foregone taxes on products are based on Oxford Economics' duty-not-paid (DNP) market model and reflect estimated excise duties and VAT evaded through illicit cigarette trade. Direct GVA displacement is derived separately using the Statistics SA SUTs and the Econometrix economic impact model.*

- The estimated fiscal losses exceed the taxes currently collected from the legal market because the illicit cigarette market is substantially larger than the duty-paid market. Oxford Economics estimates that there are approximately 23.9 billion duty-not-paid cigarettes in 2024 compared with 12.2 billion duty-paid cigarettes.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	Formal sector direct GVA baseline (current, illicit trade present)	R13.3bn
2	Illicit market estimate (formal-equivalent prices)	R45.4bn
	Less: trade and transport margins ‡	−R13.3bn
	Less: taxes on products †	−R31.1bn
	= Displaced formal production output (at basic prices)	R22.8bn
	× Sector GVA/output ratio (SUT-derived)	~21.0%
3a	= Direct GVA displaced by illicit trade	R4.8bn
3b	+ Foregone taxes on products due to displaced activity †	R31.1bn
3c	= Direct GDP impact of illicit trade	R35.9bn
COUNTERFACTUAL *	Direct tobacco GVA if illicit trade were eliminated	~R18.1bn

* **Counterfactual** = estimated direct tobacco sector GVA if illicit tobacco trade were eliminated and displaced consumption shifted to the formal sector.

† Foregone taxes on products are based on Oxford Economics' duty-not-paid (DNP) market model and reflect estimated excise duties and VAT evaded through illicit cigarette trade. Direct GVA displacement is derived separately using the Statistics South Africa Supply Use Tables (SUTs) and the Econometrix economic impact model.

‡ The negative trade and transport margin is a Supply-Use Table (SUT) adjustment arising from the exceptionally large share of excise duties and VAT embedded in tobacco product prices. It does not imply negative margins within the tobacco value chain but reflects the reconciliation of purchasers' prices to basic prices within the national accounts framework.

Key results

- South Africa's tobacco sector is highly tax-intensive, with excise duties and VAT accounting for a substantial share of the final retail price of cigarettes. Illicit tobacco trade displaces formal economic activity throughout the value chain, from manufacturing and packaging to wholesale, distribution and retail.
- The exceptionally high penetration of illicit cigarettes means that fiscal losses exceed the taxes currently collected from the legal market, reflecting the fact that illicit cigarette consumption is estimated to be substantially larger than the duty-paid market.
- Unlike many countries where illicit tobacco is primarily driven by smuggling, South Africa's illicit market is closely linked to domestic under-declaration and excise leakage within the production system itself.
- The result suggests that illicit tobacco trade materially suppresses measured sector output, value added and tax revenues. Under the working estimate, illicit trade is associated with approximately R22.8 billion in displaced formal-sector production output, R4.8 billion in direct sector GVA displacement and R35.9 billion in total GDP impact annually.
- The scale of illicit tobacco trade relative to the formal sector is exceptional, and records **one of the highest levels of illicit market displacement** among all sectors analysed in this report.

The estimated illicit market is equivalent to approximately 112.5% of the formal tobacco sector. This displacement ratio is derived by expressing the estimated illicit market at formal-sector equivalent prices as a percentage of the estimated formal market size.

On this measure, the illicit tobacco market is larger than the legal market.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal-sector production output displaced
R13.3bn	**R4.8bn**	**R35.9bn†**	**R18.1bn**	**R22.8bn**
0.2% of total SA GVA	annually through illicit tobacco trade	Direct GVA displaced (R4.8bn) *plus* foregone taxes on products due to displaced activity (R31.1bn)†		annually by illicit tobacco trade (at basic prices)

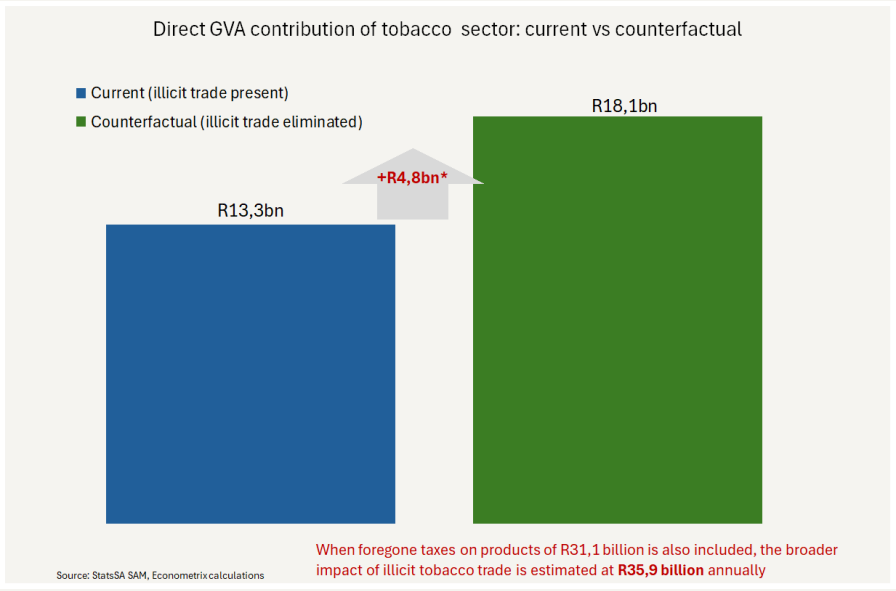
Market-size displacement ratio ‡ **112.5%** *Illicit market exceeds formal market size*

† GDP impact = direct GVA displaced plus foregone taxes on products associated with illicit cigarette consumption. Foregone taxes on products comprise estimated excise duties and VAT evaded through illicit cigarette trade, based on Oxford Economics' duty-not-paid (DNP) market model. Direct GVA displacement is derived using the Statistics South Africa Supply Use Tables (SUTs) and the Econometrix economic impact model. In the national accounts framework, GDP equals GVA plus net taxes on products.
‡ Displacement ratio = estimated illicit market value as share of the formal-sector household consumption expenditure base at comparable market prices.

The illicit trade suppression effect

An estimated 23.9 billion cigarettes (valued at R45.4 billion) were consumed through illicit channels in 2024, equivalent to approximately 66% of total factory-manufactured cigarette consumption.

This diverts demand away from compliant manufacturers, distributors and retailers and significantly suppresses the sector's measured contribution to the economy.



Under the working estimate, the illicit tobacco trade is associated with approximately R22.8 billion in displaced formal-sector production output, R4.8 billion in direct sector GVA displacement and R35.9 billion in total GDP impact annually, once foregone taxes on products are included.

As a result, official measures of the tobacco sector's economic contribution understate the industry's potential contribution in the absence of large-scale illicit trade. The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are considered, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

The tobacco sector represents one of the clearest examples of how illicit trade can suppress economic activity while simultaneously eroding the tax base.

Reducing illicit cigarette consumption would not only increase excise and VAT collections, but would also support higher levels of formal manufacturing output, packaging activity, distribution and retail trade throughout the value chain.

Given South Africa's substantial domestic cigarette manufacturing footprint, the benefits of improved compliance would accrue largely within the domestic economy rather than through increased imports.

Enforcement measures that reduce illicit market penetration therefore have the potential to generate a dual benefit: strengthening government revenue while supporting formal-sector production, investment and employment within a regulated manufacturing industry.

Contribution To SA's Employment and the Impact of Illicit Tobacco Trade

The tobacco sector supports employment across tobacco processing, cigarette manufacturing, packaging, logistics, wholesale distribution and retail. Although relatively small compared with other manufacturing industries, the sector supports a specialised workforce with a high concentration of skilled employees.

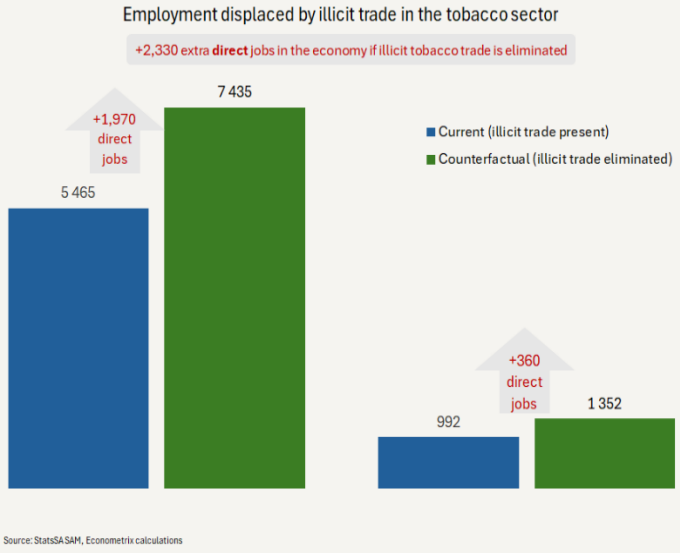
- **Skilled workers** account for approximately 78.2% of formal sector employment, reflecting the capital-intensive nature of cigarette manufacturing and processing. **Unskilled workers** account for approximately 22.0% of direct formal employment.
- **Informal workers** account for approximately 15.4% of total direct employment, reflecting the role of informal retail channels in the distribution and sale of tobacco products.
- While illicit trade affects both formal and informal participants, sustained excise leakage, under-declaration and illicit distribution reduce incentives for investment, production expansion and employment growth across the formal tobacco value chain.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment *if illicit demand shifted to compliant businesses*	Skilled formal job share
6,457 jobs	**~2,330 jobs**	**8,790**	**78.2%**
Formal: 5,465 (84.6%) Informal: 992 (15.4%)	Formal: 1,970 (84.5%) Informal: 360	*(formal and informal)*	Displacement affects a highly specialised skilled workforce.

The employment suppression effect

The tobacco sector currently employs approximately 6,457 people.

Applying the sector-specific direct GVA displacement ratio[55] of 36.1% to current employment levels suggests that approximately 2,330 direct formal and informal jobs are displaced by the illicit tobacco trade.



Total direct-sector employment could potentially reach approximately 8,790 direct formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant manufacturers, distributors and retailers.

These jobs represent employment that could potentially be supported across tobacco processing, manufacturing, packaging, logistics, distribution and retail if illicit trade were reduced and displaced demand recovered by the formal market.

The tobacco sector currently **supports approximately 142,933 formal and informal jobs across the broader South African economy** through upstream and downstream value-chain linkages. Consequently, the wider employment benefits of reducing illicit tobacco trade would extend beyond the sector's direct workforce, although these indirect and induced employment gains have not been quantified in the central estimates.

[55] *† Employment displacement is estimated by applying the sector-specific Direct GVA displacement ratio to current direct employment levels.*

The employment argument for enforcement

The employment impact of the illicit tobacco trade extends beyond lost sales. By diverting demand away from compliant manufacturers and distributors, illicit trade reduces incentives for investment, production expansion and workforce growth within the legal tobacco value chain.

The sector provides relatively high-productivity manufacturing and processing employment. Reducing illicit trade could therefore help preserve skilled industrial jobs, strengthen formal-sector employment and support further investment in domestic manufacturing capacity.

SECTOR CHAPTER

15

Toys and Games

Sector synopsis and economic impact assessment



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

PREPARED FOR

Consumer Goods Council of South Africa (CGCSA)

PREPARED BY

econometrix

Smart data. Smart decisions.

CHAPTER SYNOPSIS

KEY FINDINGS SUMMARY

CURRENT BASELINE

R8.7bn
Annual toys and games market (IMARC estimate)

11,045
Direct employment (formal+informal); 81% formal employment

R1.3bn
Direct sector GVA contribution; ~0.1% of SA GVA

75%
China's share of HS 9503 imports

Dominant supply corridor — one of the highest China shares of sectors studied

PRIMARY FORMS OF ILLICIT TRADE

1. **Counterfeiting: fake branded toys & games** — Highest

Sold openly in formal retail, informal markets and online channels alongside legitimate products, limiting channel-based enforcement and creating direct price competition with compliant businesses.

1. **Unlawful imports: misdeclaration of tariff heading, value or quantity** — Highest

Accounts for up to 80% of illicit trade; duties & VAT evaded at entry; often overlaps with counterfeiting, but is detected through customs and trade enforcement mechanisms.

3. **Smuggling: fully undeclared imports** — Moderate

Split consignments reduce detection risk. Operation LUDUS indicates that customs authorities detect only a fraction of illicit packages within affected containers, with some shipments linked to broader organised criminal networks.

KEY DEMAND DRIVERS

- **Price sensitivity** — counterfeit toys are sold at substantially lower prices; high unemployment and constrained household budgets amplify demand.
- **Brand aspiration** — demand for licensed brands (e.g. Disney, LEGO and Hasbro) drives substitution towards counterfeit products when genuine items are unaffordable.
- **Seasonal demand** — festive and holiday peaks intensify price pressure and increase consumers' willingness to purchase products of uncertain origin.

KEY SUPPLY ENABLERS — TIER 1

- **No mandatory toy safety inspections at ports** — SATAGA identifies this as the sector's most significant structural enforcement gap.
- **High duty and VAT evasion incentives** — near-total import dependence makes customs misdeclaration and undervaluation structurally attractive.
- **Open sale through mainstream retail and online channels** — counterfeit products are sold alongside legitimate goods, reducing channel-based enforcement opportunities and normalising illicit trade.

ILLICIT SUPPLY CHAIN

1	2	3	4	5
Origin	**Transit**	**Border Entry ★**	**Distribution**	**Retail**
China (75%), other Asia	Re-invoicing & relabelling via regional hubs	Durban · Cape Town · OR Tambo **No mandatory toy safety certification at ports** Split consignments reduce detection risk	Formal & informal wholesalers Retail distributors · online platforms	Shopping centres, informal markets, e-commerce, social media **Counterfeits sold alongside legitimate products**

★ Border entry is the primary intervention point. Because South Africa has virtually no domestic toy manufacturing, almost all illicit products enter through import channels. Counterfeit goods are then sold openly alongside legitimate products in mainstream retail and online channels, limiting channel-based enforcement opportunities.

ILLICIT PENETRATION RATE — TOYS & GAMES (WORKING ESTIMATE)

23%
Illicit penetration rate

~R1.9bn
per year

Working estimate anchored in the adjusted SUT structural benchmark (23%) and adopted for all economic, fiscal and employment modelling. The estimate is supported by the SATAGA 2024 industry survey, which recorded a 25% value penetration rate following a rapid increase from 5% in 2022, reflecting the growing prevalence of counterfeit toys, social media commerce and weakening enforcement. SATAGA's 35% volume penetration provides an upper-bound sensitivity measure, while the mirror trade estimate (11%–13%) captures the measurable import-channel component of a broader illicit market.

FISCAL DISPLACEMENT — ILLICIT TOYS & GAMES TRADE

CURRENT SECTOR TAX BASE

R1.3bn

Annual government revenue from toys & games sector

Taxes on products R1.1bn (84.6%) · PIT R193m · Activity taxes R37m

ANNUAL TAX LOSS — ILLICIT TRADE

R333m

Direct fiscal cost of illicit toys & games trade annually

Taxes on products R273m (82%) · PIT R50m · Activity taxes R10m

NATURE OF THE LOSS

82% of loss is VAT & customs duties — a border enforcement problem.

Consistent with the sector's near-complete import dependence: illicit trade operates primarily through customs misdeclaration, undervaluation and the importation of non-compliant goods that avoid applicable duties, VAT and product-safety compliance requirements.

POTENTIAL IF DEMAND REDIRECTED

R1.6bn

Potential tax revenue if illicit toys & games demand redirected to compliant operators

Counterfactual — not a guaranteed recovery figure

GDP & OUTPUT DISPLACEMENT — ILLICIT TOYS & GAMES TRADE

R1.3bn

Direct sector GVA — current

Formal sector baseline (illicit trade present)

R1.15bn

Formal-sector production output displaced annually

By illicit toys & games (at basic prices)

R272m

Direct sector GVA displaced annually

Sector value added; excl. taxes on products

R545m

Direct GDP impact annually

GVA R272m + foregone taxes on products R273m†

~R1.6bn

Potential GVA if illicit trade eliminated

EMPLOYMENT DISPLACEMENT — ILLICIT TOYS & GAMES TRADE

11,045

direct jobs

Formal: 8,982 (81.3%)
Informal: 2,063 (18.7%)

2,275

jobs displaced

Formal: 1,850 · Informal: 425

54.7%

low-skilled formal job share

One of the highest unskilled shares among sectors in this study

~13,320

jobs — potential direct employment

If illicit demand shifted to compliant businesses (formal and informal)

Current sector employment: 11,045 total



Formal: 8,982 (81.3%) Informal: 2,063 (18.7%)

OVERVIEW OF THE ILLICIT TOYS AND GAMES MARKET IN SA

Global context

Toys and games are among the most heavily counterfeited product categories globally, consistently ranking as the second-most affected sector in international IP crime. The EU toy sector alone loses approximately €1 billion annually to counterfeiting, equivalent to 8.7% of the sector's total sales (EUIPO, 2022). The sector is particularly exposed due to its combination of high-volume production, strong brand dependence, relatively low manufacturing costs and pronounced seasonal demand – characteristics that create favourable conditions for illicit trade at scale, particularly in price-sensitive markets.

Structural vulnerabilities in the value chain

The toys and games sector is highly vulnerable to illicit trade due to its globally fragmented supply chains, with manufacturing heavily concentrated in a limited number of countries – particularly China – and high import penetration in most consumer markets.

Authenticating products is inherently difficult, as counterfeit goods are specifically designed to replicate the appearance of legitimate branded items. Illicit operators exploit these dynamics through practices such as mislabelling, undervaluation, origin masking and fragmented shipping.

The rapid expansion of e-commerce has fundamentally altered the risk profile of the sector. Online marketplaces and social media platforms have significantly lowered barriers to entry for illicit sellers, enabling anonymous participation, rapid market access and direct-to-consumer distribution. These platforms often function as intermediaries with limited product verification, allowing counterfeit and non-compliant goods to be sold alongside legitimate products with minimal oversight. The increasing use of small-parcel logistics and courier networks further enables illicit operators to split shipments and evade detection, overwhelming traditional inspection and enforcement mechanisms.

Enforcement constraints and asymmetry

A key structural challenge in addressing the illicit toy trade is the imbalance in enforcement responsibilities. Monitoring and reporting of counterfeit products is largely borne by rights holders rather than platforms or regulators, resulting in reactive enforcement, delayed product removals and persistent re-entry of illicit sellers into the market.

The ease with which sellers can create multiple online identities, combined with limited transparency around seller information, significantly reduces the effectiveness of enforcement actions and allows illicit trade to scale with relatively low risk.

Demand and distribution dynamics

Demand for illicit toys and games is driven by a combination of price sensitivity, brand aspiration and limited consumer awareness. Many consumers are unable to distinguish between genuine and counterfeit products, particularly in online environments where illicit goods are presented alongside legitimate listings.

Counterfeit toys are distributed through a wide range of channels, including informal markets, street vendors, independent retailers, online marketplaces and social media platforms. Seasonality is a critical feature of the market, with demand peaking during gifting periods such as Christmas and school holidays. These periods are associated with a surge in counterfeit supply, as consumers seek lower-cost alternatives to high-demand branded products and legitimate supply chains may be constrained.

Unlike most consumer goods sectors, illicit toys and games are frequently sold openly in mainstream retail environments – including formal shopping centres, established retail outlets, major online platforms and social media

marketplaces – alongside legitimate products. This co-location significantly increases consumer confusion, as buyers are unable to reliably distinguish between authentic and counterfeit goods solely from the point of sale.

This dynamic also creates direct competitive pressure on legitimate retailers, who are required to comply with safety, regulatory and tax obligations and are therefore unable to match the significantly lower prices of counterfeit products. According to SATAGA (South African Toys and Games Association), the demand for illicit toys and games is driven by price sensitivity and brand aspiration, uniquely amplified by the open sale of counterfeit goods across all retail channels – including formal shopping centres, established retail outlets, online platforms and social media – where illicit goods are presented directly alongside legitimate listings.

The sector's core vulnerability is the purchaser-end user disconnect: adults make buying decisions but cannot readily distinguish counterfeit from authentic products, while child end users cannot assess safety or authenticity.

Seasonality intensifies this dynamic – demand peaks during gifting periods such as Christmas and school holidays, driving surges in counterfeit supply as consumers seek lower-cost alternatives to high-demand branded products. This normalised availability directly harms legitimate retailers, who cannot match counterfeit pricing while bearing the full cost of safety compliance, import duties and regulatory obligations.

Health and safety risks

Unlike most other illicit consumer goods categories, counterfeit toys pose direct and severe risks to children. Illicit producers routinely disregard safety standards, resulting in products that may contain toxic substances (such as lead and phthalates), small detachable parts that present choking hazards, unsafe batteries and electrical components, and inadequate labelling. These risks are particularly acute for infants and young children, who are often directly exposed to hazardous materials. The prevalence of unsafe toys underscores that illicit trade in this sector is not only an economic issue but also a significant public health concern.

South African context

In South Africa, illicit trade in toys and games poses a growing and increasingly visible threat. The market is characterised by widespread distribution through informal retail channels, intersection trading, unverified online platforms and social media marketplaces, as well as infiltration into formal retail environments. Enforcement actions have identified significant volumes of counterfeit branded toys entering the market, often closely resembling legitimate products while failing to meet safety and regulatory standards.

South Africa’s exposure is exacerbated by several structural factors, including high import dependence, a large and accessible informal retail sector, high levels of consumer price sensitivity, and constrained enforcement capacity. In addition, the country’s role as a regional trade and distribution hub increases the volume of goods – including counterfeit products – entering and moving through domestic markets. The convergence of these factors makes South Africa particularly vulnerable to illicit penetration in this category.

Why this matters

The toys and games sector occupies a unique position within the illicit economy. It combines high-volume consumer demand with direct exposure to vulnerable end users – children – thereby amplifying both market scale and societal risk. Illicit trade in this sector is therefore not solely a commercial or fiscal concern, but also a public health and safety issue, as well as a component of broader organised criminal activity.

Addressing illicit trade in toys and games requires coordinated action across enforcement agencies, regulators, industry stakeholders and digital platforms, supported by improved consumer awareness and more effective monitoring of evolving distribution channels.

STRUCTURE AND DRIVERS OF ILLICIT TOYS AND GAMES TRADE IN SA

Forms of illicit toys and games trade in South Africa: ranked assessment

Illicit trade in toys and games in SA spans import, distribution and retail channels. A defining feature of the sector is that counterfeit products are sold openly alongside legitimate goods – across formal retail, online platforms and social media – making it difficult for consumers to distinguish authentic from fake products and creating direct competitive pressure on authorised retailers.

RANK	FORMS	SIGNIFICANCE	EVIDENCE AND INDICATORS
1=	**Counterfeiting / fake branded products**	**Highest – co-primary channel**	Counterfeit toys are among the most prevalent forms of illicit trade, driven by strong brand recognition, seasonal demand and ease of replication. SATAGA has identified a growing presence, including fake Disney products (e.g. R2.6m seized in a 2025 raid), plush toys, trading cards and board games. Globally, toys are the second-most-counterfeited category. Counterfeit goods are sold openly in formal retail and online channels alongside legitimate products – limiting channel-based enforcement and creating direct price competition.
1=	**Unlawful imports (misdeclaration of tariff heading, customs value or quantity)**	**Highest – co-primary channel**	Unlawful imports account for up to 80% of illicit trade. Given South Africa's high import dependence (primarily on China), import-level evasion is a structural risk. Misdeclaration reduces duty and VAT and often obscures the presence of counterfeit goods at the point of entry. Counterfeiting and unlawful imports are frequently the same activity viewed through different regulatory lenses.
3	**Smuggling (fully undeclared imports)**	**Moderate**	Occurs through porous borders and shipping routes, often using split shipments to evade detection. Operation LUDUS confirms that exporters routinely split large consignments into smaller shipments, with customs officers identifying only a fraction of the illegal packages in each container. Fully undeclared flows do not appear in customs data. Some shipments have concealed drugs, indicating links to organised crime.
4	**Physical, informal and unregulated distribution**	**Moderate – major enabling channel**	Street vendors, informal markets and intersection trading provide accessible, low-visibility distribution channels. Fragmented sourcing and limited enforcement make these a key domestic route to consumers.
5	**Online and digital distribution channels**	**Moderate and growing**	E-commerce, social media and small-parcel delivery networks have lowered entry barriers and enabled direct-to-consumer sales. Operation LUDUS confirms social commerce is now a primary channel for counterfeit toy distribution, with AI-driven marketing and digital label forgery undermining product traceability. Small-parcel volumes make border detection increasingly difficult.
6	**Sale of non-compliant products**	**Lower – but disproportionately high risk**	Includes toys failing mandatory safety standards (labelling, warnings, safety instructions, chemical composition) without necessarily being counterfeit. The vast majority of seized toys present health hazards, including choking risks, toxic substances, electrical dangers and hearing damage – making this a lower-ranked but disproportionately serious risk given the vulnerability of child end users.
7	**Unlicensed or non-compliant local production**	**Low**	Small-scale unregistered domestic production outside the formal framework. Likely limited by capital intensity, but informal assembly and repackaging cannot be ruled out.

Note: This ranking is indicative rather than definitive, reflecting an analytical assessment based on SATAGA industry evidence, SAPS enforcement reports, and Operation LUDUS findings.

Illicit trade in toys and games is co-led by counterfeiting and unlawful imports – structurally interlinked forms that together account for the largest share of illicit activity by value – distributed across a uniquely broad range of channels from informal markets to mainstream formal retail.

Key Illicit Consumer Behaviour and Demand-Side Drivers

DRIVER	DESCRIPTION	IMPACT
Price and affordability pressure	Counterfeit and illicitly imported toys are typically significantly cheaper than legitimate products, enabling consumers to access branded or popular toys at a fraction of the authentic retail price. In a market characterised by high unemployment and persistent cost-of-living pressures, price is the dominant purchase driver – particularly for high-demand, high-value toys such as branded action figures, trading cards and viral collectables like Labubu plushies. The price differential is enabled by illicit supply chains that avoid customs duties, VAT, safety testing costs and regulatory compliance, allowing illicit operators to undercut legitimate retailers on a landed-cost basis.	**Highest**
High availability through formal, informal and online channels	Unlike most other illicit consumer goods categories, counterfeit toys are distributed not only through informal markets, street vendors and unverified online sellers, but also openly in mainstream shopping centres and on major e-commerce and social media platforms. This eliminates the traditional access barrier associated with illicit goods – consumers do not need to seek out informal channels to encounter counterfeit toys. High availability across all retail environments significantly reduces friction for consumers and normalises the purchase of non-compliant product as part of routine shopping behaviour.	**Highest**
Aspirational consumption and brand-driven demand	Toys and games are uniquely brand-intensive consumer products. Children are strongly influenced by specific brands, characters and licensed intellectual property – driven by television, film, social media and peer behaviour – creating concentrated demand for particular branded products. Counterfeit goods provide a low-cost pathway to access these brands, particularly where authentic products are priced out of reach for lower-income households. The strength of brand aspiration in this category – among both children and adult collectors – makes it a structurally attractive target for counterfeiters who free ride on the brand equity built by legitimate manufacturers.	**High**
Seasonal demand concentration	The toys and games sector is characterised by extreme seasonal demand concentration, with the majority of purchases occurring in a short festive window. This creates acute price pressure on parents and gift buyers seeking popular products, increasing their willingness to accept lower-cost alternatives with uncertain provenance. Seasonal scarcity of specific products – particularly high-demand licensed or viral toys – further increases vulnerability to counterfeit substitution, as consumers prioritise availability over authenticity verification.	**High**
Low perceived risk and limited consumer awareness of health dangers	Purchasing a counterfeit toy carries minimal perceived legal or reputational risk for consumers. Counterfeit toys are widely normalised across consumer segments and are sold openly in trusted retail environments, reducing consumer vigilance. The widespread visibility of counterfeit toys in mainstream retail environments normalises illicit consumption and reduces behavioural resistance. Critically, most consumers are unaware of the serious health and safety risks posed by non-compliant toys – including toxic substances, choking hazards, electrical hazards and hearing damage – because counterfeit products closely resemble legitimate goods. SATAGA has highlighted that health and safety protocols for toys and games in South Africa are insufficiently enforced, resulting in limited official warnings about the risks posed by non-compliant products.	**High**
Consumer inability to distinguish authentic from counterfeit product	Advances in packaging replication and product appearance make it increasingly difficult to distinguish counterfeit toys from genuine products, particularly at the point of purchase. This is exacerbated in the toys sector by the fact that the purchasing decision is typically made by an adult – the parent or gift-buyer – while the end user is the child, who may be better placed to identify inauthenticity but has no role in the purchase decision. Consumer confusion is further deepened by the open sale of counterfeit goods in mainstream retail environments alongside genuine product, where channel selection provides no reliable signal of authenticity.	**High**
Limited awareness of broader economic and social harms	Many consumers are unaware that the counterfeit toy trade undermines legitimate manufacturers and authorised retailers, reduces tax revenue, funds organised criminal networks – including syndicates involved in drug trafficking, human trafficking and arms smuggling – and directly endangers children through non-compliant products. This does not directly drive demand but substantially reduces resistance to purchasing illicit goods and weakens the social stigma that might otherwise deter purchase.	**Moderate–High**

Supply Side Enablers of Illicit Toys and Games Trade

Supply-side enablers are organised into three tiers. Tier 1 covers primary structural drivers across three themes: import and entry vulnerabilities, enforcement failure, and market structure. Tiers 2 and 3 are compounding factors that amplify Tier 1 conditions. Together, they create a high-return, low-risk operating environment for illicit suppliers.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Tier 1 – Highest Impact Drivers	
High import dependence and duty/VAT evasion incentives The overwhelming majority of toys sold in South Africa are imported, primarily from China. Import duties and VAT on compliant toy imports create strong incentives for customs misdeclaration, undervaluation and tariff fraud. Avoiding these charges enables illicit operators to structurally undercut authorised importers on landed cost while preserving margins – a decisive commercial advantage in a price-sensitive, high-volume consumer category.	**Absence of mandatory health and safety checks at ports of entry** South Africa does not apply robust mandatory health and safety screening to imported toys at the point of entry. SATAGA identifies this as the most significant structural gap in the enforcement framework. Port-level safety enforcement would allow non-compliant products to be intercepted under safety regulations – a more cost-effective first line of defence than civil or criminal IP proceedings. Given that children are the primary end users, the absence of systematic import-level safety verification represents both a fiscal and a public health failure.
Low expected cost of enforcement non-compliance Limited prosecutions, weak penalties and slow enforcement follow-through reduce deterrence. SATAGA survey evidence identifies weak enforcement of existing laws, ineffective licensing and corruption as primary factors worsening illicit trade. Where counterfeit goods are sold openly without consequence, the commercial risk of illicit trade remains low relative to its returns.	**High legal costs and slow IP enforcement** Formal search and seizure operations require specialist IP attorneys, and matters drag on unnecessarily, placing disproportionate cost burdens on brand owners. Cost-effective alternatives – voluntary surrenders and admission-of-guilt fines – are legally sound but are frequently vetoed by law enforcement or prosecutors lacking specialist IP knowledge. This deters brand owners from taking enforcement action essential to disrupting illicit supply chains. A lack of trained law enforcement, customs officials and judges with specialist IP knowledge results in matters being handled incorrectly, contributing to unsuccessful prosecutions and further increasing costs for brand owners.
Open sale in mainstream retail reduces enforcement visibility and risk Counterfeit toys are sold openly in formal shopping centres, on online platforms and on social media alongside legitimate product, eliminating the channel-based enforcement signals that authorities typically rely on and normalising illicit trade at scale.	**Corruption and collusion at ports and border posts** Corruption within customs clearance and border processes enables smuggling, undervaluation and selective enforcement failure. SATAGA survey evidence explicitly identifies corruption as a factor worsening illicit trade, consistent with broader findings across illicit trade categories in South Africa.
Tier 2 – Structural & Systemic Drivers	
Organised criminal supply chains The illicit toy trade is supported by organised networks with sophisticated sourcing, logistics and distribution capabilities. Proceeds fund broader criminal activity, including drug trafficking, human trafficking and arms smuggling, making toy counterfeiting a component of a wider criminal ecosystem.	**Fragmented enforcement and weak inter-agency coordination** Mandates are split across SARS, SAPS, the Border Management Authority, municipalities and consumer protection authorities, limiting coordination, intelligence sharing and consistent enforcement across the supply chain.
Large, informal, digital and social media distribution networks Informal traders, street vendors, unverified online marketplaces and social media platforms enable counterfeit toys to reach consumers rapidly and at scale. AI-driven marketing and digital label forgery further undermine traceability, while small-parcel delivery networks increase the number of entry and distribution points.	**Weak importer traceability and shell-company churn** Illicit operators use short-lived entities, proxy importers, and frequently changing importer-of-record structures to evade repeat enforcement, complicating post-clearance audits and allowing networks to continue operating despite periodic seizures.

INDUSTRY DYNAMICS & OPERATING ENVIRONMENT	INSTITUTIONAL & REGULATORY ENABLERS
Seasonal demand concentration enabling supply-side surge Predictable festive season demand peaks allow illicit supply chains to operate at scale during periods when enforcement capacity is stretched relative to throughput.	**Limited testing and laboratory capacity** Detection of non-compliant toys containing toxic substances or failing mechanical safety standards requires laboratory testing that is limited in availability and costly, constraining both detection and prosecution.
Tier 3 – Market-Level & External Factors	
China-dominated supply chain – scale advantage for counterfeiters Counterfeit producers access the same manufacturing infrastructure, materials and logistics networks as legitimate producers, but at materially lower cost by bypassing safety testing, IP licensing and regulatory compliance. This structural cost advantage enables counterfeit toys to be produced at scale and priced to undercut compliant product at every market tier.	**Absence of effective licensing and permit systems** Ineffective licensing allows unverified importers and distributors to operate within formal commercial channels without adequate scrutiny of product compliance or sourcing legitimacy, as identified in the SATAGA industry survey.
South Africa's role as a regional trade hub Large container and cargo volumes through Durban and Cape Town increase the operational challenge of detecting illicit consignments, given limited inspection resources relative to throughput.	**Porous land borders and weak regional coordination** Enable smuggling and split-shipment strategies. Operation LUDUS confirms that exporters routinely split large shipments into smaller consignments, with customs officers identifying only a fraction of the illegal packages in each container.

Sources: SATAGA industry survey conducted by Econometrix; Europol Operation LUDUS reports 2020–2025; OECD/EUIPO; own analysis.

The Illicit Toys and Games Supply Chain | Five-stage Flow

1 ORIGIN

Global Production — OUTSIDE SARS JURISDICTION — NOT ACTIONABLE AT SOURCE

KEY PRODUCERS

China · Hong Kong · Vietnam · Other Asian hubs

Illicit toys are sourced mainly from low-cost export hubs, with China the dominant origin. Goods include counterfeit, non-compliant and grey-market products. Upstream documentation enables undervaluation and concealment of origin. Counterfeiters leverage the same supply chains as legitimate producers but avoid compliance costs.

ENFORCEMENT LEVER

International customs cooperation, WCO intelligence-sharing, brand-owner engagement and IP enforcement in source jurisdictions. China's dominance makes bilateral cooperation a key — though constrained — enforcement lever.

2 TRANSIT

Transshipment Hubs & Trade Concealment — TIER 1 CUSTOMS EVASION MECHANISM

KEY HUBS

Dubai · Hong Kong · Singapore · Turkey

Consignments are routed through third-country hubs where goods are re-invoiced, re-labelled, consolidated or split before shipment to SA, obscuring origin and enabling customs fraud. Operation LUDUS identifies similar transit patterns in Europe, likely reflected in South African-bound flows. Toy shipments have also been used to conceal other illicit goods, indicating organised criminal involvement.

ENFORCEMENT IMPLICATION

Breaks the bilateral audit trail. Requires improved transit-country intelligence sharing, trade data analytics, and customs cooperation with key intermediary jurisdictions.

3 BORDER ENTRY ★

Border Entry & Customs Clearance — ★ PRIMARY SARS INTERVENTION POINT

KEY ENTRY POINTS

Durban · Cape Town · OR Tambo · Beitbridge · Lebombo

Illicit toys enter through ports, airports and land borders via customs misdeclaration (undervaluation, incorrect quantities, tariff misclassification and incomplete disclosure), often via intermediaries. Shipments are routinely split to evade detection, with only a fraction identified per container (Operation LUDUS). Critically, robust mandatory safety screening at ports is not consistently applied — a key enforcement gap identified by SATAGA, as such checks would provide a cost-effective first line of defence.

ENFORCEMENT IMPLICATION

The **highest-leverage intervention point** for both fiscal evasion and product safety non-compliance. Introduction of mandatory toy safety screening at ports of entry — alongside customs risk profiling and post-clearance audits — would materially improve detection rates and reduce the enforcement burden on brand owners.

4 WHOLESALE / DISTRIBUTION

Post-Border Wholesale & Distribution — POST-BORDER INTERVENTION POINT

Counterfeit and non-compliant toys move through informal wholesalers, unverified distributors and low-visibility warehouse networks before reaching retail. Unlike most sectors where this layer is largely informal, toys are distinctive in that counterfeit goods also enter formal wholesale and distribution networks — including those supplying mainstream shopping centres — making this layer difficult to monitor and disrupt.

ENFORCEMENT IMPLICATION

Requires post-clearance audits, market intelligence and wholesaler-level oversight rather than border controls alone. Coordination between SARS, BMA, SAPS and consumer protection authorities is essential at this stage.

5 RETAIL / CONSUMER ACCESS

Domestic Retail & Digital Sales Channels — CONSUMER / MARKET INTERVENTION POINT

Channel 1: Physical informal retail

Wholesalers → street vendors / informal markets / intersection traders → Consumer

- Traditional high-volume channel. Disruption at the wholesale level affects downstream supply.

Channel 2: Mainstream formal retail

Importers / distributors → mainstream shopping centres / authorised-looking retail → Consumer

- Sector-specific risk. Counterfeit toys are sold openly alongside legitimate product in formal retail, creating consumer confusion and direct competitive harm to authorised retailers.

Channel 3: Digital and social commerce

Distributors / sellers → e-commerce platforms / social media → Consumer

- Rapidly growing. AI-driven marketing and digital label forgery undermine traceability. Limited platform oversight and low barriers to entry.

Channel 4: Direct-to-consumer

Manufacturer / distributor → courier / small parcel → Consumer

- Fast-growing model using small-parcel delivery, bypassing traditional retail structures. Highlights the need for improved parcel intelligence and review of de minimis thresholds.

ENFORCEMENT IMPLICATION

Retail channels are uniquely fragmented, spanning informal markets, mainstream shopping centres, major online platforms and social media. Effective disruption requires cross-channel surveillance, digital monitoring, parcel intelligence and targeted enforcement against repeat sellers. The open sale of counterfeit toys in formal retail environments requires engagement with shopping centre management and formal retailers as enforcement partners, in addition to traditional informal market surveillance.

Sources: SATAGA industry survey by Econometrix; Europol Operation LUDUS reports; OECD/EUIPO; WCO; own analysis.

SCALE OF ILLICIT TOYS & GAMES TRADE IN SA – PENETRATION RATE

Methodological approach

Direct measurement of illicit trade is inherently difficult because the activity is designed to evade detection. The standard approach – used by organisations such as the OECD, UNODC and the World Customs Organisation, and consistent with trade-based methodologies applied by Global Financial Integrity – is therefore to triangulate across multiple independent indicators, each capturing a different dimension of illicit activity.

This analysis estimates the illicit trade penetration rate in South Africa's toys and games sector using four complementary methods:

METHOD	WHAT IT MEASURES	DATA SOURCE	PURPOSE
1. Mirror trade analysis	Import misdeclaration, undervaluation and under-recorded imports across relevant HS codes	ITC TradeMap / UN Comtrade	Primary quantitative indicator of illicit market entry via import misdeclaration and undervaluation
2. Supply-Use Table benchmark	Non-observed domestic market activity in product category P56 (musical instruments, sports goods, games and toys)	Stats SA Supply-Use Tables	Domestic cross-check of non-observed production and consumption activity, adjusted for the broad scope of P56 and the significant legitimate informal component in this category
3. Industry survey evidence	Direct sector estimates of illicit penetration by value and volume	SATAGA industry survey conducted by Econometrix	Primary sector-based estimate providing year-on-year trend evidence on penetration rates from the industry body best positioned to observe market conditions
4. International benchmarking	Plausible penetration ranges observed in comparable markets	OECD/EUIPO trade-based estimates; Europol Operation LUDUS	Plausibility check and lower-bound reference against comparable toy markets internationally

Mirror trade analysis and the SUT benchmark are primarily used to assess illicit market entry and domestic non-observed supply, respectively, while the SATAGA industry survey provides direct market-facing evidence on penetration trends. Together, these methods distinguish between illicit market entry – reflected in trade and customs indicators – and domestic market penetration, reflected in non-observed activity captured in the SUTs and confirmed by industry observation.

The toys and games sector has one important methodological characteristic that distinguishes it from most other sectors in this report: the availability of direct industry penetration estimates from SATAGA, covering three consecutive years (2022–2024) and distinguishing between value and volume penetration. This adds a dimension of direct market evidence not available in most other sectors and is treated as a primary input in the triangulation rather than a secondary corroborating signal.

The final penetration range is derived from the convergence across all four methods and should be interpreted as a directional, evidence-based estimate of the illicit toys and games trade in South Africa.

Estimating the Size of the Toys and Games Market

The South African toy market is estimated at approximately **R8.7 billion** in 2024, based on specialist market research from IMARC Group.[56]

This is closely aligned with a Stats SA Supply-Use Table-derived estimate of approximately R8.3 billion for the toys and games component of product category P56 – Musical instruments, sports goods, games and toys – derived by applying an indicative 30% allocation to P56 average household consumption of R27.8 billion.

This allocation reflects an informed estimate of the relative consumer weight of toys and games within a category that also includes musical instruments, sports equipment and other recreational articles, and is used as a reasonable central assumption.

The close alignment between the IMARC and SUT-derived figures – R8.7 billion versus R8.3 billion, respectively – provides indirect validation of this approach and supports using R8.7 billion as the primary market-size denominator for penetration rate calculations in this section.

Method 1: Mirror Trade Analysis[57]

Conceptual Basis

Mirror trade analysis compares reported exports with recorded imports to identify potential discrepancies arising from undervaluation, misdeclaration or undeclared trade. Where a partner country reports exporting more to South Africa than South Africa records importing, the resulting gap may indicate under-recording of imports, misdeclaration or other irregularities at the border. The results should be interpreted as an indicator of possible import irregularities rather than a direct measure of illicit trade, particularly in sectors characterised by re-export routing and complex supply chains. While international conventions typically compare free-on-board (FOB) exports with cost, insurance and freight (CIF) imports, South Africa reports both imports and exports on an FOB basis (UNSD, Question 7.04 - see footnote). This removes the standard valuation-driven gap, meaning mirror discrepancies cannot be attributed to freight and insurance costs and are less likely to reflect valuation differences and therefore more informative of underlying trade frictions or potential misreporting.[58]

HS code Coverage and China–South Africa Toys & Games Trade Corridor

Two HS codes were selected for mirror trade analysis, covering the core toys and games import categories most directly relevant to South Africa's illicit trade exposure. The analysis focuses on the China–South Africa trade corridor, which accounts for the largest share by far of South Africa's toy imports and the primary origin country for counterfeit toys globally.

HS 9503 – Tricycles, scooters, pedal cars, dolls, toys, puzzles and scale models – is the primary heading, covering the full range of physical toys that constitute the core counterfeit toy market. China accounts for an average of 75% of

[56] *The business of balancing trends and needs in SA's lucrative toy market this festive season; https://www.imarcgroup.com/south-africa-toys-market*

[57] *The use of mirror trade statistics to identify trade misinvoicing and customs fraud has a long analytical history in international trade research, dating back to early studies by Bhagwati (1964) and Morgenstern (1974), and has subsequently been applied in empirical work by organisations such as UNCTAD, the OECD, Global Financial Integrity and the World Customs Organisation.*

[58] *South Africa reports the statistical value of both imports and exports on a free-on-board (FOB) basis, as confirmed by South Africa's official declaration to the UN Statistics Division (UNSD International Merchandise Trade Statistics National Compilation and Reporting Practices, Question 7.04). This places South Africa among a minority of countries(28% globally) that record imports on an FOB rather than CIF basis. Partner-country exports to South Africa are also reported FOB under standard international trade conventions. The mirror trade analysis therefore compares FOB export values directly with FOB import values. No CIF valuation adjustment is applied, as none is required. Where bilateral gaps are positive, this produces more conservative estimates than analyses conducted on a CIF-adjusted basis, and avoids the assumption risk associated with the standard 10% uplift applied in studies where import values are reported CIF.*

South Africa's HS 9503 imports over 2019–2025, confirming its dominance as both the legitimate and illicit source for this category.

HS 9504 – Video game consoles, table and parlour games, billiards and amusement machines – is the secondary heading, relevant primarily for board games and trading cards, both of which SATAGA identifies as significant counterfeit targets. China accounts for an average of 55% of South Africa's HS 9504 imports over 2019–2025. As noted below, the mirror trade results for this heading require careful interpretation, given the re-export routing characteristics of video game console supply chains.

Table 83: China's share of South Africa's Toys & Games imports by HS code, 2019–2025 average

HS CODE	PRODUCT	CHINA'S SHARE OF SA IMPORTS (2019-2025)
9503	Tricycles, scooters, dolls, toys, puzzles	75%
9504	Video game consoles, table/parlour games	55%
Trade-weighted average	Both categories combined	~68%

Source: ITC TradeMap, UN Comtrade

China accounts for approximately 68% of South Africa's combined HS 9503 and 9504 imports on a trade-weighted basis over 2019–2025, confirming that the mirror trade analysis captures the dominant supply corridor for toys and games entering the South African market.

Mirror trade results

HS Code Selection and Corridor Rationale

Mirror trade analysis is conducted for HS 9503 only as the primary corridor.

HS 9504 was assessed but excluded from the quantitative analysis because of the large negative gap observed – South Africa recording substantially more imports from China than China records as exports – reflects the structure of legitimate video game console distribution through regional intermediary hubs (Singapore, Hong Kong, Dubai) rather than illicit trade dynamics. Including HS 9504 would introduce a structural re-export artefact that cannot be separated from genuine misdeclaration signals, making the results unreliable. Board games and trading cards – the genuinely counterfeit-exposed components of HS 9504 – represent a relatively small share of the heading's total value, which is dominated by video game hardware.

HS 9503 – covering tricycles, scooters, dolls, toys, puzzles and scale models – is the primary counterfeit toy heading, directly corresponding to the product categories identified by SATAGA and Operation LUDUS as the core targets of counterfeit toy trade. China accounts for an average of 75% of South Africa's HS 9503 imports over 2019–2025, making it the dominant and analytically appropriate single corridor for this analysis.

Table 84: China–South Africa Toys and Games Trade: Mirror Analysis and Import Discrepancies (HS 9503, Annual, 2019-2025)

	CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP (EXPORTS MINUS IMPORTS)	GAP (RAND)	GAP AS % EXPORTS
2019	$131.5m	$126.6m	$4.9m	R70.9m	4%
2020	$137.2m	$77.2m	$59.9m	R986.4m	44%
2021	$262.6m	$123.0m	$139.6m	R2.1bn	53%

	CHINA'S EXPORTS TO SA (FOB)	SA'S IMPORTS FROM CHINA (FOB)	GAP (EXPORTS MINUS IMPORTS)	GAP (RAND)	GAP AS % EXPORTS
2022	$281.4m	$122.1m	$159.3m	R2.6bn	57%
2023	$172.0m	$92.0m	$79.9m	R1.5bn	46%
2024	$151.1m	$100.9m	$50.1m	R919.0m	33%
2025	$134.3m	$113.8m	$20.5m	R367.3m	15%
Avg 2019–2025	$181.4m	$108.0m	$73.5m	R1.2bn	36%

Source: ITC TradeMap, Comtrade.

HS 9503 exhibits a consistent and large positive export-import gap – China records higher export values than South Africa records as imports – across all seven years of the analysis period. The average annual gap of R1.2 billion represents a 36% discrepancy with China's recorded exports to South Africa under this heading, indicating a structural pattern rather than statistical noise.

The gap peaked dramatically in 2021 and 2022 – reaching R2.1 billion and R2.6 billion, respectively – coinciding with the reopening of the post-COVID supply chain and the period in which SATAGA first began formally tracking illicit penetration. The subsequent narrowing from 2022 to 2025 may reflect improved SARS risk profiling, supply chain normalisation, or a partial shift in illicit toy distribution toward domestic and online channels not captured in bilateral import data. The 2025 figure of R367 million may also be subject to upward revision as late declarations are processed.

Since the analysis covers only the China corridor, total misdeclaration across all source countries is likely understated. China accounts for 75% of South Africa's HS 9503 imports – a higher share than in most other sectors analysed in this report – meaning the single-corridor estimate captures a larger proportion of total import flows than is typically the case. Nonetheless, the results should be interpreted as a lower-bound indicator of potential import irregularities.

Noise Discount and Corridor Adjustment Framework

Several structural factors can generate bilateral trade gaps independently of illicit activity:

Table 85: Potential non-fraud contributors to bilateral trade gaps - China–SA Toys & Games corridor

FACTOR	LIKELY EFFECT ON GAP	ASSESSMENT FOR THIS ANALYSIS
Re-export via third countries (Dubai, Hong Kong, Singapore)	Reduces apparent SA imports from China	Moderate – toy supply chains often utilise regional distribution and consolidation hubs before shipment to South Africa. Some share of the observed gap may therefore reflect re-routed trade rather than directly shipped product.
Trade recording timing differences	Minor bilateral misalignment	Small effect – unlikely to explain a persistent multi-year gap.
Classification and reporting differences	Minor HS-level discrepancies	Limited – HS 9503 is a relatively specific product category with less scope for classification ambiguity than broader product groupings.
Informal and undeclared trade not captured	Reduces SA recorded imports	Relevant – informal cross-border toy imports and small-parcel flows are structurally undercounted in Comtrade, meaning SA's recorded imports are likely understated. This works in the opposite direction to the gap – if anything, it means the true gap is larger than recorded
Split shipment strategies	Reduces detection per container	Directly relevant – Operation LUDUS confirms exporters routinely split large shipments to evade detection, reducing per-container detection rates

These factors require downward adjustment before the gap can serve as an indicator of illicit trade. International studies by the OECD and Global Financial Integrity typically apply noise discounts of 30%–60%.

For the toys and games sector, a discount of 30%–40% is considered appropriate – at the lower end of the internationally applied range – for two reasons.

- First, HS 9503 is a relatively specific and unambiguous heading, reducing the classification noise that typically inflates gaps in broader, more heterogeneous product categories.
- Second, the direction of informal trade in toys is more likely to understate South African recorded imports – as counterfeit goods enter through undeclared channels that do not appear in bilateral import statistics – than to create spurious upward noise in the gap.

This means the observed gap is more likely to be a conservative understatement of the true misdeclaration than an overstatement, making a lower-noise discount more defensible. A 35% discount is treated as the central estimate.

Two estimation panels are used. Panel A reflects the observed China corridor gap only and represents a conservative floor. Panel B extrapolates the China corridor misdeclaration rate across all import corridors by dividing the observed gap by China's 75% trade-weighted share of HS 9503 imports, yielding an implied all-corridor gap. Given China's very high share of HS 9503 imports, extrapolating from China to all corridors entails a smaller upward adjustment than in most other sectors.

Table 86: Mirror-Trade Matrix – HS9503; Average Annual, 2019–2025

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE (HS9503)	MARKET DENOMINATOR†	ILLICIT PENETRATION RATE
PANEL A: CHINA CORRIDOR ONLY					
Raw gap	R1,2bn	None	R1,2bn	R8,7bn	13.9%
30% noise discount	R1,2bn	−30%	R848m	R8,7bn	9.7%
35% noise discount	R1,2bn	−35%	R788m	R8,7bn	9.1%
40% noise discount	R1,2bn	−40%	R727m	R8,7bn	8.4%
PANEL B: ALL CORRIDOR EXTRAPOLATION (CHINA = 75% OF SA'S HS9503 IMPORTS)‡					
Raw gap	R1,6bn	None	R1,6bn	R8,7bn	18.6%
30% noise discount	R1,6bn	−30%	R1,11bn	R8,7bn	13.0%
35% noise discount	R1,6bn	−35%	R1,05bn	R8,7bn	12.1%
40% noise discount	R1,6bn	−40%	R970m	R8,7bn	11.1%

† *Market denominator = IMARC Group South Africa toy market estimate, 2024 (R8.7bn).*

‡ *All-corridor gap derived by dividing the China corridor gap (R1.2bn) by China's 75% trade-weighted share of total recorded SA HS 9503 imports. Assumes the misdeclaration rate observed on the China corridor is broadly representative of other corridors.*

The mirror trade methodology implies that illicit toy imports account for approximately 11%–13% of the South African toy market (R970m–R1,1bn per year) under the preferred 35%–40% noise discount range applied to the all-corridor estimate. Panel A (China corridor only) implies a conservative floor of 8%–10% (R727m–R848m), reinforcing that the full market impact is likely closer to the all-corridor estimate.

The scale and consistency of the positive gap across all seven years of the analysis period – with China recording, on average, 40% more in exports than South Africa records as imports – is consistent with structural underrecording at the South African import stage rather than random statistical variation.

This is further supported by the 2021–2022 peak coinciding with documented post-COVID surges in counterfeit toy availability, and by the SATAGA industry evidence identifying unlawful imports as a primary form of illicit trade.

Method 2: Supply-Use Table Benchmark

Stats SA's Supply-Use Tables (SUTs) provide a macroeconomic accounting framework that reconciles the total supply and use of goods and services in the South African economy. Unlike trade or survey data, SUTs explicitly account for non-observed economic activity – including informal, unrecorded and potentially illicit production and consumption – making them a useful cross-check for sectors where illicit activity is suspected but difficult to measure directly.

The relevant SUT product code is P56 – Musical instruments, sports goods, games and toys, swings, other manufactured articles n.e.c. – which covers the toys and games product universe alongside related recreational goods. The supply table records a non-observed economy (NOE) supply figure representing output entering the market through informal, unregistered or illicit channels.

Interpreting the NOE supply figure

The NOE supply captures a mix of activity that is not uniformly illicit. For P56 specifically, the composition is materially different from sectors where legitimate informal production is negligible:

Component	Illicit?	Assessment for P56 Toys and Games
Counterfeit branded toys and games	Illicit	Core illicit category – directly supported by SATAGA evidence and Operation LUDUS findings
Smuggled or misdeclared imports re-entering the domestic supply	Illicit	Significant – consistent with mirror trade findings for HS 9503
Undeclared output from registered producers	Illicit	Present but limited, given the capital intensity of formal toy manufacturing
Unregistered informal producers – craft toy makers, informal sports goods traders, small-scale hobby producers	Not illicit	Meaningful legitimate component – must be stripped out before NOE supply can be used as an illicit penetration indicator

The P56 NOE supply includes a meaningful, legitimate informal component – craft toy makers, informal sports goods traders and small-scale hobby producers – that must be stripped out before the figure can be used as an illicit penetration indicator.

Adjusting for Legitimate Informal Production and Scope

Two adjustments are applied sequentially:

Adjustment 1 – Scope: isolate toys and games from P56

P56 encompasses musical instruments, sports equipment, swings and other manufactured articles in addition to toys and games. Based on an informed allocation of the relative consumer market weight of toys and games within P56 – cross-validated against the IMARC market size estimate of R8.7 billion – a **30%** allocation is applied to isolate the toys and games component of P56 NOE supply and household consumption.

Adjustment 2 – Illicit vs informal: strip out legitimate informal production

Within the toys and games sub-component, a further adjustment separates the illicit and unrecorded component from legitimate informal production.

Given that toys and games have a higher counterfeit intensity than musical instruments or sports goods within P56 – directly supported by SATAGA evidence – a higher illicit share is applied to the toys sub-component than would be appropriate for P56 as a whole. A 30% allocation is used as the central estimate, with a sensitivity range of 25%-35%,

reflecting the meaningful, legitimate informal component alongside the well-documented and growing counterfeit presence as the dominant driver of NOE supply in this sub-category.

NOE Supply Findings

Applying the two-step adjustment to the P56 unadjusted figures yields the following results:

Table 87: Stats SA Supply-Use Table – P56, 2018–2022 (Unadjusted and Adjusted)

	2018	2019	2020	2021	2022	2018–2022 avg
Total supply at purchasers' prices	R58.9bn	R60.5bn	R56.4bn	R57.9bn	R74.2bn	R61.6bn
Total industry (intermediate) use	R26.1bn	R26.5bn	R27.1bn	R26.1bn	R40.8bn	R29.3bn
Exports	R3.9bn	R4.6bn	R3.6bn	R4.1bn	R4.6bn	R4.1bn
Household consumption (P56 total)	R29.1bn	R29.6bn	R25.8bn	R27.9bn	R26.7bn	R27.8bn
Household consumption (adjusted, toys share)	R8,7bn	R8,9bn	R7,7bn	R8,4bn	R8,0bn	R8,4bn
Non-observed use– unadjusted	R8.3bn	R8.4bn	R8.2bn	R8.6bn	R11.8bn	R9.1bn
Non-observed use – adjusted †	R0.7bn	R0.8bn	R0.7bn	R0.8bn	R1.1bn	R0.8bn
Non-observed supply – unadjusted	R20.3bn	R22.7bn	R20.9bn	R19.1bn	R22.4bn	R21.1bn
Non-observed supply – adjusted †	R1.8bn	R2.0bn	R1.9bn	R1.7bn	R2.0bn	**R1.9bn**
NOE supply / HH consumption – unadjusted	69.7%	76.6%	81.1%	68.3%	83.7%	75.9%
NOE supply / HH consumption – adjusted	21%	23%	24%	20%	25%	23%

Source: Stats SA Supply-Use Tables 2018–2022; own calculations.

† *Adjusted figures apply a combined two-step adjustment to isolate the toys and games illicit component from the broader P56 category: a 30% scope allocation to extract the toys and games sub-component from P56, followed by a 30% illicit adjustment to strip out legitimate informal production. The combined adjustment is 9% of the P56 NOE supply and NOE use. The toys household consumption denominator applies the same 30% scope allocation to P56 household consumption.*

The adjusted SUT estimate of 23% (central) of toys and games household consumption – equivalent to approximately R1.9 billion per year at 2018–2022 average prices – represents the domestic supply-side structural indicator of non-observed toy supply in South Africa over the SUT reference period.

A Further Structural Insight: The NOE Supply-Consumption Gap

The use table provides a complementary signal. After applying the same two-step adjustments, adjusted NOE use for the toys and games sub-component averages approximately R0.8 billion per year over 2018–2022 – materially lower than the adjusted NOE supply estimate of R1.9 billion over the same period.

The gap of approximately R1.1 billion per year between adjusted illicit supply and adjusted illicit use through informal channels implies that a substantial share of counterfeit and non-compliant toy product is not confined to identifiable informal retail markets.

It is instead circulating through formal and semi-formal distribution networks – directly consistent with SATAGA's observation that counterfeit toys are sold openly in mainstream shopping centres, on online platforms and social media alongside genuine product.

This corroborates the mirror trade finding that misdeclared toy imports circulate through mixed formal and informal channels rather than exclusively through identifiable grey markets.

Relationship Between SUT Estimate and SATAGA Industry Data

The SUT-derived estimate of 23% and the SATAGA 2022 value estimate of 5% appear to diverge materially. This reflects differences in both methodology and timing rather than a genuine contradiction.

The SUT measures non-observed supply across the full 2018–2022 period, including years predating SATAGA's formal penetration tracking, and applies scope and illicit adjustments that carry inherent uncertainty. The SATAGA 2022 figure of 5% represents the industry's earliest formal estimate and – given the documented trajectory to 25% by 2024 – is likely to have been conservative, reflecting the early stage of industry measurement rather than the true scale of illicit activity at that time.

The SUT estimate is therefore better understood as a structural indicator of the potential scale of non-observed toy supply over the 2018–2022 period rather than a direct point-in-time comparator to SATAGA's year-specific market observation. The two approaches are treated as complementary rather than competing – the SUT providing a supply-side structural upper bound and SATAGA providing the primary demand-side market estimate for the triangulated penetration range.

Notably, the SUT structural upper bound of 23% and the SATAGA 2024 value estimate of 25% converge closely – providing indirect cross-validation that the SATAGA trajectory toward 25% is consistent with the structural supply-side capacity for non-observed toy activity indicated by the national accounts data.

Convergence with Mirror Trade Results

The adjusted SUT central estimate of 23% sits materially above the mirror trade all-corridor central estimate of 12% (Panel B, 35% noise discount). The toys and games sector shows a larger gap between the import-channel estimate and the domestic supply-side estimate. This divergence is analytically coherent rather than contradictory – it reflects the structural characteristics of illicit toy trade documented throughout this section:

The mirror trade estimate captures only import-channel misdeclaration of formally recorded trade flows.

The SUT estimate captures total domestic non-observed supply, including counterfeit goods that entered through fully informal border channels, domestic assembly and repackaging operations, and online platforms not reflected in bilateral trade data.

SATAGA's observation that counterfeit toys are sold openly across all retail channels – including formal environments – indicates that a significant share of the illicit supply enters and circulates through channels invisible to bilateral trade monitoring.

The SUT estimate of 23% and the SATAGA 2024 industry estimate of 25% – derived entirely independently – converge closely, providing strong triangulation support for the domestic supply-side estimate. The mirror trade estimate of 12% represents the measurable import channel component of a larger total illicit market, consistent with the overall analytical framework established in this report.

Penetration Rate Matrix: Triangulated outcome

The methods applied in this analysis produce a wider range than most other sectors in this report, reflecting both the rapid deterioration in illicit penetration documented by SATAGA over 2022–2024 and the structural complexity of isolating toys and games from the broader P56 SUT category. The methods are nonetheless analytically coherent and tell a consistent directional story.

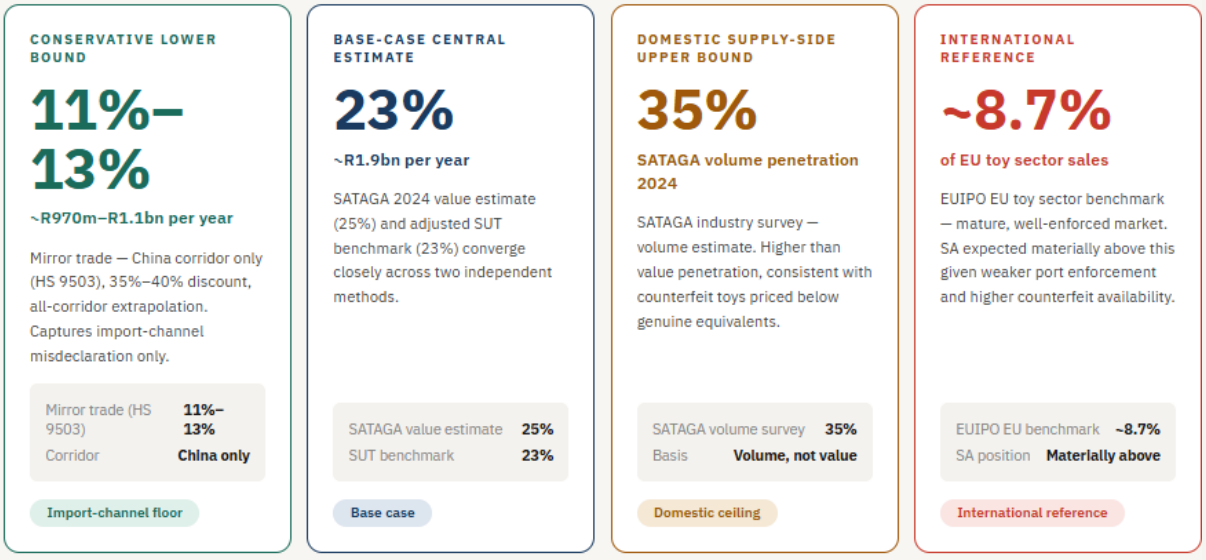
- The mirror trade analysis (China corridor, HS 9503) provides a conservative import-channel lower bound of 8%–10% on a single-corridor basis (Panel A, 35%–40% discount), rising to 11%–13% on an all-corridor extrapolated basis (Panel B, 35%–40% discount). The all-corridor estimate is used as the primary mirror trade signal given

China's 75% share of HS 9503 imports – a higher share than in most other sectors, meaning the single-to-all-corridor extrapolation involves a smaller upward adjustment.

- The SUT benchmark of 23% – derived from adjusted P56 NOE supply after applying a 30% scope allocation and 30% illicit adjustment – provides the domestic supply-side structural upper bound. The SUT covers the 2018–2022 period and should not be directly compared to SATAGA's year-specific estimates. It is better understood as a structural indicator of the potential scale of non-observed toy supply over the reference period rather than a point-in-time penetration rate.
- The SATAGA industry survey provides the primary direct-market estimate, covering three consecutive years and distinguishing value from volume penetration. The trajectory shows a significant increase in illicit penetration: 5% in 2022, 15% in 2023, and 25% in 2024. This rapid and well-documented rise is influenced by the expansion of social media commerce, the availability of counterfeit products, and a decline in enforcement visibility.

  The 2024 value estimate of 25% is used as the primary current reference.
- The EUIPO/OECD international benchmark[59] places the EU toy sector's losses to counterfeiting at approximately 8.7% of sector sales – providing a lower-bound international reference from a more regulated, better-enforced market environment. South Africa's estimated range is materially above this benchmark, consistent with weaker port-level safety enforcement, a larger informal retail sector, and greater availability of counterfeit goods across both formal and informal channels.

Triangulation estimate. The methods converge on a coherent analytical picture. The mirror trade all-corridor estimate (11%–13%) captures the measurable import-channel component and provides a conservative lower-bound estimate of illicit imports. The SATAGA industry survey demonstrates a rapid increase in illicit market penetration between 2022 and 2024, confirming that counterfeit trade has become substantially more entrenched in recent years. The SUT structural benchmark (23%) provides an independent supply-side estimate of the scale of non-observed activity and aligns closely with the industry's assessment of a materially expanded illicit market. For the purposes of economic impact modelling, the study adopts a conservative working estimate of R1.9 billion, equivalent to approximately 23% of the formal toys and games market. This estimate is anchored in the SUT structural benchmark, supported by the SATAGA industry evidence and corroborated by the mirror trade analysis, which captures the measurable import-channel floor within a broader illicit market.



[59] *EUIPO (2022), cited in Europol Operation LUDUS V Report (2025)*

Table 88: Triangulated Estimate of Illicit Toys and Games Trade Penetration – South Africa (Summary)

METHOD	GROSS GAP	ADJUSTMENT	ILLICIT ESTIMATE	MARKET DENOMINATOR	ILLICIT PENETRATION RATE
PANEL A – CHINA CORRIDOR ONLY (HS 9503) **Conservative import channel floor**					
Mirror trade – raw gap	R1,2bn	–	R1,2bn	R8,7bn†	13.9%
Mirror trade – 30% discount	R1,2bn	−30%	R848m	R8,7bn	9.7%
Mirror trade – 35% discount	R1,2bn	−35%	R788m	R8,7bn	9.1%
Mirror trade – 40% discount	R1,2bn	−40%	R727m	R8,7bn	8.4%
PANEL B – ALL CORRIDORS EXTRAPOLATED (CHINA= 75% OF HS9503 IMPORTS) Primary mirror trade estimate					
Raw gap	R1,6bn	None	R1,6bn	R8,7bn	18.6%
30% noise discount	R1,6bn	−30%	R1,11bn	R8,7bn	13.0%
35% noise discount	R1,6bn	−35%	R1,05bn	R8,7bn	12.1%
40% noise discount	R1,6bn	−40%	R970m	R8,7bn	11.1%
PANEL C – SUT BENCHMARKS (P56, TOYS COMPONENT) Domestic supply-side structural indicator					
P56 NOE supply – adjusted ★	R21,1bn	9% combined	R1,9bn	R8,4bn‡	23%
PANEL D – CORROBORATING BENCHMARKS Primary direct market estimate					
SATAGA value penetration – 2022	–	–	–	–	5%
SATAGA value penetration – 2023	–	–	–	–	15%
SATAGA value penetration – 2024 ★	–	–	–	–	25%
SATAGA volume penetration – 2022	–	–	–	–	20%
SATAGA volume penetration – 2023	–	–	–	–	30%
SATAGA volume penetration – 2024	–	–	–	–	35%
PANEL E – INTERNATIONAL REFERENCE Contextual reference only					
EUIPO EU counterfeiting estimate §	–	–	–	–	~8.7% of sales
SCENARIOS					
Conservative scenario **Sensitivity / all-corridor mirror-trade estimate**	–	–	~R970m–R1,1bn	R8,7bn	11%–13%
Base-case central working estimate / SATAGA value★	–	–	~R1.7bn–R2.2bn **R1.9bn**	R8,7bn	20%–25% **23%**
Upper-bound **Sensitivity / SATAGA volume**	–	–	–	–	~35%

★ *The base-case central estimate of 20%–25% is anchored in the SATAGA 2024 value penetration estimate of 25%, corroborated by the SUT structural upper bound of 23%. The mirror trade all-corridor estimate of 11%–13% represents the measurable import-channel component of a larger total illicit market. The value/volume gap in SATAGA estimates – 25% value versus 35% volume in 2024 – is analytically consistent with counterfeit toys being priced below genuine equivalents, meaning illicit goods account for a larger share of units sold than of rand value.*

For the purposes of economic impact quantification, a working estimate of approximately R1.9 billion has been adopted, representing the midpoint of the base-case central estimate range and consistent with the convergence between the SATAGA 2024 value estimate and the SUT structural upper bound.

† *Market denominator = IMARC Group South Africa toy market estimate, 2024 (R8.7bn).*

‡ *SUT denominator = average P56 household consumption 2018–2022 (R27.8bn unadjusted; R8.4bn after 30% toys scope allocation). NOE supply figures from Stats SA Supply-Use Tables 2018–2022; own calculations.*

§ *EUIPO (2022): EU toy sector loses approximately EUR 1 billion annually to counterfeiting, equivalent to 8.7% of total sector sales. Value-based measure from a more regulated enforcement environment; represents a lower-bound international reference for South Africa.*

Source: SATAGA industry survey conducted by Econometrix; ITC TradeMap; UN Comtrade; Stats SA Supply-Use Tables 2018–2022; EUIPO; IMARC Group; own calculations.

ECONOMIC IMPACT OF ILLICIT TOYS AND GAMES TRADE IN SOUTH AFRICA



The Toys and Games Industry's Value Chain and Economic Linkages

The toys and games industry is linked to several upstream and downstream industries in the South African economy.

- Upstream, the sector relies on plastics and polymers (the primary input for most toy manufacturing), metals, textiles and fabrics (for soft toys and dolls), electronics components (for electronic and battery-operated toys), paper and cardboard (for board games, puzzles and packaging), and printing and finishing services. Given that the overwhelming majority of toys sold in South Africa are imported – predominantly from China – the upstream linkages for the domestic formal manufacturing sector are limited, with the most significant upstream relationships occurring in packaging, distribution infrastructure and retail logistics rather than primary production.
- Downstream, toys and games products are distributed through formal retail (toy specialists, department stores, supermarkets), mainstream shopping centres, online and social media platforms, informal markets, street vendors and intersection traders. End-use sectors include households with children, schools and educational institutions, collectors and hobbyists, and the events and entertainment industry.

As a result, the domestic toys and games value chain is concentrated in the import, distribution and retail stages rather than in manufacturing – a structural characteristic that distinguishes it from most other consumer goods sectors in this report and that has direct implications for illicit trade risk, as the primary intervention points for enforcement are at the border and in distribution rather than at the production stage.

> The value chain is under increasing pressure from illicit trade. Unlike in manufacturing-intensive sectors where illicit trade primarily displaces domestic production, in toys and games, the primary impact falls on authorised importers and formal retailers who cannot compete on price with counterfeit alternatives that avoid import duties, safety testing costs and regulatory compliance.
>
> The concentration of the domestic value chain in import, distribution and retail – rather than manufacturing – means that the impacts of illicit trade fall primarily on formal retailers, authorised distributors and brand owners, rather than on domestic producers, with implications for the economic impact modelling set out below.

Economic Impact of Illicit Toys and Games Trade

The illicit toys and games trade imposes economic costs on South Africa's formal sector that extend well beyond the direct market displacement estimate. The base-case illicit market estimate of R1.9 billion per year (Table 6) represents expenditure on toys and games diverted from formal, legal supply channels – but it does not translate directly into an equivalent GDP loss. This distinction matters because South Africa's toys and games market is almost entirely import-dependent.

Virtually all formal toy sales involve imported products, which contribute to domestic value added only indirectly – through wholesale and retail trade margins, logistics, warehousing, marketing, and related business services rather than through local manufacturing. Unlike sectors where illicit trade displaces domestic production and associated manufacturing employment, in toys and games, the primary economic impact falls on the import, distribution and retail stages of the value chain.

The economic impact of the illicit toys and games trade operates through several interconnected channels:

- Lost revenue for legitimate brand owners, authorised importers, distributors and formal retailers – counterfeit toys priced below compliant alternatives directly displace sales from legitimate players who bear the full cost of import duties, safety testing, IP licensing and regulatory compliance.
- Lost retail, wholesale and distribution margins as authorised importers, distributors and formal retailers lose sales to counterfeit alternatives – the most direct and material channel given the value chain's retail-concentrated nature.
- Foregone tax revenue, including VAT, customs duties and corporate income tax on displaced formal sales, as well as lost revenue where non-compliant products avoid applicable import levies.
- Brand erosion and reputational damage to legitimate toy manufacturers and authorised distributors, as counterfeit goods sold in formal retail environments are associated with genuine brands by uninformed consumers.
- Increased compliance and enforcement costs borne disproportionately by brand owners, who carry the primary burden of IP enforcement through costly civil and criminal proceedings in the absence of effective port-level safety screening.
- Consumer welfare losses from exposure to non-compliant products that fail mandatory safety standards – including toxic substances, choking hazards and electrical dangers – impose health costs that fall outside the formal economic measurement framework.
- Criminal economy linkages as proceeds from counterfeit toy sales fund broader organised criminal activity, including drug trafficking, human trafficking and arms smuggling, generating second-order economic and social costs that significantly exceed the direct market displacement estimate.

The economic costs of illicit trade are not limited to current market displacement. SATAGA survey evidence indicates that if illicit trade were significantly reduced, the industry would reinvest primarily in job creation, expansion of operations and higher tax compliance – confirming that illicit trade is actively suppressing investment and employment growth that would otherwise occur. A further dimension not captured in the multiplier framework is the chilling effect on foreign investment and brand entry:

SATAGA notes that numerous leading international brand owners who have successfully launched in other markets are hesitant to enter South Africa specifically because of the prevalence of counterfeit goods. This represents a structural drag on market development, consumer choice and long-term sector growth that extends well beyond the direct revenue losses quantified below.

The impact modelling that follows quantifies the measurable economic effects – lost output, tax revenue and employment – by applying sector-specific value-added, tax and employment multipliers to the base-case illicit market estimate. The consumer health and criminal economy dimensions, while material, are not directly quantifiable within the multiplier framework and are addressed qualitatively in the broader assessment.

Methodological note

The toys and games sector differs from many of the other sectors assessed in this study because it is highly import-dependent, with limited domestic manufacturing activity. As a result, the economic impacts presented in this section primarily reflect the displacement of domestic value added associated with importation, wholesale distribution, logistics, warehousing and retail activity, rather than the loss of local manufacturing output.

The estimates focus on direct economic, fiscal and employment impacts and **do not include broader economy-wide multiplier effects**, which are excluded to maintain a conservative approach and **avoid potential double-counting**. Consequently, the impacts presented should be interpreted as a conservative estimate of the direct economic costs of illicit toys and games trade to South Africa.

Contribution To South Africa's Government Revenue And The Fiscal Impact Of Illicit Toys and Games Trade

The toys and games sector contributes approximately R1.3 billion in direct government revenue through VAT, customs duties, personal income tax and other activity-related taxes. Illicit trade erodes this contribution by diverting economic activity away from compliant, duty-paying importers, distributors and retailers and out of the formal tax system.

Direct formal sector taxes — current

R1.3bn

Taxes on products (VAT, duties): R1.1bn (84.6%)
PIT → R193m
Activity taxes → R37m

VAT / duties · PIT · Activity taxes

Potential tax revenue if illicit demand redirected to compliant operators

R1.6bn

Estimated direct government tax revenue if demand captured by illicit toys & games trade were fully redirected to compliant operators

Direct tax loss from illicit trade

R333m

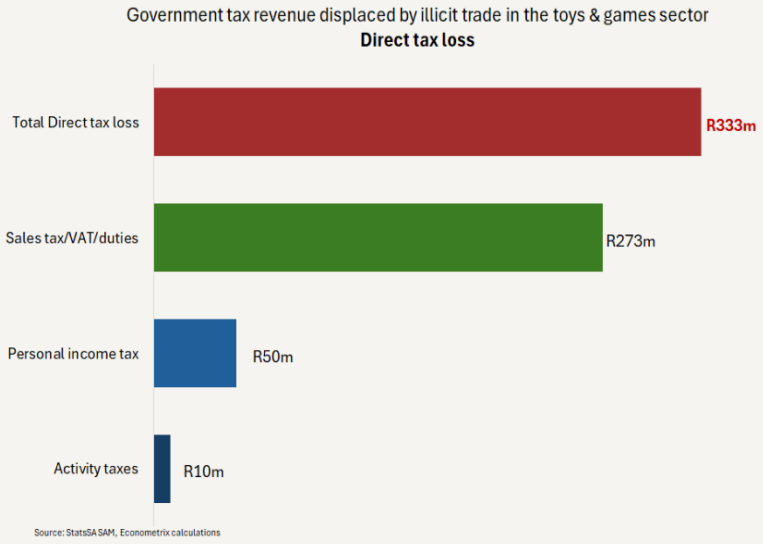
Taxes on products (VAT/duties): R273m (82%)
PIT → -R50m
Activity taxes → -R10m

VAT / duties (lost) · PIT · Activity taxes

The fiscal suppression effect

Based on a working estimate of R1.9 billion, the illicit toys and games trade is estimated to result in approximately R333 million in direct tax losses annually.

Consequently, direct tax revenue from the sector could increase from approximately R1.3 billion currently to an estimated R1.6 billion if the demand currently captured by illicit trade were redirected to compliant operators.



The overwhelming majority of this loss – approximately R273 million (82%) – arises from foregone VAT, customs duties and related import levies.

This is consistent with the sector's near-complete import dependence, with the vast majority of toys sold in South Africa imported, meaning that illicit trade operates primarily through customs misdeclaration, undervaluation and the importation of non-compliant goods that avoid applicable customs duties, VAT and product-safety compliance requirements. Personal income tax losses are estimated at approximately R50 million, while activity-related taxes account for a further R10 million. The relatively lower PIT share reflects the toys and games sector's limited direct formal employment base relative to its market size – consistent with a value chain concentrated in import, distribution and retail rather than domestic manufacturing.

The fiscal argument for enforcement

The estimated R333 million annual tax loss represents revenue that could potentially be recovered through improved port-level safety screening, customs risk profiling, importer compliance and measures targeting under-invoicing and misdeclaration of toy consignments.

Unlike tax rate increases or new revenue measures, these gains could be achieved through improved compliance and enforcement within existing customs and import frameworks – with the additional benefit of simultaneously removing non-compliant and potentially dangerous products from the market.

SATAGA survey evidence further indicates that reducing illicit trade would support higher formal-sector sales, investment and tax compliance, potentially increasing fiscal benefits beyond the direct tax-loss estimate presented here.

Contribution To South Africa's GDP (2024) and the Economic Impact of Illicit Toys & Games Trade

GDP Impact Methodology

The analysis estimates the economic activity currently displaced by the illicit trade in toys and games using a three-step approach.

South Africa's toys and games market is almost entirely import-dependent – the vast majority of formal toy sales involve imported products. As a result, illicit trade displaces domestic value added not through manufacturing, but primarily through wholesale and retail trade margins, logistics, warehousing, marketing and related business services. This import concentration means that the GDP displacement calculation differs structurally from sectors with meaningful domestic production.

Step 1 – Establish the formal sector baseline

The direct economic contribution of the toys and games sector is derived from the 2022 Statistics South Africa Supply-Use Tables (SUTs), updated to 2024 values, approximated as 30% of the broader P56 "other manufacturing" product category. This provides the sector's measured gross value added (GVA), output, employment and tax contribution as currently reflected in the national accounts.

Step 2 – Estimate displaced formal activity

The working estimate of R1.9 billion is expressed at formal market-equivalent prices to reflect the economic activity displaced from compliant businesses. After removing trade and transport margins of R608 million and taxes on products, the estimate equates to approximately R1.15 billion in displaced formal-sector production output (at basic prices).

Step 3 – Estimate direct GDP displacement

The direct GDP impact of the illicit toys and games trade is estimated at **R545 million** annually, comprising two components:

- **Direct GVA displaced: R272 million** – derived by applying the sector's GVA-to-output ratio of approximately **24%** (SUT-derived) to the displaced production output of **R1.15 billion**. This measures the loss of value added within the sector, which is concentrated in wholesale, retail and distribution activities.
- **Foregone taxes on products: R273 million** – comprising VAT, customs duties and other taxes on products associated with displaced formal-sector activity. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA.

Key methodological notes

- The R1.9 billion working estimate represents the base-case central estimate and should be interpreted as a conservative measure of direct economic displacement. Impacts under the conservative scenario would be proportionally lower; the SATAGA volume-based upper bound would imply materially larger impacts.
- The analysis estimates economic activity currently displaced by illicit trade and should not be interpreted as a forecast that the full illicit market would immediately convert into formal-sector activity if illicit trade were eliminated.

- The consumer health costs and criminal economy linkages associated with counterfeit toys are material but not directly quantifiable within the multiplier framework and are addressed qualitatively in the broader assessment.
- The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are taken into account. However, these have not been quantified in the central estimate to avoid potential double-counting and to maintain a conservative approach.

Key results

- South Africa's toys and games market is almost entirely import-dependent. Illicit imports therefore displace domestic value added primarily across wholesale trade, logistics, warehousing, retail and related business services – without generating the associated formal-sector economic contribution.
- Unlike sectors with meaningful domestic manufacturing, there is no local production base to protect; the economic impact falls entirely on the import, distribution and retail stages of the value chain.
- The combined effect of counterfeit availability, safety non-compliance and IP infringement also creates a structural deterrent to formal market investment – with SATAGA noting that leading international brand owners are hesitant to enter the South African market specifically because of the prevalence of counterfeiting. This represents an ongoing drag on market development that extends beyond the direct displacement estimate below.

Calculation Summary

STEP	DESCRIPTION	VALUE
1	**Formal sector direct GVA baseline (current, illicit trade present)**	**R1.3bn**
2	Illicit market estimate (formal-equivalent prices)	**R1.9bn**
	Less: trade and transport margins	**–R608m***
	= Displaced formal production output (at basic prices)	**R1.15bn**
	× Sector GVA/output ratio (SUT-derived)	**~24%**
3a	**= Direct GVA displaced by illicit trade**	**R272m**
3b	**+ Foregone production taxes due to displaced activity**	**R273m**
3c	**= Direct GDP impact of illicit trade**	**R545m**
Counterfactual	**Direct toys & games GVA if illicit trade were eliminated**	**R1.6bn**

* → After converting the estimate from purchasers' prices to basic prices by removing taxes on products as well as trade and transport margins, the estimate equates to approximately R1.15 billion in displaced formal-sector production output.

Counterfactual = estimated direct toys and games-sector GVA if the illicit toys and games trade were eliminated and displaced consumption shifted to the formal sector.

Direct GVA contribution — current	Direct GVA displaced	Direct GDP impact of illicit trade	GVA if illicit trade were eliminated	Formal sector production output displaced
R1.3bn	**R272m**	**R545m†**	**R1.6bn**	**R1.15bn**
0.1% of total SA GVA	annually through illicit toys & games	Direct GVA displaced (R272m) *plus* foregone taxes on products due to displaced activity (R273m)†		annually by illicit toys & games (at basic prices)

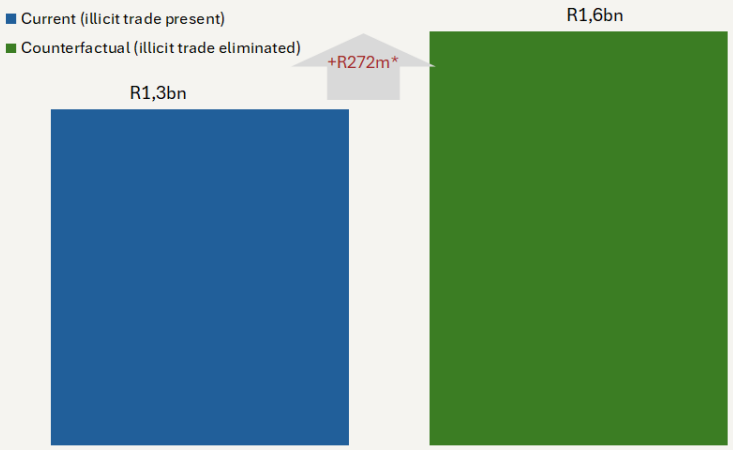
†GDP impact = direct GVA displaced plus foregone taxes on products associated with displaced formal sector activity. Taxes on products include VAT and duties. These taxes accrue to government rather than the sector itself and are therefore reported separately from GVA. In the national accounts framework, GDP equals GVA plus net taxes on products.

The illicit trade suppression effect

Approximately R1.9 billion in toy and game consumption occurs through illicit channels annually, diverting demand away from compliant, duty-paying importers, distributors and retailers.

Under the working estimate, this is estimated to displace approximately R1.15 billion in formal-sector production output, R272 million in direct-sector GVA and R545 million in total GDP impact annually.

Direct GVA contribution of toys and games sector: current vs counterfactual



Source: StatsSA SAM, Econometrix calculations

When foregone taxes on products of R273 million is also included, the broader impact of illicit toys & games trade is estimated at **R545 million** annually

As a result, the measured economic contribution of the toys and games sector is suppressed, with official GVA estimates understating the sector's potential contribution to the economy.

The broader economy-wide impacts are likely to be materially larger once supply-chain and household-spending effects are taken into account, although these have not been quantified in the central estimate in order to maintain a conservative approach.

The economic growth argument for enforcement

Strengthening enforcement against illicit trade in toys and games would support economic growth by redirecting consumer expenditure from counterfeit and non-compliant products towards compliant importers, distributors and retailers.

Although South Africa has only a limited domestic manufacturing base in this sector, greater compliance would expand formal wholesale, logistics, warehousing, retail and related business services, while increasing VAT, customs duties and other tax revenues. Improved enforcement would also strengthen consumer confidence in product safety, reduce the circulation of counterfeit and unsafe toys, and improve South Africa's attractiveness as a destination for leading international toy brands and investment.

Over time, this would support a larger, more competitive and higher-value formal toys and games market, with associated gains in employment, tax revenue and economic activity.

Contribution To SA's Employment and Impact of Illicit Toys & Games Trade

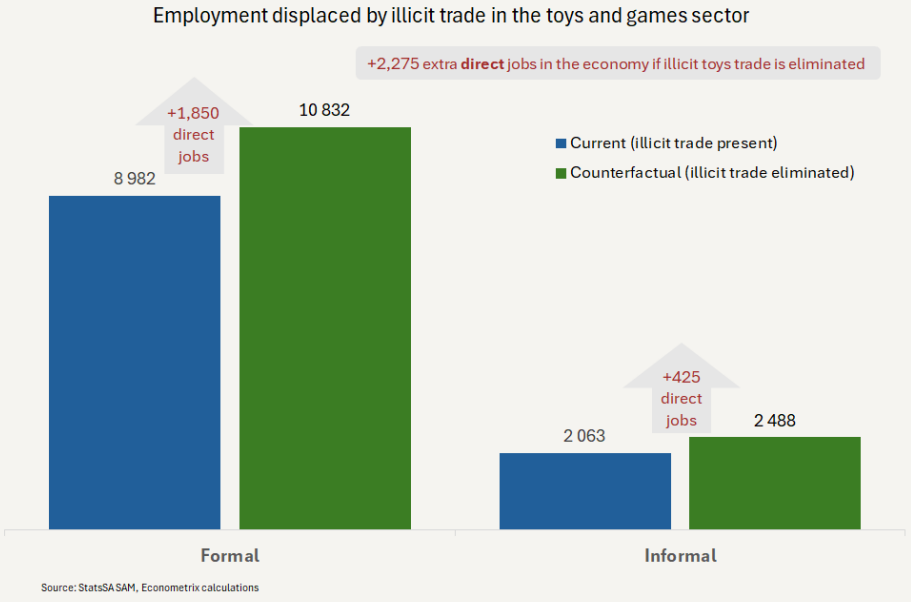
Unlike most other sectors in this study, the toys and games sector has a very limited domestic manufacturing base – direct employment is concentrated in wholesale, retail, distribution and brand management rather than production.

- Formal employment account for 81%; low-skilled workers account for approximately 54.7% of direct formal employment. Consequently, illicit trade displacement falls disproportionately on workers with the fewest alternative formal employment opportunities. Semi-skilled workers account for a further 30.9% of formal employment.
- Informal workers account for approximately 19% of total direct employment, reflecting the sector's retail- and distribution-oriented structure and the important role played by informal traders in toy and game sales.
- While illicit trade affects both formal and informal participants, the disproportionate impact on low-skilled retail and distribution workers – combined with the deterrent effect on foreign brand entry documented by SATAGA – means the employment consequences of illicit trade extend well beyond the direct displacement estimate.

Direct employment — current	Direct jobs displaced by illicit trade (estimate)	Potential direct employment if illicit demand shifted to compliant businesses	Low-skilled formal job share
11,045 jobs	**2,275 jobs**	**13,320**	**54.7%**
Formal: 8,982 (81.3%) Informal: 2,063 (18.7%)	Formal: 1,850– Informal: 425	*(formal and informal)*	One of highest unskilled share of sectors in this study

The employment suppression effect

The toys and games sector currently employs an estimated 11,045 people. Applying the estimated 20.6% sector-specific direct GVA displacement ratio to current employment levels suggests that approximately **2,275 direct formal and informal jobs are displaced by illicit** trade in toys and games.



Total direct-sector employment could potentially reach approximately 13,320 formal and informal jobs if demand currently captured by illicit channels were redirected towards compliant businesses.

Taking indirect and induced effects across manufacturing, wholesale trade, transport, logistics, retail and other linked industries into account, **the sector currently supports approximately 175,511 jobs across the broader South African economy**.

These jobs represent employment that could potentially be supported across the toys and games value chain–including manufacturing, imports, wholesale distribution, retail, logistics and brand management – if illicit trade were reduced and displaced demand recovered by compliant businesses.

The employment argument for enforcement

The employment impact of illicit trade extends beyond lost sales.

By diverting demand away from compliant importers, distributors and retailers, illicit trade reduces incentives for investment, store expansion and workforce growth in the formal retail and wholesale segments of the value chain.

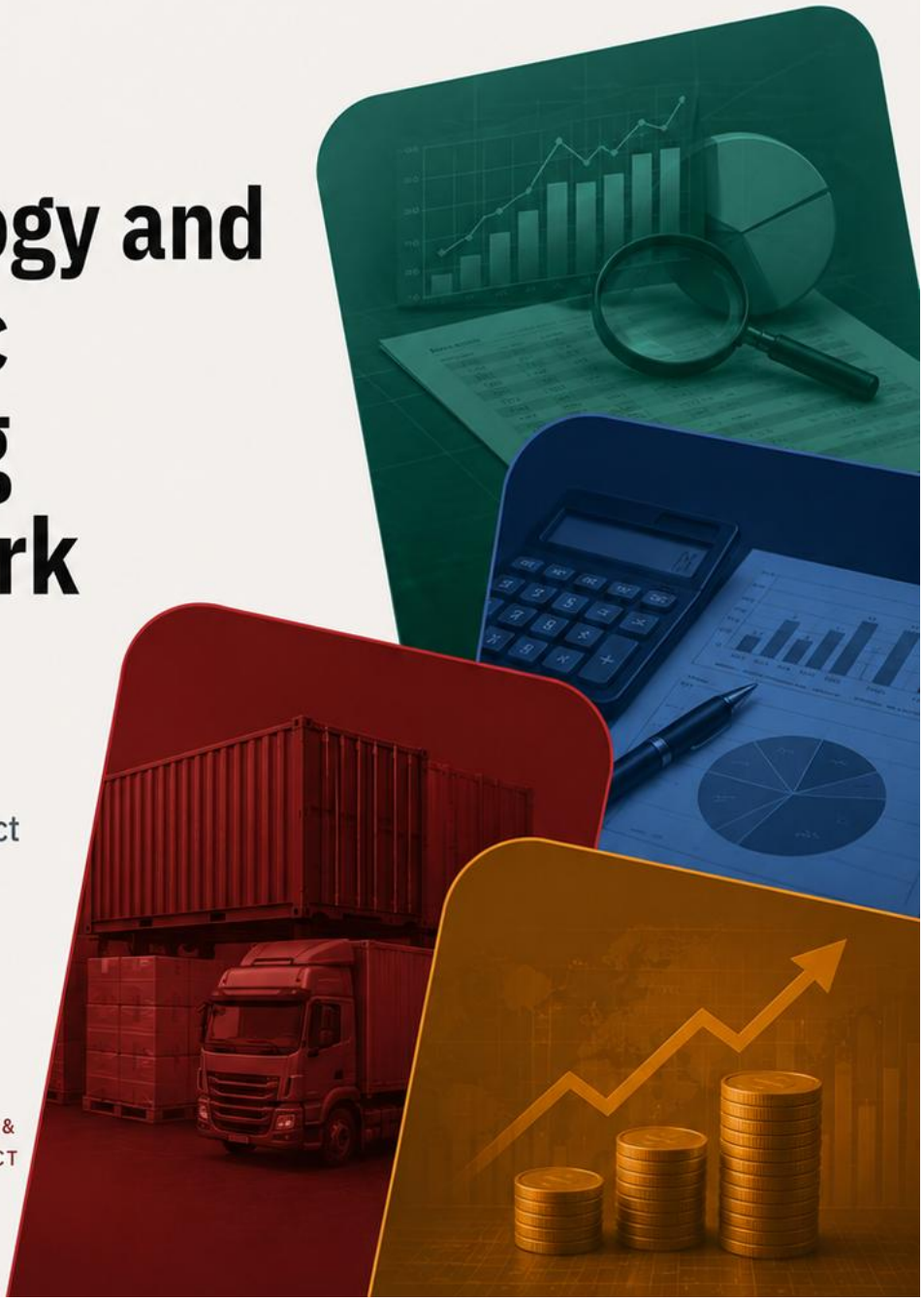
Given the sector's high concentration of low-skilled workers – the highest unskilled share of all sectors studied – and the well-documented deterrent effect on international brand entry, reducing illicit trade could support both employment retention among vulnerable workers and the longer-term market development that would create additional formal employment opportunities across retail, distribution and brand management.

SECTOR CHAPTER

16

Detailed Methodology and Economic Modelling Framework

Economic Contribution of Selected Sectors and the Estimated Direct Impact of Illicit Trade



ECONOMIC, FISCAL & EMPLOYMENT IMPACT ASSESSMENT

INTRODUCTION

This section provides an overview of the economic contribution of selected sectors in South Africa, followed by an assessment of the potential impact of illicit trade within these sectors. This serves as an aggregated summary of the illicit trade estimates and economic impacts presented in the subsequent sector chapters.

Measuring illicit trade is inherently difficult because illicit markets are hidden by nature. Rather than relying on a single source, this report combines official Statistics SA Supply and Use Tables, National Accounts, Non-Observed Economy estimates, customs and mirror trade analysis, regulatory information, industry data and sector-specific research to derive conservative working estimates.

The analysis begins with an industry-level perspective based on national accounts and Supply-Use Table (SUT) data, which provide the structure of output, value added and taxation across the economy, including Statistics SA's estimates of the informal and illicit economy. It also provides a detailed industry- and product-level analysis based on the 2022 SUT, adjusted to reflect the 2024 economy. This perspective allows for a clear distinction between production activities and the composition of products within the market, which is particularly important when analysing illicit trade in the selected sectors.

The section further quantifies the direct economic contribution of the selected sectors in terms of output, gross value added, employment and tax revenue. The analysis is further extended using a Leontief-based multiplier model to capture indirect and induced effects, thereby providing an estimate of the full economy-wide footprint of these sectors.

The final part of this section presents adjustments for informal and illicit activity based on Statistics South Africa's estimates and introduces the illicit penetration and price distortion assumptions used to approximate the size of illicit activity and its impact on economic output and government revenue.

This report focuses on the direct economic impacts of illicit trade. Although the selected sectors generate substantial indirect and induced economy-wide impacts, estimating the corresponding multiplier effects of illicit trade remains subject to considerable uncertainty. A discussion of these methodological considerations is provided in the Appendix.

ECONOMIC STRUCTURE OF THE SOUTH AFRICAN ECONOMY

1. Industry Structure of the South African Economy

The data in **Table 89** provides a comprehensive overview of the **structure of the South African economy**, using key national accounting aggregates derived from the 2022 SUT. This SAM was constructed from the 2022 Supply and Use Tables (SUT), other data from Statistics South Africa (Stats SA) and the South African Reserve Bank (SARB).

The table shows the total **industry output, gross value added (GVA), activity taxes, and compensation of employees** to capture both the production and income dimensions of economic activity. Not all the sectors that are the focus of this study are included in the SUT data, but a breakdown is provided of sectors that are included in the SUT.

Total industry output represents the total value of goods and services produced by each industry **at basic prices**. It reflects the production activity of industries, irrespective of whether the output is sold for final consumption, used as intermediate inputs by other industries, or exported. In the context of the SUT, this measure captures the full scale of economic activity generated by each industry before the deduction of intermediate inputs (which yield GVA).

Importantly, Table 89 presents data from an **industry (activity) perspective**, meaning that output is classified according to the producing industry (the data is classified according to Standard Industrial Classification (SIC) codes). This differs from a **product perspective** (as used in **Table 91**), where output is organised by the type of product supplied to the market, regardless of which industry produces it or whether it is imported (the output from a product perspective is classified according to the Central Product Classification (CPC) codes).

The industry perspective is particularly useful for analysing production structures, income generation, and sectoral contributions to GDP. The product perspective is especially valuable in the context of illicit trade, as such activities typically occur at the level of specific goods (for example, tobacco, alcohol, pharmaceuticals, clothing, etc.)

Importantly, **combining both industry and product perspectives provides a more comprehensive framework** for analysing the economic impact of illicit activities. The industry perspective enables the assessment of effects on production, employment, income generation, and activity-based taxes, while the product perspective allows for the evaluation of consumption patterns, trade flows, and product-specific tax losses. Together, these perspectives support a more robust estimation of the potential impacts of illicit trade on not only the overall tax income, but also GDP, employment and total output.

From a structural perspective, the South African economy is **dominated by the services sector**, particularly finance and business services, which account for the largest share of GVA (22.5%) and 42.2% of activity taxes[60]. Manufacturing remains a critical productive sector, contributing 22.4% of total output and 12.8% of GVA, highlighting its role in value chains. Data for the sectors that are the focus of this report and that are available in the SUT are shown within the structure of the economy. This includes subsectors such as food, beverages, tobacco, petroleum refining, retail of automotive fuel and recreational (under which gambling falls).

[60] *In the SAM, activity taxes refer to taxes levied on the production activities of industries. It excludes taxes directly linked to specific products such as VAT or excise duties. These activity taxes include taxes on production factors, business licenses and other charges associated with operating an economic activity. While typically smaller than product-based taxes, they remain an important component of the overall tax structure.*

Mining continues to play a significant role, contributing 8.2% to GVA and 8.8% to output, reflecting its capital-intensive nature and export orientation. Retail and wholesale trade, alongside accommodation and catering, are also major contributors to GVA (12.2%).

The table also highlights the role of the "informal, illicit, non-profit, and households" sector, which contributes 7.5% to GVA and 5.9% to total output. Unfortunately, Stats SA doesn't provide a split between informal, illicit, non-profit and households.

Overall, the table provides a baseline in terms of rand value and percentage contribution that can be used in assessing the economic impact of each sector and the potential economic impact of illicit trade in the context of official macro-economic data.

Table 89: Industry overview in terms of output, gross value added (GVA), activity tax and compensation of employees (2022 SUT)

	Rand millions				Percentage of total			
	Total Industry output at basic prices	GVA	Activity tax	Total compensation of employees	Total Industry output at basic prices	GVA	Activity tax	Total compensation of employees
Agriculture	531 284	154 588	1 033	52 895	4.0%	2.6%	0.9%	1.8%
Mining	1 152 069	481 122	6 778	166 996	8.8%	8.2%	5.8%	5.5%
Manufacturing	2 945 033	752 102	15 662	364 749	22.4%	12.8%	13.4%	12.1%
Food	486 963	108 004	2 688	52 135	3.7%	1.8%	2.3%	1.7%
Beverages	141 792	58 448	1 267	17 814	1.1%	1.0%	1.1%	0.6%
Tobacco products	18 396	12 045	41	1 520	0.1%	0.2%	0.0%	0.1%
Clothing & textiles	89 793	27 871	376	14 055	0.7%	0.5%	0.3%	0.5%
Petroleum refineries	373 408	81 519	2 374	17 681	2.8%	1.4%	2.0%	0.6%
Basic chemicals & Other chemicals	310 692	76 164	2 404	42 675	2.4%	1.3%	2.1%	1.4%
Other manufacturing	1 523 989	388 050	6 512	218 870	11.6%	6.6%	5.6%	7.3%
Electricity and gas	436 996	189 162	7 718	55 568	3.3%	3.2%	6.6%	1.8%
Construction	423 639	120 920	2 692	86 749	3.2%	2.1%	2.3%	2.9%
Retail, wholesale, catering & accommodation	1 349 634	713 935	13 120	365 689	10.3%	12.2%	11.2%	12.1%
Automotive fuel	35 057	21 916	1 500	11 445	0.3%	0.4%	1.3%	0.4%
Transport & communication	1 075 656	387 624	6 913	167 635	8.2%	6.6%	5.9%	5.6%
Finance & business service	2 438 589	1 321 912	49 426	556 383	18.6%	22.5%	42.2%	18.5%
General government	805 535	491 864	7 717	387 722	6.1%	8.4%	6.6%	12.9%
Community and other services	1 206 850	817 610	5 637	627 733	9.2%	13.9%	4.8%	20.8%
Recreational	82 279	38 126	830	14 745	0.6%	0.6%	0.7%	0.5%
Informal, illicit, non-profit, and households (NOE)	773 486	442 693	345	181 753	5.9%	7.5%	0.3%	6.0%
Total	**13 138 771**	**5 873 531**	**117 043**	**3 013 872**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: 2022 SUT (Stats SA), own estimates.

Key insight. South Africa's economy is services-led, while manufacturing and mining remain critical productive sectors. Many of the sectors examined in this study are concentrated within manufacturing, highlighting the importance of these industries to GDP, employment and tax revenue, and explaining why illicit trade within these sectors has disproportionately large economic and fiscal consequences.

2. Employment Structure by Industry

The employment estimates by sector, disaggregated into formal (skilled, semi-skilled, and unskilled) and informal employment, are shown in **Table 90**.

The data are constructed from Quarterly Employment Statistics (QES) and Labour Market Dynamics (LMD) and aligned as best as possible with the SAM framework.

The results indicate that total formal employment is concentrated in services sectors, particularly community and social services, finance and business services, and trade-related sectors.

Manufacturing remains a key employer, particularly for semi-skilled labour, while agriculture and construction exhibit relatively high shares of unskilled employment.

Importantly, the table highlights the significant scale of informal employment, which amounts to over 5 million workers. Sectors such as retail and wholesale trade, construction, and transport show particularly high levels of informal activity. This is highly relevant in the context of illicit trade, as informal labour markets often overlap with unregulated and illicit production and distribution channels.

What is concerning is the number of informal employees in highly regulated sectors like mining (over 15 000), beverages[61] (over 10 000) and tobacco products (over a 1000), indicating the overlap between informal/illicit markets and unregulated economic activity.

Overall, the employment structure underscores the dual nature of the South African economy, with a significant informal component that interacts closely with formal production systems.

Table 90: Employment by sector and skill level, 2024 (rounded)

	Total Formal	Formal per skills level			Informal	Total Employment
	Total formal employment	Formal Skilled	Formal Semi-skilled	Formal Unskilled	Total informal and other	
Agriculture	615 000	28 900	116 900	469 300	291 500	906 500
Mining	444 400	58 100	297 000	89 300	15 600	460 000
Manufacturing	1 349 800	281 200	766 800	301 800	343 400	1 693 200
Food	251 100	27 800	126 100	97 300	59 200	310 300
Beverages	64 000	15 400	26 000	22 600	10 700	74 700
Tobacco products	5 500	4 300	-	1 200	1 000	6 500
Clothing & textiles	101 400	13 200	69 000	19 200	108 900	210 300
Petroleum refineries	33 300	12 800	17 000	3 500	300	33 600
Basic chemicals & Other chemicals	112 100	34 900	53 900	23 300	4 600	116 700
Other manufacturing	782 400	172 800	474 800	134 800	158 700	941 100
Electricity and gas	95 000	31 000	54 500	9 500	11 800	106 800
Construction	309 600	59 100	148 700	101 800	643 500	953 100
Retail, wholesale, catering & accommodation	1 818 400	328 700	1 181 300	308 300	1 390 100	3 208 500
Automotive fuel	49 500	4 600	42 800	2 000	12 000	61 500
Transport & communication	449 800	131 500	248 900	69 300	455 200	905 000
Finance & business service	1 375 000	613 500	607 400	154 100	404 500	1 779 500

[61] *Stats SA doesn't split the 'Beverages' employment data from data between alcoholic and non- alcoholic beverages.*

	Total Formal	Formal per skills level			Informal	Total Employment
	Total formal employment	Formal Skilled	Formal Semi-skilled	Formal Unskilled	Total informal and other	
General government	1 026 100	324 500	613 100	88 600	12 100	1 038 200
Community and other services	1 759 000	1 077 800	510 600	170 700	633 100	2 392 100
Recreational	50 900	18 700	24 300	8 000	16 700	67 600
Informal, illicit, non-profit, and households (NOE)	231 200	-	8 900	222 300	936 300	1 167 500
Total	**9 473 200**	**2 934 200**	**4 554 000**	**1 985 000**	**5 137 100**	**14 610 300**

Source: Constructed from Stats SA LMD, QES and own estimates.

Key insight. South Africa's informal economy supports more than 5 million workers, highlighting the substantial scale of economic activity occurring outside the fully regulated formal sector.

The overlap between informal employment and highly regulated industries provides an environment in which illicit production, distribution and retail activities can more readily operate, reinforcing the importance of incorporating the Non-Observed Economy (NOE) into illicit trade analysis.

3. Product Structure of the Economy

Table 91 presents a detailed product-level decomposition of total output at both **basic and purchasers' prices**, alongside **household consumption expenditure, sales taxes[62], imports, and exports**.

The **distinction between basic and purchasers' prices highlights the role of indirect taxes and margins**, which are removed and are particularly relevant for sectors such as alcohol, tobacco, and fuel, where excise duties form a substantial component of final prices. **Both tobacco and alcohol products exhibit disproportionately high sales tax components relative to their output, reflecting their importance as revenue-generating goods and incentives for illicit activities**.

The transaction cost represents the difference between output at basic prices and purchasers' prices, excluding product taxes.

These costs primarily reflect trade and transport margins, including wholesale and retail distribution, logistics, storage, and other costs incurred in bringing products from producers to final users. At an aggregate level, total transaction costs amount to R1.14 trillion, or 7.2% (see Table 92) of total output at purchasers' prices. Primary sectors such as agriculture (11.2%) and mining (4.7%) show lower transaction cost shares, as a result of more direct supply chains and a larger proportion of bulk or export-oriented distribution.

These costs are particularly high in consumer-facing sectors such as clothing (30%), pharmaceuticals (28.3%), and beverages, reflecting more complex supply chains and, in some cases, significant retail margins. These complex supply chains, including, for example, importation, wholesale distribution, and retail mark-ups, can also reflect sectors where branding, packaging, and retail margins are important components of final prices.

62 Sales taxes refer to taxes levied on goods and services at the point of sale. These include value-added tax (VAT) and excise duties (particularly relevant for alcohol, tobacco, and fuel).

From an illicit point of view, in sectors with higher margins, there is a greater incentive to bypass formal distribution channels, allowing them to undercut legal prices. When combined **with high product taxes, transaction costs further widen the gap between production costs and final prices**, **strengthening incentives for smuggling, under-declaration, or counterfeit trade.**

Household consumption patterns indicate that food, beverages, and soft drinks are heavily consumption-driven sectors, with a large share of output absorbed domestically. In contrast, mining and certain manufacturing subsectors are more export-oriented, while petroleum products exhibit significant import dependence.

Pharmaceuticals and personal care products show a combination of domestic consumption and high import penetration, indicating potential vulnerabilities to illicit imports. Similarly, clothing and textiles demonstrate high import shares, consistent with global evidence linking such sectors to counterfeit and illicit trade.

This table provides critical insight into the demand and trade characteristics of each sector, further supporting a baseline to compare illicit market activity against.

Table 91: Product-level supply, demand, and trade structure (2022)

	Total product output at basic prices[63]	Total product output at purchasers' prices	Household consumption expenditure	Transaction cost	Sales Tax	Imports	Exports
Agriculture	457 660	517 710	100 407	57 929	2 121	31 887	107 561
Mining	858 294	900 706	1 335	41 961	452	172 403	456 832
Crude petroleum, gas	167 577	167 604	-	-	27	150 787	26 912
Manufacturing	5 394 130	6 844 388	1 784 769	1 013 825	436 433	1 699 495	1 447 920
Food	710 893	942 191	527 865	187 057	44 241	109 420	82 678
Alcohol beverages	124 816	231 722	138 339	42 511	64 395	10 466	19 914
Soft drinks	53 720	83 788	60 534	22 732	7 336	1 957	2 915
Tobacco products	34 727	46 281	40 663	-13 521[64]	25 076	3 769	3 579
Clothing & textiles	223 823	379 178	226 428	113 682	41 673	95 350	22 252
Petroleum oils	445 859	644 480	138 897	70 202	128 418	123 102	35 606
Pharmaceutical	99 355	154 799	87 023	44 880	10 563	57 091	3 513
Soap, perfumes	61 069	93 866	51 703	26 525	6 272	14 816	16 966
Basic chemicals & Other chemicals	350 447.0	386 099.1	33 350.5	4 434.8	2 301.6	156 002.9	110 112.4
Other manufacturing	3 289 421	3 881 984	486 406	508 881	106 158	1 127 520	1 150 386
Electricity and gas	442 726	468 490	190 865	30 900	24 757	4 671	12 840
Construction	461 320	491 047	5 497	-	29 728	55	176
Retail, wholesale, catering & accommodation	1 349 047	358 853	193 936	-	37 358	26 209	54 645
Transport & communication	1 118 232	1 037 943	365 134	-	6 882	164 090	51 044

[63] *The total output at basic prices from a product point of view is approximated by removing the transport and trade margins and sales taxes.*

[64] *The negative transaction cost for tobacco products (-R13.5 billion; -29.2%) is not as expected and requires careful interpretation, although informative for this study. The negative transaction cost according to discussion with Stats SA is a result of balancing. They use an IMF balancing tool that reached the limit in terms of redistribution of the residual and as a result gives back a negative margin – which is difficult to explain economically. This basically implies a significant mismatch between supply and use (discrepancies in reported production, imports, taxes, or consumption may be offset through margins) and reflect the under reporting of legal sales.*

	Total product output at basic prices[63]	Total product output at purchasers' prices	Household consumption expenditure	Transaction cost	Sales Tax	Imports	Exports
Finance & business service	2 926 016	3 018 429	893 706	-	92 413	102 461	85 526
General government	866 592	869 421	18 134	-	2 828	3 879	4 679
Community and other services	1 358 574	1 401 611	674 200	-	43 037	5 098	14 711
Total	**15 232 590**	**15 908 597**	**4 227 984**	**1 144 616**	**676 007**	**2 210 248**	**2 235 934**

Source: 2022 SUT (Stats SA), own estimates.

4. Structural Characteristics of Products

Table 91 shows the share of total output at purchasers' prices, allowing for a clearer interpretation of structural relationships within each sector. The results highlight sectors such as **tobacco and alcohol that exhibit extremely high tax-to-output ratios, reinforcing their attractiveness for illicit trade due to the price differentials created by taxation**. Tobacco products show a very high sales tax share of over 50% of output.

Although retail sales of automotive fuel are not included in this table, given that it is not a separate product in the SUT (it is included as an industry in **Table 89**), 'crude petroleum, gas' is included, which shows a very high import dependency of 90% and 'Petroleum oils' that shows a sales tax of 19% of total output at purchases prices.

Household consumption as a share of total output dominates in sectors such as food, soft drinks, alcoholic beverages, tobacco, and clothing and textiles. High import shares occur in sectors such as pharmaceuticals and clothing, suggesting potential entry points for illicit goods, including counterfeit products. Export intensity remains concentrated in mining and certain manufacturing subsectors, while the services sectors are largely domestically oriented.

Table 92: Structural ratios of output at basic prices, consumption, taxation, imports and exports as a percentage of total output at purchases' prices

	Total product output at basic prices	Household consumption expenditure	Transaction cost	Sales Tax	Imports	Exports
Agriculture	88.4%	19.4%	11.2%	0.4%	6.2%	20.8%
Mining	95.3%	0.1%	4.7%	0.1%	19.1%	50.7%
Crude petroleum, gas	100.0%	0.0%	0.0%	0.0%	90.0%	16.1%
Manufacturing	78.8%	26.1%	14.8%	6.4%	24.8%	21.2%
Food	75.5%	56.0%	19.9%	4.7%	11.6%	8.8%
Alcohol beverages	53.9%	59.7%	18.3%	27.8%	4.5%	8.6%
Soft drinks	64.1%	72.2%	27.1%	8.8%	2.3%	3.5%
Tobacco products	75.0%	87.9%	-29.2%[65]	54.2%	8.1%	7.7%
Clothing & textiles	59.0%	59.7%	30.0%	11.0%	25.1%	5.9%
Petroleum oils	69.2%	21.6%	10.9%	19.9%	19.1%	5.5%
Pharmaceutical	64.2%	56.2%	29.0%	6.8%	36.9%	2.3%

65 See footnote 64.

	Total product output at basic prices	Household consumption expenditure	Transaction cost	Sales Tax	Imports	Exports
Soap, perfumes	65.1%	55.1%	28.3%	6.7%	15.8%	18.1%
Basic chemicals & Other chemicals	90.8%	1.1%	8.6%	0.6%	40.4%	28.5%
Other manufacturing	84.7%	13.1%	12.5%	2.7%	29.0%	29.6%
Electricity and gas	94.5%	40.7%	6.6%	5.3%	1.0%	2.7%
Construction	93.9%	1.1%	0.0%	6.1%	0.0%	0.0%
Retail, wholesale, catering & accommodation	375.9%	54.0%	0.0%	10.4%	7.3%	15.2%
Transport & communication	107.7%	35.2%	0.0%	0.7%	15.8%	4.9%
Finance & business service	96.9%	29.6%	0.0%	3.1%	3.4%	2.8%
General government	99.7%	2.1%	0.0%	0.3%	0.4%	0.5%
Community and other services	96.9%	48.1%	0.0%	3.1%	0.4%	1.0%
Total	**95.8%**	**26.6%**	**7.2%**	**4.2%**	**13.9%**	**14.1%**

Source: 2022 SUT (Stats SA), own estimates.

Key insight

High taxes, strong consumer demand and complex supply chains create stronger incentives for illicit trade by increasing the potential financial gains from tax evasion, under-declaration and counterfeit production.

Products with multiple distribution stages, significant import exposure and high tax burdens are generally **more vulnerable** to smuggling, under-declaration, counterfeiting and other forms of illicit activity.

These structural characteristics help explain why **certain sectors exhibit significantly higher levels of illicit activity** than others and form an important consideration in the sector-specific assessments presented in this report.

THE NON-OBSERVED ECONOMY (NOE) AS MEASURED BY STATISTICS SA

Statistics South Africa (Stats SA) incorporates estimates of the **Non-Observed Economy (NOE)** within the Supply and Use Tables (SUTs) to improve the completeness of the national accounts.

The NOE comprises economic activity that is not fully captured through conventional statistical reporting and includes elements of the informal economy, certain illicit activities, non-profit institutions and household production.

Within the SUT framework, these activities are represented as the aggregated **"Informal, illicit, non-profit and households"** sector.

The following tables examine this sector from both a demand (use) and supply perspective. Although the SUTs do not separately identify informal, illicit, non-profit and household activities, they provide a valuable indication of the sectors in which non-observed economic activity is concentrated.

These estimates form an important input into the methodology used throughout this report to estimate the potential economic impact of illicit trade.

1. Demand-side Linkages of the NOE

The table below shows the intermediate use of products by the aggregated "Informal, illicit, non-profit, and households[66]" sector over the period 2018–2022 as provided in the SUT of Stats SA. According to Stats SA, this information is compiled from informal estimates using data from the Quarterly Labour Force Survey (QLFS), while **illegal activities are compiled from a range of sources, including seizure and confiscation data from the South African Revenue Service (SARS) and the South African Police Service (SAPS).**

The data show that the use of manufactured products dominates intermediate consumption within this sector, of which alcohol beverages and tobacco products especially **exhibit relatively high percentage shares of use** when expressed as a percentage of total output, suggesting significant **interaction between formal production and informal or illicit distribution channels.**

This table is particularly important for understanding the demand-side linkages of illicit and informal activity within the broader economy.

The **upward trend observed** in sectors such as tobacco (R288 million in 2018 to close to R5.5 billion in 2022) and alcohol[67] (R41.1 billion in 2018 to R56 billion in 2022) over the period **reflects increasing penetration and demand of such products in informal and illicit markets.**

66 According to the 2022 SUT Domestic services (CPC 980), accounts for R67.7 billion of the "Informal, illicit, non-profit, and households" sector that are used by households. This is mainly services rendered by domestic workers and household employees, including for example cleaning and housekeeping, gardening and childcare services.

67 According to Stats SA it is not known how much of the alcoholic beverages is used for own consumption, or how much is resold.

Table 93: Intermediate use (demand) by 'Informal, illicit, non-profit, and households' (R millions)

	2018	2019	2020	2021	2022	Use as % of total output at purchasers' prices in 2022
Agriculture	8 336.5	8 352.5	9 874.4	11 407.1	12 870.8	2.5%
Mining	859.1	929.6	846.3	922.8	1 061.7	0.1%
Manufacturing	236 631.9	249 098.4	228 903.4	245 671.0	274 209.8	4.0%
Food	23 642.1	25 440.7	24 630.6	24 812.7	29 504.7	3.1%
Alcohol beverages	41 138.8	45 804.9	46 145.2	47 737.0	56 015.0	24.2%
Soft drinks	3 704.0	3 811.4	4 628.7	4 852.3	4 013.4	4.8%
Tobacco products	288.3	271.4	1 393.1	3 458.0	5 481.4	11.8%
Clothing & textiles	18 306.3	19 415.7	20 724.8	19 599.0	27 171.7	7.2%
Petroleum oils	48 411.7	47 480.0	39 113.5	45 886.5	46 269.3	7.2%
Pharmaceutical	252.6	285.6	335.8	108.5	496.6	0.3%
Soap, perfumes	6 495.6	6 835.1	6 625.5	6 180.7	6 505.4	6.9%
Basic chemicals & Other chemicals	6 675.0	6 562.7	5 738.8	6 867.0	6 946.8	1.8%
Other manufacturing	87 717.5	93 190.9	79 567.3	86 169.3	91 805.4	2.4%
Electricity and gas	3 663.7	3 887.9	2 952.8	3 458.6	4 092.1	0.9%
Construction	729.2	656.3	476.5	474.4	447.7	0.1%
Retail, wholesale, catering & accommodation	143.1	165.4	286.9	279.5	399.7	0.1%
Transport & communication	9 006.3	9 511.9	7 035.5	8 160.4	8 092.9	0.8%
Finance & business service	26 302.4	27 026.6	22 843.6	26 719.8	22 305.5	0.7%
General government	2 093.8	2 361.8	1 245.3	1 326.7	2 401.0	0.3%
Community and other services	2 827.4	3 384.9	3 053.1	4 166.3	4 566.6	0.3%
Total	**290 593.5**	**305 375.3**	**277 517.8**	**302 586.7**	**330 447.9**	**2.1%**

Source: 2022 SUT (Stats SA), own estimates.

2. Supply-side Contribution of the NOE

The table below captures the **supply-side contribution of the informal and illicit sector to the economy**, measured as intermediate supply of goods and services.

The results indicate that this sector **contributes meaningfully to total supply at basic prices in several key product** categories as measured by Stats SA. This includes tobacco products (27.8%), alcoholic beverages (14.9%), clothing and textiles (13.2%), and construction (15.7%), which exhibit particularly high shares of supply originating from informal or illicit sources.

According to the data, mining contributes a relatively small share of 0.3%, although still meaningful in rand terms at close to R2.2 billion in 2022.

Although it can be concluded that the supply in sectors like construction, transport and community services plays a **significant role as informal activities** in the informal economy, activities in **highly regulated sectors are of particular concern**.

This concern is not only worrying from a **tax point of view, like tobacco products and alcoholic beverages (which is a clear indication of illicit activities), but also in terms of quality or standards of products, for example, in the case of food or pharmaceutical products**.

Table 94: Intermediate supply of products by 'Informal, illicit, non-profit, and households' (R millions)

	2018	2019	2020	2021	2022	Supply as % of total output at basic prices in 2022
Agriculture	19 827.2	22 325.9	26 920.7	29 687.5	36 073.6	7.9%
Mining	2 514.2	2 680.4	1 317.0	1 982.2	2 197.0	0.3%
Manufacturing	152 499.9	161 331.0	146 086.7	165 138.4	176 458.5	3.3%
Food	24 061.8	25 757.2	23 305.0	26 580.0	29 702.2	4.2%
Alcohol beverages	12 988.2	13 742.2	14 211.3	16 663.5	18 647.3	14.9%
Soft drinks	3 660.3	4 101.2	2 365.2	2 437.7	5 322.1	9.9%
Tobacco products	6 189.6	6 482.5	7 309.4	8 666.8	9 661.2	27.8%
Clothing & textiles	37 403.2	38 271.6	30 851.9	38 563.1	29 650.8	13.2%
Pharmaceutical	1 049.8	1 079.7	1 164.7	1 289.4	1 344.3	1.4%
Soap, perfumes	1 825.9	1 954.5	1 768.5	2 017.0	2 253.9	3.7%
Basic chemicals, fertilisers and pesticides and Chemicals n.e.c.	1 198.3	1 282.8	1 160.6	1 323.7	1 479.2	0.4%
Other manufacturing	64 122.8	68 659.5	63 950.1	67 597.1	78 397.4	2.4%
Electricity and gas	-	-	-	-	-	0.0%
Construction	75 614.7	75 332.1	66 089.5	69 065.6	72 511.3	15.7%
Retail, wholesale, catering & accommodation	121 502.2	130 179.8	121 518.0	125 449.8	140 778.3	10.4%
Transport & communication	107 878.5	112 134.4	92 567.0	105 094.1	114 321.9	10.2%
Finance & business service	28 751.7	30 899.4	30 485.8	34 582.4	32 561.9	1.1%
General government	-	-	-	-	-	0.0%
Community and other services	175 120.2	183 063.6	181 288.5	191 179.8	198 583.7	14.6%
Total	**683 708.6**	**717 946.7**	**666 273.2**	**722 179.7**	**773 486.3**	**5.1%**

Source: 2022 SUT (Stats SA), own estimates, n.e.c. stands for Not Elsewhere Classified

Key insight

Sectors characterised by high product taxation, strong consumer demand and, in some cases, significant import penetration/dependence tend to exhibit greater exposure to informal and illicit activity.

The Supply and Use Table (SUT) framework provides a robust analytical basis for identifying and quantifying these structural linkages across the economy and forms an important input into the estimation of the economic impacts of illicit trade.

AN ESTIMATION OF THE AGGREGATE IMPACT OF ILLICIT ACTIVITIES

Pricing distortions in illicit trade and implications for economic measurement

Although data on illicit trade activities are difficult to obtain and the quality of the data on it is difficult to verify, illicit trade further introduces a fundamental pricing distortion that complicates the measurement of its economic impacts. By definition, illicit goods are typically **sold at prices below formal market prices**, as they **avoid product taxes (such as VAT and excise duties), regulatory compliance costs, and, in some cases, quality assurance standards**.

As a result, the prices observed in official data sources, including those compiled by Stats SA in the SUT, reflect lower effective transaction values where illicit products have penetrated the market. This leads to an **understatement of the true economic value** of the affected sectors when measured in monetary terms, as output, consumption, and tax bases are all suppressed. If these goods were instead traded within the formal economy at prevailing market prices–including all applicable taxes and margins–the associated contribution to GDP, household expenditure, and government revenue would be significantly higher.

It is therefore a common approach to estimate the "full" economic impact of illicit trade by **adjusting illicit transactions to their equivalent legal market prices**. This effectively assumes that **all applicable taxes and costs would have been paid**. This approach provides an upper-bound estimate of lost economic activity and fiscal revenue and is useful in illustrating the scale of the problem.

However, this perspective should be interpreted with caution. In practice, **price elasticity of demand** implies that higher prices would lead to some reduction in consumption. If illicit goods were replaced entirely by higher-priced legal alternatives, total demand would likely contract, meaning that the realised increase in economic activity and tax revenue would be lower.

Accordingly, the 'actual' economic impact of illicit trade lies between the two methods (i.e. the usage of, for example, SUT data from Stats SA for applicable sectors that understate the value of transactions due to lower prices; and on the other side, a full-compliance scenario that may overstate the outcome by assuming unchanged demand while prices are higher).

While this analysis adopts the latter approach (as far as possible) to provide an indication of the potential scale of losses, particularly in terms of lost tax revenue, it is important to recognise that the actual adjustment would be moderated by behavioural responses in consumption.

Key insight

Illicit trade suppresses the measured value of economic activity by shifting transactions outside the formal tax and regulatory framework.

Expressing illicit transactions at **equivalent legal market prices provides** a more realistic indication of the potential economic and fiscal losses, while recognising that actual impacts are moderated by consumer price responses.

Direct economic impact of the selected sectors

Table 95 presents an estimate of the **direct economic contribution** of the selected sectors included in this study, in terms of key variables like total output at purchasers' prices, output at basic prices, and gross value added (GVA), adjusted to reflect **2024 price levels** (the latest available 2022 SUT tables have been scaled up to reflect the 2024 nominal GDP value).

The table highlights the relative size and importance of each sector within the broader economy. These results are before any adjustments are made for illicit or informal activity.

The results highlight the relative economic importance of the selected sectors, particularly manufacturing-related industries such as food, clothing and textiles, petroleum products, and pharmaceuticals.

The distinction between purchasers' prices and basic prices reflects the combined impact of product taxes and transaction costs, while the GVA figures indicate the extent to which each sector contributes directly to economic production. This table serves as the baseline against which subsequent adjustments for illicit activity are assessed.

These results, together with the percentage impact in Table 96 (which shows the share in terms of the respective variables to SA totals), indicate that although the twelve selected sectors have a direct share of **'only' 14.3% of total SA GVA** (of close to R945bn), they **contribute 42.4% of the total SA sales taxes** (over R316bn).

The **share of household consumption is also disproportionately large, at 31%** (R1.47 trillion) compared to, for example, the GDP contribution or share of total output at basic prices (20%).

The GVA estimates further indicate differences in value-added intensity across sectors, with some industries contributing more directly to GDP than others. Overall, the table provides a baseline against which the impact of illicit activity in terms of the twelve sectors can be assessed.

Table 95: Direct economic impact of selected sectors, adjusted to 2024 prices (R millions)

	Total product output at market prices *(also includes transport, trade margins and sales taxes)*	Trade & transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Private sector Consumption expenditure	Imports	Direct GVA[68]
Mining	993 372	46 711	1 270 595	7 475	498	32 771	1 472	190 207	530 620
Food	1 039 125	206 302	537 062	2 965	48 792	6 258	582 173	120 678	119 116
Non-Alcoholic Beverages	92 409	19 109	41 529	371	8 091	1 311	66 762	3 639	17 119
Alcohol beverages	255 562	52 847	114 851	1 026	71 020	1 479	152 572	10 063	47 343
Tobacco	51 043	-14 912	20 288	45	27 656	238	44 847	4 157	13 285
Apparel	418 188	125 378	99 031	415	45 960	1 043	249 723	105 160	30 739
Pharmaceutical products	170 725	49 498	109 577	1 005	11 650	3 180	95 976	62 965	31 981
Soap, cleaning & polishing preparations, perfumes & toilet preparations	103 523	29 254	67 352	618	6 917	1 955	57 023	16 340	19 657

68 The GVA excludes net taxes on products.

	Total product output at market prices *(also includes transport, trade margins and sales taxes)*	Trade & transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Private sector Consumption expenditure	Imports	Direct GVA[68]
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	425 822	36 782	386 502	2 637	2 538	8 462	4 891	121 441	83 202
Toys and games	8 850	2 832	4 956	37	1 063	193	8 850	5 098	1 325
Automotive fuel	312 300	37 476	188 942	1 654	85 883	1 491	130 635		24 171
Gambling	74 498		68 686	2 717	5 812	1 851	79 538		27 386
Total selected sectors	**3 945 417**	**591 276**	**2 909 370**	**20 966**	**315 880**	**60 232**	**1 474 461**	**639 748**	**945 942**
Total SA	**18 807 674**	**1 262 375**	**14 490 508**	**129 085**	**745 556**	**655 609**	**4 752 671**	**2 437 642**	**6 625 579**

Source: SUT 2022, adjusted, own calculation. Not all the sectors are included in the SUT, and estimations were made in some cases. For gambling, "Sporting and other recreational activities" (CPC 964), together with data for the GGR from the 2024/25 National Gambling Board Annual Report[69] and data from Stats SA for consumption of gambling[70]. The 'Basic chemicals, fertilisers and pesticides' and 'Chemicals n.e.c'.includes CPC 341-8 and CPC 354-5; total output is derived by subtracting trade and transport margins and sales taxes from total output at market prices. Activity tax was estimated based on the relative share of 'Other chemicals' (SIC 3351-3354/9).

The Automotive fuel (SIC 6350) focuses on fuel retail and excludes refineries and other petroleum oil manufacturing. The toys and games industry is approximated by 30% of the 'Other manufacturing' sectors based on the size of consumption expenditure; the data was further adjusted to align with other sources of information. If using the fixed structure of 'Other manufacturing' alone without adjustments, it provides a total output at market prices of R24.6 billion, and imports of R1.5 billion, which seems unreasonable. Especially given the annual toys and games market estimate of IMARC (2024) of R8.7bn, and the value of domestic Manufacturing turnover of games and toys (SIC 3924) (according to the 2024 AFS data from Stats SA) is R1 billion. Furthermore, import data for "Toys, games and sports requisites; parts and accessories thereof" for 2024, according to SARS (HS95), is R7.9 billion. However, this also includes "Articles and equipment for general physical exercise, gymnastics, athletics, other sports" that is classified according to Stats SA as part of "Equipment for sport, camping and open-air recreation". If the sporting equipment is excluded from the SARS import data, the 2024 amount decreases to R5.1 billion. The fuel tax data (for automotive fuel) is added to the table from the automotive fuel levy in SARS tax statistics, Revenue collection data (Chapter 1), given that sales taxes for the total petroleum fuel in SA are R141.6 billion from the adjusted SUT. This amount of R86 billion was roughly R10 billion lower compared to the NT Budgeted amount. The unadjusted automotive fuel sector is only at basic prices, which excludes excise taxes and levies. The Total output at market prices for automotive fuel was calculated based on the average fuel tax burden and the trade and transport margins, and output at basic prices has been adjusted accordingly. The household consumption is the 2024 SARB figure. Note that the impact and contribution of the Tobacco industry would be larger if it weren't for the negative Trade and transport margin calculated by Stats SA.

Table 96: Direct economic impact of selected sectors, adjusted to 2024 prices (%)

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Private sector Consumption expenditure	Imports	Direct GVA
Mining	5.28%	3.70%	8.77%	5.79%	0.07%	5.00%	0.03%	7.80%	8.01%
Food	5.53%	16.34%	3.71%	2.30%	6.54%	0.95%	12.25%	4.95%	1.80%
Non-Alcoholic Beverages	0.49%	1.51%	0.29%	0.29%	1.09%	0.20%	1.40%	0.15%	0.26%
Alcohol beverages	1.36%	4.19%	0.79%	0.79%	9.53%	0.23%	3.21%	0.41%	0.71%
Tobacco	0.27%	-1.18%	0.14%	0.03%	3.71%	0.04%	0.94%	0.17%	0.20%
Apparel	2.22%	9.93%	0.68%	0.32%	6.16%	0.16%	5.25%	4.31%	0.46%

[69] *https://www.thedtic.gov.za/wp-content/uploads/NGB-Annual-report-24-25.pdf*

[70] *Appetite for gambling and betting grows | Statistics South Africa*

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Private sector Consumption expenditure	Imports	Direct GVA
Pharmaceutical products	0.91%	3.92%	0.76%	0.78%	1.56%	0.49%	2.02%	2.58%	0.48%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	0.55%	2.32%	0.46%	0.48%	0.93%	0.30%	1.20%	0.67%	0.30%
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	2.26%	2.91%	2.67%	2.04%	0.34%	1.29%	0.10%	4.98%	1.26%
Toys and games	0.05%	0.22%	0.03%	0.03%	0.14%	0.03%	0.19%	0.21%	0.02%
Automotive fuel	1.66%	2.97%	1.30%	1.28%	11.52%	0.23%	2.75%	0.00%	0.36%
Gambling	0.40%	0.00%	0.47%	2.10%	0.78%	0.28%	1.67%	0.00%	0.41%
Percentage of total SA	**20.98%**	**46.84%**	**20.08%**	**16.24%**	**42.37%**	**9.19%**	**31.02%**	**26.24%**	**14.28%**

Source: SUT 2022, adjusted, own calculations

Key insight

Although the selected sectors account for approximately 14% of South Africa's direct GVA, they generate 42% of total sales taxes, account for almost 31% of household consumption expenditure, and contribute significantly to manufacturing output and imports.

Their strategic economic importance means that illicit trade within these sectors has disproportionately large implications for GDP, employment and government revenue.

3. Employment Contribution of the Selected Sectors

Table 97 presents the total employment associated with the selected sectors, while Table 98 shows the figures as a percentage of the total employed. The results indicate that the selected sectors **directly support over 1.1 million formal** sector jobs (12% of total formal sector jobs) and account for 11.4% of the compensation of employees. This highlights the broader direct socio-economic importance of these sectors, apart from their direct contribution to output and value added.

The tables also include the appliance SIC and CPC classification codes that were used for the information included in **Table 95** to **Table 98**. As indicated in earlier tables, the information is a combination of industry results and product results.

Table 97: Total (direct) Employment (formal and informal) and compensation of employees of selected sectors (2024)

	SIC	CPC	Employment cost (R million)	Employment: Derived formal	Employment: Derived informal	Total Employment
Mining	2	110-120,141-163	184 177	444 441	15 571	**460 012**
Food	301-304	211 -239	57 498	251 104	59 238	**310 342**
Non-Alcoholic Beverages	NA	244	9 234	30 096	2 831	**32 927**
Alcohol beverages	NA	241-243	10 413	33 938	7 828	**41 766**
Tobacco	3 060	250	1 677	5 465	992	**6457**
Apparel	31	261-296	15 501	101 377	108 906	**210 283**
Pharmaceutical products	NA	352	17 879	43 166	2 371	**45 537**
Soap, cleaning and polishing preparations, perfumes and toilet preparations	NA	353	10 989	26 532	1 457	**27 989**
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	3351-3354/9	341-8, 354-5	46 709	109 953	3 147	**113 100**
Toys and games	3921-4/9	P56	1 931	8 982	2 063	**11 045**
Automotive fuel	6 350	NA	12 623	49 477	12 020	**61 497**
Gambling	NA	964	10 591	33 169[71]	9 073	**42 242**
Total mentioned sectors			**379 221**	**1 137 699**	**225 498**	1 363 196
Total SA			**3 323 944**	**9 473 236**	**5 137 090**	**14 610 326**

Source: SUT 2022, adjusted, QLFS, LMD, QES own calculations. Total SA formal employment includes formal domestic employment of over 230 000

Table 98: Employment share of selected sectors relative to total SA employment

	SIC	CPC	Employment cost	Employment: Derived formal	Employment: Derived informal
Mining	2	110-120,141-163	5.54%	4.69%	0.30%
Food	301-304	211 -239	1.73%	2.65%	1.15%
Non-Alcoholic Beverages	NA	244	0.28%	0.32%	0.06%
Alcohol beverages	NA	241-243	0.31%	0.36%	0.15%

[71] *The gambling employment data is from the 2024/25 National Gambling Board Annual report.*

	SIC	CPC	Employment cost	Employment: Derived formal	Employment: Derived informal
Tobacco	3 060	250	0.05%	0.06%	0.02%
Apparel	31	261-296	0.47%	1.07%	2.12%
Pharmaceutical products	NA	352	0.54%	0.46%	0.05%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	NA	353	0.33%	0.28%	0.03%
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	3351-3354/9	341-8, 354-5	1.41%	1.16%	0.06%
Toys and games	NA	NA	0.06%	0.09%	0.04%
Automotive fuel	6 350	NA	0.38%	0.52%	0.23%
Gambling	NA	964	0.32%	0.35%	0.13%
Percentage of total SA			**11.41%**	**12.01%**	**4.39%**

Source: SUT 2022, adjusted, own calculations

Key insight

The selected sectors directly support approximately 1.4 million jobs, including more than 1.1 million formal-sector jobs, representing around 12% of formal employment in South Africa.

Beyond their contribution to GDP and tax revenue, these sectors are therefore important sources of formal employment and household income, meaning that illicit trade carries significant labour market and socio-economic consequences.

1. Isolating the formal sector and illicit activity

In the absence of detailed price information to separate formal and illicit markets (as well as non-profit and households), **estimations are made to split the data**. The table below shows the adjusted results by **isolating the 'formal sector' using the data shown in** Table 95**, by removing the contribution associated with the non-formal supply (informal, illicit, non-profit and households' supply**).

The analysis uses aggregate ratios derived from the SUT to approximate the underlying economic structure of illicit and informal activity.

Trade and transport margins are estimated using observed ratios of transaction costs to total output, and it is assumed that illicit activities do not contribute to product tax revenues.

Gross value added for the 'Informal, illicit, non-profit, and households' is derived using sectoral relationships between output at basic prices and value added. Given the assumption that illicit market participants largely avoid indirect taxes, output at basic-price equivalent values was approximated by removing estimated trade and transport margins from purchasers' prices[72].

This approach ensures internal consistency within the SAM framework. This provides a more accurate representation of formal sector activity and establishes a foundation for assessing the potential impact of illicit trade on the economy.

Table 99: 'Formal' direct economic impact, adjusted for 'informal, illicit, non-profit and households' supply; 2024 adjusted (R million)

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Household Consumption	Imports	Direct GVA
Mining	990 949	46 597	1 270 481	7 475	498	32 771	1 472	190 207	529 656
Food	1 006 367	199 798	530 559	2 965	48 792	6 258	582 173	120 678	113 293
Non-Alcoholic Beverages	86 539	17 895	40 315	371	8 091	1 311	66 762	3 639	15 199
Alcohol beverages	234 996	48 594	110 598	1 026	71 020[73]	1 479	152 572	10 063	40 618
Tobacco	40 388	-11 799	23 401	45	27 656[74]	238	44 847	4 157	4 269
Apparel	385 487	115 574	89 227	415	45 960	1 043	249 723	105 160	23 631
Pharmaceutical products	169 242	49 068	109 147	1 005	11 650	3 180	95 976	62 965	31 674
Soap, cleaning & polishing preparations,	101 037	28 552	66 649	618	6 917	1 955	57 023	16 340	19 137

72 While illicit trade and transport margins may differ from formal-sector margins, not information is available on this and the relative ratios in the SUT was applied.
73 This R71 billion in sales tax would imply a tax burden on 30.2%, this is relative in-line given an effective tax burden on Beer of between 20-25%, Wine of 15-20%, Ready-to-drink (RDT) of 25-35% and spirits of 40-50% that results in an aggregate tax burden of between 25% to 35%.
74 The minimum collectable tax on cigarettes in 2024/25 amounted to approximately R25.05 per pack of 20 cigarettes (R21.78 excise tax plus R3.27 VAT on the excise), but the total tax burden will be higher once VAT on the final retail selling price is included. Based on estimated average legal retail prices of around R40–R45 per pack, a total tax likely amounted to approximately R27–R28 per pack. This implies a tax percentage of between 67.5% (if R40 per pack) and 61.4% (if at R45 per pack). The implied tax ratio for this data is inline with this at 68.5%.

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Household Consumption	Imports	Direct GVA
perfumes & toilet preparations									
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	424 190	36 641	386 361	2 637	2 538	8 462	4 891	121 441	82 881
Toys and games	7 394	2 366	3 965	37	1 063	193	8 850	5 098	1 060
Automotive fuel	312 300	37 476	188 942	1 654	85 883	1 491	153 187		24 171
Gambling	74 498	-	68 686	2 717	5 812	1 851	79 538		27 386
Total selected sectors	**3 833 388**	**574 487**	**2 885 743**	**20 966**	**315 880**	**60 232**	**1 497 014**	**639 748**	**912 976**
Total SA	**18 807 674**	**1 262 375**	**14 490 508**	**129 085**	**745 556**	**655 609**	**4 752 671**	**2 437 642**	**6 625 579**

Source: SUT 2022, adjusted, own calculations

Table **100** presents estimates of the size of the 'Informal, illicit, non-profit, and households' within the selected twelve sectors, based on the 2024 adjusted Stats SA SUT. In other words, this table shows the portion that is subtracted from the information in Table 95 to get to the estimate of the formal sectors in Table 99. Stats SA doesn't include any informal activity for Automotive fuel and doesn't include gambling-specific estimations.

Table 100: Estimated 'Informal, illicit, non-profit, and households' direct macroeconomic impact 2024 adjusted (R million)

	Stats SA Intermediate supply of products by 'Informal, illicit, non-profit, and households'	Trade and transport margins	Total production output at basic prices	Direct GVA
Mining	2 423	114	2 309	964
Food	32 758	6 504	26 254	5 823
Non-Alcoholic Beverages	5 870	1 214	4 656	1 919
Alcohol beverages	20 566	4 253	16 313	6 724
Tobacco	10 655	- 3 113	13 768	9 015
Apparel	32 701	9 804	22 897	7 107
Pharmaceutical products	1 483	430	1 053	307
Soap, cleaning and polishing preparations, perfumes and toilet preparations	2 486	702	1 783	520
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	1 631	141	1 491	321
Toys and games	1 456	275	1 181	316
Automotive fuel	0	0	0	0
Gambling	Unknown			
Total selected sectors	**110 398**	**20 183**	**90 215**	**32 697**

Source: SUT 2022, adjusted, own calculations

Key insight. Before estimating the economic impact of illicit trade, the observed Supply and Use Table (SUT) data are adjusted to isolate formal sector activity. This establishes a **consistent baseline** against which the estimated scale and economic consequences of illicit trade can be assessed.

2. Estimated Direct Economic Impact of Illicit Trade

The results in **Table 101** and **Table 102** translate the estimated illicit market values into a broader macroeconomy using the illicit estimates and ratios relative to total output from the 2024 adjusted SUT.

The results include estimates of impacts on total product output, production at basic prices, trade and transport margins, gross value added (GVA), imports, household consumption, and tax revenue if these activities were instead captured within the formal economy at comparable market prices. **The tables therefore provide an estimate of the potential direct economic footprint associated with illicit trade across the selected sectors in 2024.**

The results indicate that the reduction and elimination of illicit activity could have substantial implications for economic output and especially fiscal revenue (Table 20). Sectors such as alcohol, tobacco, apparel and automotive fuel exhibit particularly large potential gains in sales taxes.

The estimates presented in this table should be interpreted as indicative rather than precise, given the significant degree of uncertainty with respect to the problem of illicit activity.

The calculations effectively represent a scenario in which illicit transactions are replaced by fully tax-compliant formal market activity at prevailing market prices. In practice, some reduction in demand would likely occur as prices increase due to the inclusion of taxes and compliance costs. The total **revenue loss is estimated at R67.8 billion**, of which sales taxes account for the largest share.

The gambling sector should especially be interpreted with caution, as a substantial share of illicit gambling activity may occur through offshore digital platforms. If gambling expenditure accrues to foreign operators rather than domestic operators, the associated domestic GVA (and other domestic economic impacts) may be overstated when calculating the impacts based on the structure of the SUT.

However, the estimates provide a useful indication of the potential scale of economic activity and fiscal revenue currently displaced by illicit trade. An **implied estimated direct GDP loss of R126 billion (or 1.7%)** can be calculated by adding the direct GVA (R65.6 billion) plus taxes (minus subsidies) on products (R60.8 billion).

Table 101: Estimated economic impact of Illicit activity if measured at formal market prices (R millions)

	Total product output at market prices *(also includes transport, trade margins and sales taxes)*	Trade and transport margins	Total production output at basic prices	Total taxes	Household Consumption	Imports	Direct GVA
Mining	46 799	2 201	**60 000**	1 925	70	8 983	25 014
Food	**26 000**	5 162	13 707	1 500	15 041	3 118	2 927
Non-Alcoholic Beverages	**2 500**	517	1 165	283	1 929	105	439
Alcohol beverages	39 841	8 239	18 751	16 925	25 867	1 076	6 886
Tobacco	45 418	-13 269	22 815	31 419	50 432	4 674	4 801
Apparel	**20 400**	6 116	4 722	2 509	13 215	5 565	1 251
Pharmaceutical products	**4 300**	1 247	2 773	403	2 438	1 600	805
Soap, cleaning and polishing preparations, perfumes and toilet preparations	**2 300**	650	1 517	215	1 298	372	436

	Total product output at market prices *(also includes transport, trade margins and sales taxes)*	Trade and transport margins	Total production output at basic prices	Total taxes	Household Consumption	Imports	Direct GVA
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	**6 800**	587	6 194	219	78	1 947	1 329
Toys and games	**1 900**	608	1 154	333	2 274	1 310	272
Automotive fuel	15 273	1 833	9 240	4 354	7 491	-	1 182
Gambling	**55 100**	-	50 801	7 678	58 827	-	20 255
Total selected sectors	**266 630**	**13 890**	**192 839**	**67 758**	**178 961**	**29 380**	65 596

Note: Values highlighted in blue are the reference values of illicit activities from studies or own calculations (Table 111. For alcoholic beverage sales taxes, R15.6bn was used as the reference value; for Tobacco sales taxes worth R31.1bn was used; and for Automotive fuel sales taxes worth R4.2bn was used.

The table below shows the breakdown of the tax component.

Table 102: Estimated lost tax impact of Illicit activity if measured at formal market prices (R millions)

	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated personal income tax	Total Tax
Mining	353	24	1 548	**1 925**
Food	77	1 261	162	**1 500**
Non-Alcoholic Beverages	11	234	38	**283**
Alcohol beverages	174	**16 500**	251	**16 925**
Tobacco	51	**31 100**[75]	268	**31 419**
Apparel	22	2 432	55	**2 509**
Pharmaceutical products	26	296	81	**403**
Soap, cleaning and polishing preparations, perfumes & toilet preparations	14	157	44	**215**
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	42	41	136	**219**
Toys and games	10	273	50	**333**
Automotive fuel	81	**4 200**	73	**4 354**
Gambling	2 010	4 299	1 369	**7 678**
Total mentioned sectors	**2 869**	**60 816**	**4 073**	**67 758**

Key insight. Expressing **illicit transactions at equivalent formal market prices** indicates that illicit trade displaces substantial formal economic activity and government revenue. The analysis estimates direct tax losses of approximately R68 billion, with products subject to high excise duties–particularly tobacco, alcohol and fuel–accounting for the largest share of the fiscal impact.

[75] *According to OE Africa the duty not paid (DNP) share of cigarettes increased to 85.9% in 2024, or 23.9 billion sticks compared to 12.2 billion duty paid sticks. Putting this into context, the minimum threshold tax was R25.05 in 2024 (R21.78 Excise and R3.27 VAT on the excise). A Price of R40 per pack of 20, would imply a VAT of R5.22, and a total tax of R27. If tax was paid on 23.9 billion sticks (or 1.195 billion 20 packs of cigarettes), it would result in R32.26 billion in additional tax revenue. Revenue of R31.1 billion, as included from the Oxford Economic study, will imply an average cost of R32.54 per packet of 20. This will imply a tax burden of 80% that is significantly higher compared to the implied tax burden in Table 99.*

3. Estimated Illicit Penetration of the Selected Sectors

The results in **Table 103** show the estimated percentage impact of illicit activity relative to the adjusted 'formal' market size for the selected sectors (with the illicit activity expressed at comparable formal market prices).

The results indicate substantial variation in illicit penetration across sectors. Tobacco products exhibit the highest estimated illicit share, reflecting the exceptionally high excise tax burden and the large price differential between legal and illicit cigarettes. Alcoholic beverages also show a relatively high illicit share.

Sectors such as apparel, pharmaceuticals, personal care products, and fuel exhibit lower, but still significant, estimated illicit shares.

The table highlights that illicit activity accounts for a material share of the estimated formal activity within the twelve sectors analysed, effectively 19.3% of sales tax, 13.7% of activity tax, 12% of household consumption and 7.2% of total 'formal' output at market prices.

Table 103: Illicit percentage share of the estimated 'formal' sector size

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Household Consumption	Imports	Direct GVA
Mining	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
Food	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Non-Alcoholic Beverages	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Alcohol beverages	17.0%	17.0%	17.0%	17.0%	23.2%	17.0%	17.0%	17.0%	17.0%
Tobacco	112.5%	112.5%	112.5%	112.5%	112.5%	112.5%	112.5%	112.5%	112.5%
Apparel	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
Pharmaceutical products	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Soap, cleaning & polishing preparations, perfumes & toilet preparations	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**
Toys and games	25.7%	25.7%	25.7%	25.7%	25.7%	25.7%	25.7%	25.7%	25.7%
Automotive fuel	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%		4.9%
Gambling	74.0%		74.0%	74.0%	74.0%	74.0%	74.0%		74.0%
Total selected sectors	**7.0%**	**2.4%**	**6.7%**	**13.7%**	**19.3%**	**6.8%**	**12.0%**	**4.6%**	**7.2%**

The table below presents similar percentages to Table 103, but expresses the estimated size of illicit economic activity relative to the combined adjusted market size for the selected sectors, where both 'formal' and estimated illicit activity are expressed at comparable formal market prices. The table, therefore, shows the extent to which illicit trade may account for total effective market activity within each sector.

The results indicate substantial variation in illicit penetration across sectors. Tobacco products exhibit the highest estimated illicit share, reflecting the exceptionally high excise tax burden and the large price differential between legal and illicit cigarettes. Alcoholic beverages also show a relatively high illicit share.

Sectors such as apparel, pharmaceuticals, personal care products, and fuel exhibit lower, but still significant, estimated illicit shares. The table highlights that illicit activity accounts for a material component of effective market activity within the twelve sectors analysed, effectively 16.1% of sales tax, 10.7% of household consumption and 6.5% of total output at market prices[76].

Table 104: Percentage impact of the Illicit economy, as a percentage of the adjusted 'Formal and illicit' sectors (2024 formal sector prices)

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Household Consumption	Imports	Direct GVA
Mining	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Food	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Non-Alcoholic Beverages	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Alcohol beverages	14.5%	14.5%	14.5%	14.5%	18.9%	14.5%	14.5%	14.5%	14.5%
Tobacco	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%
Apparel	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Pharmaceutical products	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Toys and games	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%	20.4%
Automotive fuel	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%		4.7%
Gambling	42.5%		42.5%	42.5%	42.5%	42.5%	42.5%		42.5%
Total selected sectors	**6.5%**	**2.4%**	**6.3%**	**12.0%**	**16.1%**	**6.3%**	**10.7%**	**4.4%**	**6.7%**

[76] *The table expresses illicit activity relative to the adjusted "formal and illicit" market size rather than relative only to recorded formal activity. The percentages should be interpreted as estimated shares of total effective market activity within each sector. This method avoids overstating the implied size of illicit trade by recognising that a portion of observed market activity already reflects illicit transactions captured, directly or indirectly, within official economic statistics. The estimates therefore provide a more balanced indication of the relative scale of illicit trade within each sector under formal-equivalent pricing assumptions.*

Table 105 places the estimated illicit economy within the context of the broader South African economy by expressing illicit activity as a percentage of the total 2024-adjusted SUT values at formal market prices. Whereas **Table 104** focused on the relative importance of illicit activity when compared to the estimated formal and illicit markets, Table 105 illustrates the estimated illicit economy relative to the economy, including the Stats SA estimates of unobserved data ('Informal, illicit, non-profit, and households').

The percentages are larger compared to those in **Table 104** because it compares the estimated illicit market (at comparable market prices) with Stats SA data that includes informal and illicit activities at discounted prices. Tobacco products display one of the highest illicit penetration rates within the sector itself. Sectors such as gambling and alcoholic beverages also exhibit very high shares.

Other sectors, such as mining, apparel, food, toys and games, may exhibit lower estimated illicit penetration rates, but it still accounts for substantial economic impact.

The table provides an important perspective regarding the macroeconomic impacts of illicit trade.

The results also highlight the significant fiscal implications of illicit trade relative to the overall economy. Products subject to high excise duties, such as tobacco and alcohol, contribute disproportionately to government revenue. Consequently, even relatively small changes in illicit market penetration within these sectors may have material implications for tax collection.

Table 105: Percentage impact of the Illicit economy, as a percentage of the Stats SA 2024 adjusted SUT (2024 formal sector prices)

	Total product output at market prices (also includes transport, trade margins and sales taxes)	Trade and transport margins	Total production output at basic prices	Activity taxes (i.e., taxes on production less subsidies on production)	Sales taxes (i.e., taxes on products less subsidies on products)	Estimated PIT (Rm)	Household Consumption	Imports	Direct GVA
Mining	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	**4.7%**
Food	2.5%	2.5%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	**2.5%**
Non-Alcoholic Beverages	2.7%	2.7%	2.8%	2.9%	2.9%	2.9%	2.9%	2.9%	**2.6%**
Alcohol beverages	15.6%	15.6%	16.3%	17.0%	23.2%	17.0%	17.0%	17.0%	**14.5%**
Tobacco	89.0%	89.0%	112.5%	112.5%	112.5%	112.5%	112.5%	112.5%	**36.1%**
Apparel	4.9%	4.9%	4.8%	5.3%	5.3%	5.3%	5.3%	5.3%	**4.1%**
Pharmaceutical products	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	**2.5%**
Soap, cleaning and polishing preparations, perfumes & toilet preparations	2.2%	2.2%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	**2.2%**
Basic chemicals, fertilisers & pesticides, Chemicals n.e.c.	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	**1.6%**
Toys and games	21.5%	21.5%	23.3%	25.7%	25.7%	25.7%	25.7%	25.7%	**20.6%**
Automotive fuel	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%		**4.9%**
Gambling	74.0%		74.0%	74.0%	74.0%	74.0%	74.0%		**74.0%**
Total mentioned sectors	**6.8%**	**2.3%**	**6.6%**	**13.7%**	**19.3%**	**6.8%**	**12.1%**	**4.6%**	**6.9%**

Key insight

Illicit penetration varies considerably across sectors, reflecting differences in tax burdens, regulatory requirements and market characteristics.

Tobacco, gambling and alcoholic beverages exhibit the highest estimated levels of illicit activity, while even sectors with lower penetration rates generate substantial cumulative economic and fiscal losses because of their size.

CONCLUSION

This section provided a comprehensive overview of the economic contribution of twelve selected sectors within the South African economy and assessed the potential implications of illicit trade within these sectors. Using a combination of Supply and Use Tables (SUT), Social Accounting Matrix (SAM) modelling, and supplementary sector-specific studies and research, the analysis examined the economy from both an industry (activity-based) and product (commodity-based) perspective.

This dual approach enabled a more detailed understanding of how illicit trade affects not only production and value added, but also product markets, household consumption, employment, imports, and government revenue.

The selected sectors account for a significant share of South Africa's output, value added, employment, household expenditure and government revenue, highlighting their importance to the country's productive economy.

When multiplier effects are included, the sectors account for a significant share of GDP, formal and informal employment, and government revenue, highlighting their broader economy-wide importance. Sectors such as mining, food, alcohol, apparel, and fuel exhibit particularly strong linkages throughout the economy, implying that disruptions associated with illicit trade may have wide-ranging secondary impacts (see Appendix).

The analysis further indicates that illicit trade is especially significant in sectors characterised by high product taxes, complex distribution chains, import dependence, and relatively easy market entry for counterfeit or smuggled goods. Tobacco and alcohol products emerge as particularly vulnerable sectors due to their large excise tax burdens and strong incentives for tax evasion. Apparel, pharmaceuticals, personal care products, and selected mining activities also exhibit notable exposure to illicit and informal activity.

The analysis indicates that illicit trade results in substantial losses in government revenue while simultaneously displacing formal production, employment and investment.

Importantly, the section also highlights the methodological challenges associated with measuring illicit activity and the lack of available research and data. Official economic statistics already capture portions of illicit and informal activity, although often at distorted or underreported prices. The use of adjusted formal market prices therefore provides an indication of the potential upper-bound economic impact associated with illicit trade, while recognising that actual market responses would likely be moderated by behavioural changes and price elasticity of demand.

Despite these limitations, the analysis provides a structured and internally consistent framework for assessing the scale and broader economic implications of illicit trade in South Africa.

Taken together, the methodology provides a transparent, conservative and internally consistent framework for estimating the direct economic impacts of illicit trade across multiple sectors using a common analytical approach. By building upon official national accounts, rather than treating illicit trade as a completely separate economy, and by expressing illicit activity at formal market-equivalent prices, the methodology provides a consistent basis for estimating the displacement of formal GDP, employment and tax revenue across all twelve sectors.

This approach enables the sector-specific estimates presented in the remainder of the report to be compared on a like-for-like basis, while providing a robust evidence base to support policy development, enforcement prioritisation and future research into illicit trade in South Africa.

APPENDIX

SUPPLEMENTARY TABLES AND ADDITIONAL METHODOLOGICAL DETAIL

ECONOMY-WIDE ECONOMIC IMPACT OF SELECTED SECTORS

A Social Accounting Matrix (SAM) Multiplier Analysis (2024), aggregated results

The estimated **economy-wide economic impact of the selected** twelve **sectors** after incorporating indirect and induced effects through a Leontief-based multiplier model is presented in Tables 97-101. The results include the estimated GDP and GVA impacts, as well as the private sector consumption expenditure impact. The values are aligned to the 2024 economic structure (based on the 2022 SUT)[77] shown in the tables above and can also be compared to the direct impact as indicated in **Table 95**. The results, therefore, reflect **not only the direct contribution of each of the** twelve **sectors, but also the broader economy-wide linkages that capture multiplier impacts**.

Importantly, the modelling is undertaken at the product level and at purchasers' prices (and not basic prices), thereby retaining the full economic footprint of each sector, including product taxes and distribution effects. This is important to ensure consistency across sectors and also across the observed size of the economy.

The initial 'impact shocks' were further scaled such that the resulting total output, including multiplier effects, aligns with the recorded 2024 totals per sector. Thereby avoiding any overestimation arising from double-counting of multiplier impacts per sector. This approach effectively redistributes the presented economic activity across direct, indirect, and induced impacts rather than inflating the overall size of the economy.

Given the negative value in the trade-in-transport margins in the Stats SA 2022 SUT in the tobacco industry, which results in nonsensical modelled results (for example, negative employment results across a number of sectors), the economic impact results from the OE Africa[78] study were used in this table. The substitution was limited only to the multiplier estimation for tobacco and does not affect calculations.

The results indicate that the selected sectors, including the multiplier impacts, collectively account for approximately 48.5% of the total GDP of SA, over 38.5% of formal employment, 49% of informal employment, and 53% of government revenue. Although this underscores the substantial economy-wide importance of these sectors when their full value chains and combined multiplier impacts are considered, these aggregate multiplier impacts across **sectors should not be interpreted as additive economy-wide totals. Interlinkages between sectors result in overlap and double-counting of indirect and induced effects.**

Mining accounts for the single largest contributor of these twelve **sectors**, accounting for over **21% of GDP** and a **significant share of government revenue (17.9%) (see Table 109),** reflecting both its scale and its strong upstream and downstream linkages. **The food and apparel sectors also stand out, not only in terms of GDP contribution** (7.7% and 5.0% respectively) **but also in their employment intensity**.

[77] *The 2022 SUT was used, together with National Accounts data from the SARB and employment data from the LMD, QLFS and QES from Stats SA to build the 2024 SAM. The 2022 SUT was scaled to the 2024 GDP values.*
[78] *OE Africa, 2025. The Impact of the Tobacco Industry in South Africa. South Africa Tobacco Transformation Alliance (SATTA)*

Table 106: Key economy-wide economic impacts per sector, GDP, GVA and private sector consumption expenditure (2024, R million)[79]

	Total GDP product impact, including multiplier	Percentage of GDP	GVA impact, including multiplier	Percentage of GVA	Private sector consumption expenditure	Percentage of consumption expenditure
Mining	1 571 029	21.4%	1 416 270	21.9%	1 034 419	22.2%
Food	563 558	7.7%	506 248	7.8%	370 829	8.0%
Non-Alcoholic Beverages	117 877	1.6%	98 268	1.5%	71 857	1.5%
Alcohol beverages	294 211	4.0%	202 994	3.1%	148 295	3.2%
Tobacco	44 700	0.6%				
Apparel	364 118	5.0%	290 791	4.5%	217 740	4.7%
Pharmaceutical products	107 868	1.5%	90 408	1.4%	68 530	1.5%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	136 424	1.9%	111 997	1.7%	84 862	1.8%
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	224 067	3.0%	197 269	3.0%	149 491	3.2%
Toys and games	8 769	0.1%	7 542	0.1%	5 630	0.1%
Automotive fuel	104 712	1.4%	68 513	1.1%	48 783	1.0%
Gambling	97 046	1.3%	83 122	1.3%	60 581	1.3%
Total and share of total[80]	**3 776 007**	**51.4%**	**3 073 423**	**47.4%**	**2 261 017**	**48.5%**

Source: Own calculations. For the tobacco sector GDP, total employment and government revenue, information is used from the OE Africa study "The Impact of the Tobacco Industry in South Africa". The total employment from this study was split between formal and informal using 2024 employment data that was calculated for the SAM. Regarding toys and games, a dedicated sector is not available within the SAM. The analysis uses the "Other manufacturing" commodity as a proxy to estimate the economy-wide multiplier effects. While the direct estimates suggest household expenditure on toys and games amounted to approximately R8.85 billion in 2024, the 'Other manufacturing' sector produces a lower level of household consumption within the SAM. Rather than adjusting the model outputs, these results are interpreted as indicative estimates of the indirect and induced impacts.

The estimated economy-wide labour market impacts are shown in **Table 107**. The results include compensation of employees together with formal and informal employment impacts, thereby illustrating the broader employment footprint supported throughout the economy by each sector's value chain.

Although double-counting is present in the aggregated totals, the results indicate that the selected sectors collectively support more than 4 million formal jobs and approximately 2.4 million informal employment opportunities when multiplier impacts are included. This demonstrates the substantial role played by these sectors in supporting livelihoods and labour income throughout the South African economy. The sectors also account for just under 40% of the total compensation of total employees, underscoring their importance in sustaining household income and consumer spending.

Mining is the dominant contributor in terms of compensation of employees, and the number of jobs, reflecting the importance of the SA economy. The food sector similarly generates substantial employment impacts due to its integration with agriculture, manufacturing, transport, retail, and hospitality-related activities. Apparel also stands out

[79] *This tables includes direct, indirect and induced effects.*
[80] *These figures include double counting given that the multiplier impacts are calculated individually on each sector.*

because of its relatively labour intensity, particularly within lower-skilled and labour-absorbing activities across manufacturing and retail value chains (also see Table 99).

The findings further reinforce the broader socio-economic risks associated with illicit trade. Reductions in formal sector activity may not only lower production and tax revenue, but may also weaken formal employment creation and labour income generation across the economy. While portions of economic activity may continue within informal or illicit supply chains, these activities often exhibit lower productivity, weaker labour protections, and reduced fiscal contributions relative to the formal economy.

Table 107: Economy-wide impacts per sector, compensation of employees and employment (2024)

	Compensation of employees (Rm)	Percentage of compensation	Total formal employment (including formal hh) (number)	Percentage of formal employment	Total informal employment (number)	Percentage of informal employment
Mining	614 973	18.4%	1 638 629	14.7%	802 484	15.6%
Food	221 874	6.6%	956 513	8.6%	570 516	11.1%
Non-Alcoholic Beverages	42 829	1.3%	130 990	1.2%	81 859	1.6%
Alcohol beverages	88 205	2.6%	264 790	2.4%	173 776	3.4%
Tobacco			65 890	1.3%	77 043	1.5%
Apparel	136 483	4.1%	461 627	4.2%	378 685	7.4%
Pharmaceutical products	44 024	1.3%	129 514	1.2%	76 083	1.5%
Soap, cleaning and polishing preparations, perfumes & toilet preparations	54 476	1.6%	164 330	1.5%	100 593	2.0%
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	95984	2.9%	274 727	2.5%	142 659	2.8%
Toys and games	3 506	0.1%	9 107	0.1%	8 404	0.2%
Automotive fuel	27 348	0.8%	76 270	0.7%	45 129	0.9%
Gambling	35 845	1.1%	109 439	1.0%	73 101	1.4%
Percentage of total SA	**1 365 547**	**41.1%**	**4 281 826**	**38.5%**	**2 530 334**	**49.3%**

Table 13 provides further insight into the structure of employment by showing the distribution between estimated skill levels for the formal sector and also the distribution between formal and informal employment on an economy-wide level per sector.

The results indicate that most sectors maintain a formal employment structure, although it varies across sectors. Mining exhibits one of the highest formal employment shares, reflecting the highly regulated and capital-intensive nature of the industry and its supply chains. Pharmaceutical products, automotive fuel, and personal care products similarly exhibit relatively high formal employment shares due to regulatory requirements and higher skills intensity. Sectors such as apparel, food, gambling, and toys and games exhibit relatively higher percentages of unskilled labour and a larger informal employment share, reflecting the role of informal retail channels and labour-intensive production structures.

From an illicit trade perspective, illicit activity may disproportionately undermine formal employment opportunities within labour-intensive sectors. Increased illicit penetration may reduce the sustainability of formal production and retail activities. This could further weaken the formal employment base and reduce opportunities for skills development, stable income generation, and labour market formalisation.

Table 108: Economy-wide impacts per sector, formal and informal employment, and skills share

	Formal percentage split			Formal share	Informal share
	Percentage skilled	Percentage semi-skilled	Percentage unskilled		
Mining	22.1%	47.2%	30.7%	70.5%	29.5%
Food	14.0%	30.8%	55.1%	66.9%	33.1%
Non-Alcoholic Beverages	20.1%	40.8%	39.1%	67.0%	33.0%
Alcohol beverages	19.0%	38.5%	42.5%	67.1%	32.9%
Tobacco					
Apparel	17.5%	43.3%	39.2%	61.5%	38.5%
Pharmaceutical products	22.6%	43.6%	33.8%	67.3%	32.7%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	22.6%	45.5%	31.9%	66.0%	34.0%
Basic chemicals, fertilisers and pesticides; Chemicals n.e.c.	23.3%	44.7%	32.0%	69.3%	30.7%
Toys and games	14.4%	30.9%	54.7%	66.5%	33.5%
Automotive fuel	23.7%	46.1%	30.2%	66.6%	33.4%
Gambling	21.0%	35.9%	43.0%	67.3%	32.7%

The estimated economy-wide contribution of the selected sectors to government revenue, after incorporating multiplier effects, is presented in Table 14. The table disaggregates government revenue into activity taxes, direct taxes, and sales taxes.

Mining remains the largest contributor to total government revenue among the selected sectors, reflecting its large economic footprint. Direct taxes (corporate income taxes and personal income taxes) account for the largest percentage of mining and food taxes. Sectors such as alcoholic beverages, automotive fuel, tobacco, and apparel show disproportionately large tax contributions relative to their GDP size due to the importance of indirect taxes and excise duties included in final product prices.

Automotive fuel exhibits a very high share of sales taxes relative to total taxes, although this is also a result of the adjustment that was made in the results to include the 2024 value of the fuel levy. Alcoholic beverages and tobacco products also show large sales-tax contributions because of excise duties and VAT included within retail prices. These sectors, therefore, remain particularly sensitive to illicit trade dynamics, as increased illicit penetration may directly erode one of the most important and efficient sources of government revenue collection.

Table 109: Economy-wide impacts per sector, on government revenue (2024)

	Government revenue (Rm)	Percentage of total Government revenue	Share of taxes		
			Activity taxes (i.e., taxes on production less subsidies on production)	Direct taxes (i.e., corporate and personal income tax)	Sales taxes (i.e., taxes on products less subsidies on products, including duties)
Mining	326 090	17.9%	8.4%	52.5%	39.0%
Food	118 519	6.5%	7.7%	51.6%	40.7%
Non-Alcoholic Beverages	31 493	1.7%	6.5%	37.7%	55.8%
Alcohol beverages	115 773	6.4%	3.5%	21.2%	75.2%
Tobacco	25 200				
Apparel	108 334	6.0%	5.1%	32.3%	62.6%
Pharmaceutical products	28 317	1.6%	7.3%	38.3%	54.4%
Soap, cleaning and polishing preparations, perfumes and toilet preparations	37 878	2.1%	6.6%	35.5%	57.9%
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	50 490	2.8%	9.4%	46.9%	43.7%
Toys and games	2 135	0.1%	6.1%	42.5%	51.4%
Automotive fuel	95 796	5.3%	1.7%	8.7%	89.7%
Gambling	23 983	1.3%	6.7%	41.9%	51.4%
Percentage of total SA	**964 009**	**53.0%**			

Table 110 summarises several key economy-wide ratios derived from the multiplier analysis in order to illustrate the relative efficiency, labour intensity, and fiscal significance of the selected sectors. The table, therefore, provides additional perspective regarding the structural characteristics and broader economic role of each sector within the South African economy.

The “value tracing back to the economy for every R1 of GDP” and “for every R1 of sales” indicators provide an indication of the relative importance of the sector in terms of the broader economy and the strength of multiplier effects. Sectors such as mining, food, and apparel exhibit relatively strong economy-wide linkage effects due to their extensive integration with domestic supply chains, logistics, manufacturing inputs, and downstream distribution activities.

The employment-related indicators further demonstrate important differences in labour intensity across sectors. Food, apparel, gambling, and toys and games exhibit relatively stronger employment multipliers, reflecting their labour-absorbing characteristics. In contrast, sectors such as mining, pharmaceuticals, and automotive fuel exhibit higher productivity and skills intensity, but generally lower employment creation relative to output levels.

The tax-related ratios illustrate the substantial fiscal importance of several consumer-product sectors. Alcohol beverages, tobacco, and automotive fuel generate relatively higher tax multipliers due to the role of excise duties, fuel levies, and VAT embedded within final market prices.

Table 110: Economy-wide impacts per sector, key ratios

	Value tracing back to the economy for every R1 of GDP	For every R1 of sales, the amount generated in the economy	Percentage increase in household income	Share of formal employment	Percentage of low-skilled jobs	Relevant ratio of job creation (one in every number of jobs in SA)	Employment multiplier	Relevant ratio of R1 tax to SA total tax	Average Tax multiplier
Mining	4.7	1.33	18.4%	70.6%	29.4%	6.7	2.06	5.6	0.28
Food	13.0	1.23	6.6%	66.9%	33.1%	10.6	3.34	15.3	0.26
Non-Alcoholic Beverages	62.4	1.33	1.3%	67.0%	33.0%	76.4	2.41	57.8	0.36
Alcohol beverages	25.0	1.22	2.6%	67.1%	32.9%	37.1	1.83	15.7	0.48
Tobacco	139.3	1.03	0.2%	73.3%	26.7%	113.8	2.80	56.6	0.63
Apparel	20.2	0.98	4.1%	61.6%	38.4%	19.4	2.26	16.8	0.29
Pharmaceutical products	68.2	1.07	1.3%	67.3%	32.7%	79.1	2.03	64.2	0.28
Soap, cleaning and polishing preparations, perfumes and toilet preparations	53.9	0.82	1.6%	66.0%	34.0%	61.4	1.59	48.0	0.23
Basic chemicals, fertilisers & pesticides; Chemicals n.e.c.	32.8	0.65	2.87%	69.30%	30.70%	38.96	1.22	36.0	0.15
Toys and games	838.5	1.01	0.10%	66.56%	33.44%	928.55	2.01	852.0	0.24
Automotive fuel	70.2	0.76	0.8%	66.6%	33.4%	133.9	0.88	19.0	0.70
Gambling	75.8	1.34	1.1%	67.3%	32.7%	89.1	2.53	75.9	0.33

Overall, the table demonstrates that when multiplier effects are accounted for, the selected sectors play a central role not only in production but also in employment creation and revenue generation across the economy. Increasing levels of Illicit trade can have much wider disruptive impacts on the economy, especially in terms of government revenue generation, formal job creation and economic growth.

Table 111 provides an estimate of the potential size of illicit activities within the selected sectors, combining the "Informal, illicit, non-profit, and households" estimates from the Stats SA SUT with additional information from sector studies, industry reports, and own calculations. The table illustrates the variation in the estimated size of illicit activity across the twelve mentioned sectors.

The Illicit activity in mining of just under R2.5 billion is potentially significantly underestimated by Stats SA when compared to the Parliamentary report by Enact that mentioned a figure of $1 billion (or R18.3 billion at the 2024 rand dollar exchange rate). The Enact report is also significantly lower compared to the 2024 figure of R60 billion mentioned by the Minister of Mineral and Petroleum Resources[81], which is used for this study.

Tobacco and alcohol products exhibit the largest estimated illicit penetration relative to their formal market size. Tobacco products show an estimated illicit market value of approximately R45 billion when adjusted to comparable formal market

[81] *https://www.sanews.gov.za/south-africa/r60-billion-lost-illegal-mining-2024-says-minister*

prices, and estimated tax losses of more than R31 billion (using the figure from OE Africa). Alcoholic beverages similarly show a large estimated illicit market, with formal-equivalent market values approaching R40 billion and estimated tax losses of approximately R16.5 billion. These sectors are characterised by particularly high excise duties and VAT burdens, creating strong incentives for tax evasion, smuggling, under-declaration, and counterfeit production.

The table further highlights the impact of illicit activities in sectors such as apparel, food, and pharmaceuticals. Although some sectors show lower estimated absolute illicit values, the broader economic and social risks associated with these activities remain substantial, not only in terms of unfair competition, loss of GDP, loss of tax income, and loss of formal sector jobs, but also where illicit trade undermines product quality, consumer safety and regulatory compliance.

The table also distinguishes between illicit market values measured at observed illicit prices and estimates adjusted to equivalent formal market prices for alcoholic beverages and tobacco (estimates are not available for other sectors). Illicit goods typically sold at substantial discounts relative to formal products because taxes, regulatory costs, and compliance requirements are avoided.

As a result, the observed monetary value of illicit transactions may understate the true economic scale of these activities if they were instead traded within the formal economy at prevailing legal market prices. The adjusted estimates therefore provide an indication of the potential economic value and fiscal losses associated with illicit trade under a full-compliance scenario, while recognising that actual market outcomes would likely be lower as a result of consumer responses to higher prices and demand elasticity.

Table 111: Estimated size of illicit activities and potential economic impacts, 2024 (R millions)

	Stats SA Intermediate supply of products by 'Informal, illicit, non-profit, and households', 2024 (adjusted)	Estimate of potential Illicit, at illicit prices using 'discount' factor (if available)	Estimated percentage lower price for Illicit (if available)	Sources
Mining	2 423			Mineral and Petroleum Resources
Food	32 758			Own estimation
Non-Alcoholic Beverages	5 870			Own estimation
Alcohol beverages	20 566	25 100	37.0%	Euromonitor / DFSA, OE Africa/Own estimation
Tobacco	10 655	24 412	45.7%*	OE Africa
Apparel	32 701			Own estimation
Pharmaceutical products	1 483			Own estimation
Soap, cleaning and polishing preparations, perfumes and toilet preparations	2 486			Own estimation
Basic chemicals, fertilisers and pesticides, Chemicals n.e.c.	1 631			Own estimation
Toys and games	1 456			Own estimation
Automotive fuel	-			Fuels Industry Association of SA
Gambling				SABA
Total mentioned sectors	**110 398**	**49 512**		-

Note: Mining is at basic prices and not market prices

The impact of illicit activity must also be viewed in terms of the multiplier impacts, as presented in Table 11, which shows that these sectors generate substantial economy-wide impacts and, by implication, that sector losses, as a result of illicit activities, do not only have a negative direct impact on economic activity but also a wider economic impact.

At the same time, estimating the net multiplier impact of illicit trade remains challenging given data limitations. The Leontief-based SAM framework reflects the observed structure of the SA economy and therefore captures the inter-industry relationships embedded within officially recorded production, consumption, trade, and income flows. Illicit economic activity, however, does not operate entirely outside the economy. Illicit producers and distributors still require transport services, labour, electricity, packaging, warehousing, raw materials, communication services, and, in some cases, locally sourced agricultural or manufactured inputs. For example, some illicit tobacco products may still use domestically produced tobacco, employ local labour, purchase packaging materials, and rely on transport and distribution networks.

As a result, portions of the broader multiplier structure associated with illicit activity may in practice overlap with, or partially mimic, the formal economy reflected in the SAM. The implication is that the economy-wide losses associated with illicit trade are unlikely to be equivalent to the full multiplier impacts estimated for the formal sectors in Table 11.

Some economic activity displaced from the formal economy may still generate secondary economic effects within informal or illicit supply chains, although potentially with different production structures, lower tax compliance, weaker labour protections, reduced productivity, and lower formal sector linkages. The extent to which illicit multiplier structures differ from formal sector structures remains largely unknown due to the limited availability of reliable data on illicit supply chains and production relationships.

Consequently, the multiplier analysis presented in this study should primarily be interpreted as illustrating the broader economic significance and interconnectedness of the selected sectors within the formal economy, rather than as an estimate of indirect loss associated with illicit trade.

APPENDIX: METHODOLOGY

1. Overview of the economic impact methodology

The analysis follows a two-stage approach.

- **First, the size and penetration of illicit trade are estimated** for each sector using the most appropriate available evidence and methodology for that sector. These estimates provide the basis for determining the economic activity potentially displaced by illicit trade.
- **Second, the estimated illicit-market values are translated into economic, employment and fiscal impacts using Econometrix's Input–Output (I–O) and Social Accounting Matrix (SAM) frameworks**. This allows the analysis to capture the economic linkages associated with activity that would otherwise have occurred within the compliant economy.

The approach therefore distinguishes between the measurement of the illicit market and the economic impact associated with the displacement of formal economic activity. The two stages use different data inputs and assumptions and should not be conflated.

2. Estimating illicit-market penetration

The estimated illicit-market penetration for each sector is based on the methodology considered most appropriate given the availability and quality of sector-specific evidence.

Depending on the sector, estimates draw on sources including industry and market research, official statistics, trade data, mirror-trade analysis, Supply-Use Tables, consumer evidence, seizure and enforcement information, and other published research.

Where a direct quantitative estimate of illicit-market penetration was available, this was used as the primary estimate, subject to assessment of its methodology and relevance to the South African market. Where no direct estimate was available, the illicit-market size was estimated using alternative evidence-based approaches, including trade discrepancies, Stats SA's Supply-Use Table analysis and other sector-specific indicators.

The resulting sector estimates represent analytical estimates of illicit-market activity rather than directly observed measures of the entire illicit economy. Where significant uncertainty exists, this is reflected in the interpretation of the results.

3. Input–Output modelling

The estimated value of illicit trade provides the starting point for assessing the economic activity displaced from compliant businesses.

Econometrix's Input–Output (I–O) framework provides a representation of the production structure of the South African economy and the interdependencies between industries. It captures the inputs that industries purchase from other industries in producing goods and services, thereby allowing the analysis to trace the wider production effects associated with a change in economic activity.

For this study, the I–O framework was developed using the appropriate official economic data available to Econometrix, including information from Statistics South Africa and other official macroeconomic sources. The framework is structured across 54 economic activities/industries, allowing the sector-specific impacts to be traced through the wider production system.

The model uses the Leontief framework to estimate the production required throughout the economy to support a given level of final demand. In simplified terms:

$$X = (I - A)^{-1}Y$$

where:

X represents the total production required across industries;

Y represents the change in final demand associated with the activity being modelled;

A represents the matrix of technical coefficients describing the intermediate input requirements of each industry; and

$(I–A)^{-1}$ is the Leontief inverse, which captures the direct and indirect production requirements associated with a change in demand.

The I–O model therefore allows the analysis to move beyond the activity directly affected by illicit trade and identify the production and value-chain effects associated with the affected sectors.

4. Social Accounting Matrix (SAM) modelling

The I–O framework is supplemented by a Social Accounting Matrix (SAM) to capture the broader relationships between production, labour, households and other institutional sectors of the economy.

Where the I–O framework primarily describes inter-industry production linkages, the SAM incorporates the interaction between economic activity, labour income, households and other institutions. This allows the analysis to assess the effects generated when changes in production and employment feed through to household income and spending.

The Econometrix SAM incorporates the South African production structure and labour market, including differences in labour requirements across economic activities and skill categories. It therefore provides a framework for estimating the wider effects of displaced economic activity on employment, income and economic output.

For this study, the modelling framework is based on a 2022 SAM, adjusted for the 2024 economic environment, using Statistics South Africa data and other relevant official economic information. The SAM was developed and calibrated by Econometrix for the purposes of the analysis.

5. From sector contribution to economic impact

The estimated illicit-market penetration is applied to the relevant formal-market activity to estimate the portion of economic activity displaced by illicit trade.

The modelling provides a consistent framework for distinguishing between the current contribution of the selected sectors, the economic activity displaced by illicit trade, and the potential contribution in the absence of illicit trade.

Current sector contribution

The analysis first establishes the contribution of each selected sector to the South African economy in terms of output, GVA/GDP, employment and tax revenue, including relevant sales tax, personal income tax and activity-related tax contributions.

These estimates provide the baseline against which the potential effects of illicit trade are assessed.

Impact of illicit trade

The analysis estimates the associated direct loss of formal output, GVA/GDP, employment and government tax revenue. The fiscal impact incorporates the relevant tax channels, including sales taxes, personal income tax and activity-related taxes.

These estimates represent the direct economic contribution associated with the formal-market activity displaced by illicit trade and form the basis of the headline economic, employment and fiscal impact estimates presented in the report.

The I–O and SAM frameworks provide the underlying economic structure for the analysis and are used to assess the relevant production, employment, income and fiscal relationships."

6. Counterfactual: contribution in the absence of illicit trade

The analysis also develops a counterfactual scenario to estimate the potential contribution of the selected sectors in the absence of illicit trade.

Under this scenario, the demand currently supplied through illicit activity is assumed to be supplied through compliant formal-sector activity, subject to the assumptions of the model.

The counterfactual therefore provides an estimate of the potential output, GVA/GDP, employment and tax contribution that could be supported if illicit trade were eliminated and the associated demand were channelled through the formal economy.

This should not be interpreted as a forecast that all illicit demand would automatically or immediately transfer to formal suppliers. Actual outcomes would depend on factors such as consumer behaviour, pricing, supply capacity and the extent to which demand is channelled back into the formal market.

7. Interpretation and limitations

The estimates presented in this report should therefore be interpreted as modelled estimates of economic activity displaced by illicit trade, rather than forecasts of what would automatically occur if illicit trade were eliminated.

The analysis provides a consistent basis for comparing the economic, employment and fiscal effects of illicit trade across the twelve sectors. However, the results remain subject to the limitations of the underlying sector penetration estimates, economic data, sector relationships and modelling assumptions.

The estimates should consequently be interpreted as evidence-based estimates of the potential economic and fiscal impact of illicit trade, rather than precise measures of an unobserved counterfactual economy.

HOW THE METHODOLOGY FITS TOGETHER



1. ILLICIT MARKET ESTIMATE

Estimated value/volume of illicit activity by sector.



2. FORMAL-MARKET DISPLACEMENT

Estimated economic activity that would otherwise have been generated by compliant businesses.



3. DIRECT IMPACT

Production / GVA / employment / fiscal contribution.



4. I–O LINKAGES

Supply-chain effects across industries.



5. SAM LINKAGES

Household income, spending and wider economic effects.



6. TOTAL ECONOMIC IMPACT

Direct + indirect + induced effects.

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