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A path to prosperity for South Africa

Saving, investment and socio-economic transformation

2019

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Authors: Adrian Saville and Ian Macleod

“One only understands the things that one tames,’ said the fox.

‘Men have no more time to understand anything. They buy things already made at the shops. But there is no shop anywhere where one can buy friendship, and so men have no friends any more.

If you want a friend, tame me.“

The Little Prince
Antoine de Saint-Exupéry (1943)

Content

A path to prosperity for South Africa

Saving, investment and socio-economic transformation

“What are people actually able to do and to be? What real opportunities are available to them?”

Creating Capabilities
Martha C. Nussbaum (2011)

One

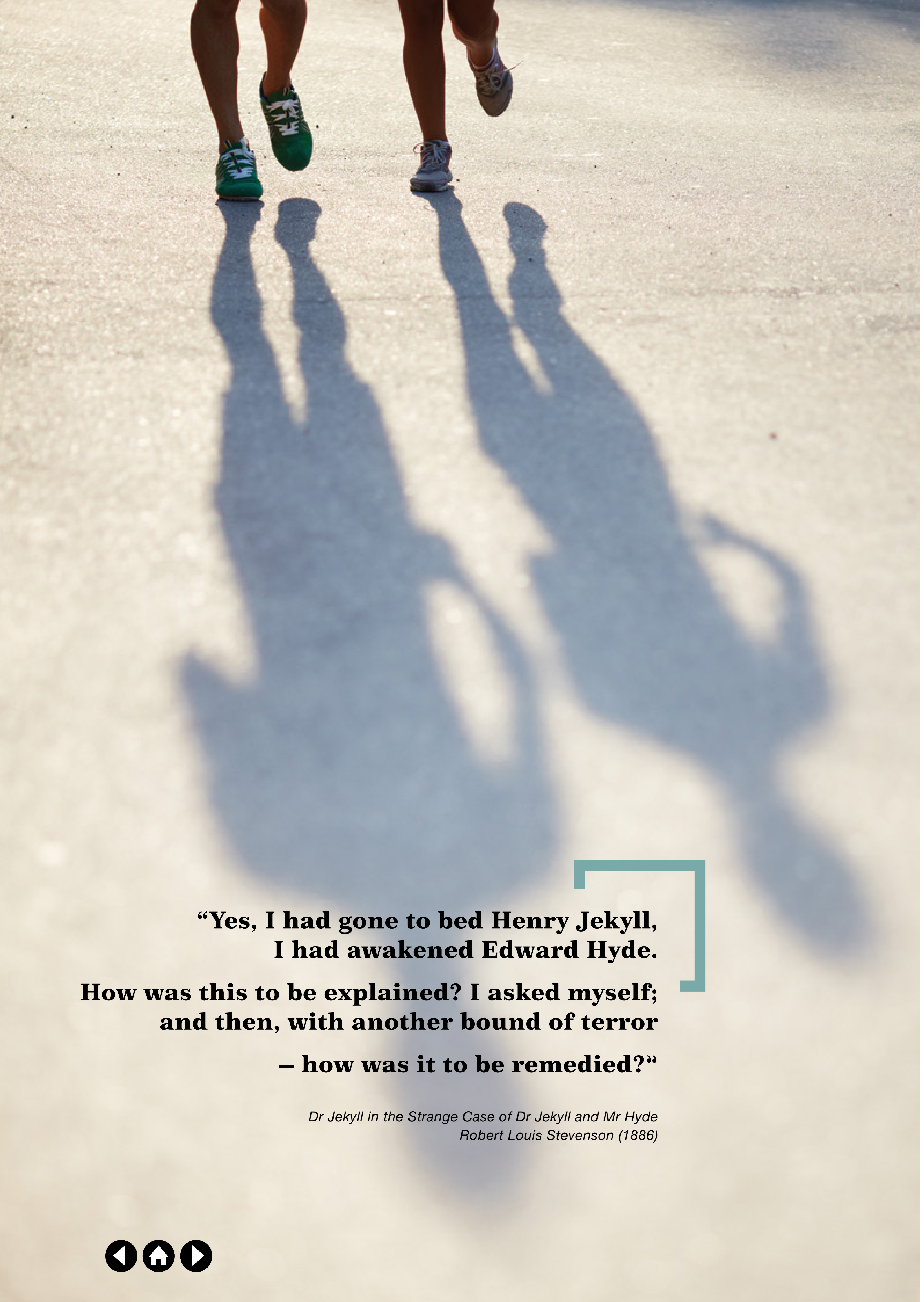
Abstract

“I should have based my judgement upon deeds and not words.”

The Little Prince
Antoine de Saint-Exupéry (1943)

This note is devoted to stories of transformation and change, stories of countries, communities and families that make the journey from ‘poor’ to ‘prosperous’. These are not stories of miracles that peddle in false hope or that are filled with naïve optimism. The cases covered in this note deal with common problems, common ingredients and common sense to explore and examine how ordinary places become extraordinary. These cases are presented at a time when the South African economy is trapped in a low growth state, with deeply entrenched inequalities that retard economic mobility, confine capabilities, scar social welfare and narrow the path to prosperity. For South Africa, these deep-rooted problems are structural in nature, but they are by no means unique. Other countries have faced equal or greater challenges, and their transformation offers South Africa lessons and guides. Getting the country onto a prosperous path demands that we identify the constraints that bind South Africa, square up to the reality and establish the right structural levers to pull for the greatest impact to achieve elevated, inclusive, sustainable and transformative growth. The evidence explored in this note flag a primary constraint – South Africa’s dire savings-investment deficit – and the experiences of other countries point to ways in which this binding constraint can be broken.

The South African economy has set up residence in low-growth terrain. Over the past decade, from the financial crisis of 2008 to the end of 2018, the country’s economic growth rate has averaged just 1.5% a year. This is barely ahead of the population growth rate of 1.2% a year, which translates into a decade-long economic stall. Cyril Ramaphosa’s presidency has promised to release the country from this low growth trap. However, for this policy proposal to translate into reality, South Africa must square up to its structural constraints. On this score, the evidence from the so-called ‘miracle economies’ lays bare a fundamental weakness in the country’s economic architecture: a pervasive gap between the available level of savings to fund the level of investment needed to achieve elevated economic growth, fund new firms and infrastructure, drive competitiveness, create jobs and transform the social and industrial landscapes. If the Ramaphosa administration’s ambition is to step up to the plate to deliver on the proposal of 5.4% economic growth a year, as set out in South Africa’s National Development Plan (NDP), there is an abundance of evidence and ideas from countries that have achieved elevated and inclusive growth on what is needed to close the savings-investment gap. The burgeoning field of behavioural economics adds to this endeavour by presenting the science of how this gap is closed by engaging households, firms, families and individuals.



“Yes, I had gone to bed Henry Jekyll, I had awakened Edward Hyde.

How was this to be explained? I asked myself; and then, with another bound of terror – how was it to be remedied?”

Dr Jekyll in the Strange Case of Dr Jekyll and Mr Hyde
Robert Louis Stevenson (1886)

Two

‘A world in one country’

“Two conditions of self-sustaining growth are that a country has acquired a cadre of domestic entrepreneurs and administrators and, secondly, that it has attained to adequate savings and taxable capacity.”

Nobel Prize Lecture: The Slowing Down of the Engine of Growth
Sir Arthur Lewis (1979)

The early 1990s saw South Africa emerge from economic sanctions that had been imposed on the country as part of an international effort to dismantle the Apartheid regime. With world markets opening to the country after three decades of economic isolation, South Africa Tourism (SATOUR) proclaimed South Africa to be ‘a world in one country’ (Rassool and Witz, 1996, 336). This messaging represented an effort to reposition South Africa’s image in the world’s eyes, as the country’s polity and social fabric were being re-formed. Almost three decades on, South Africa has transformed and transitioned in remarkable ways. However, in an ironic twist, over the same period, South Africa’s social, economic and business fabric has contorted to catch up with SATOUR’s messaging. The South Africa of 2019 encases ‘a world’ of highly sophisticated financial services alongside financial exclusion, globally competitive multinational corporations alongside a domestic unemployment rate of 27.1%, and an agricultural sector that boasted a US$3.9bn trade surplus in 2018 while 22.8% of South African households have inadequate or severely inadequate access to food (Sihlobo, 2019; South African National Health and Nutrition Examination Survey, 2013). Evidently, if South Africa is anything, it is a world in one country, a country of contradictions, extremes, paradoxes and ambiguities.

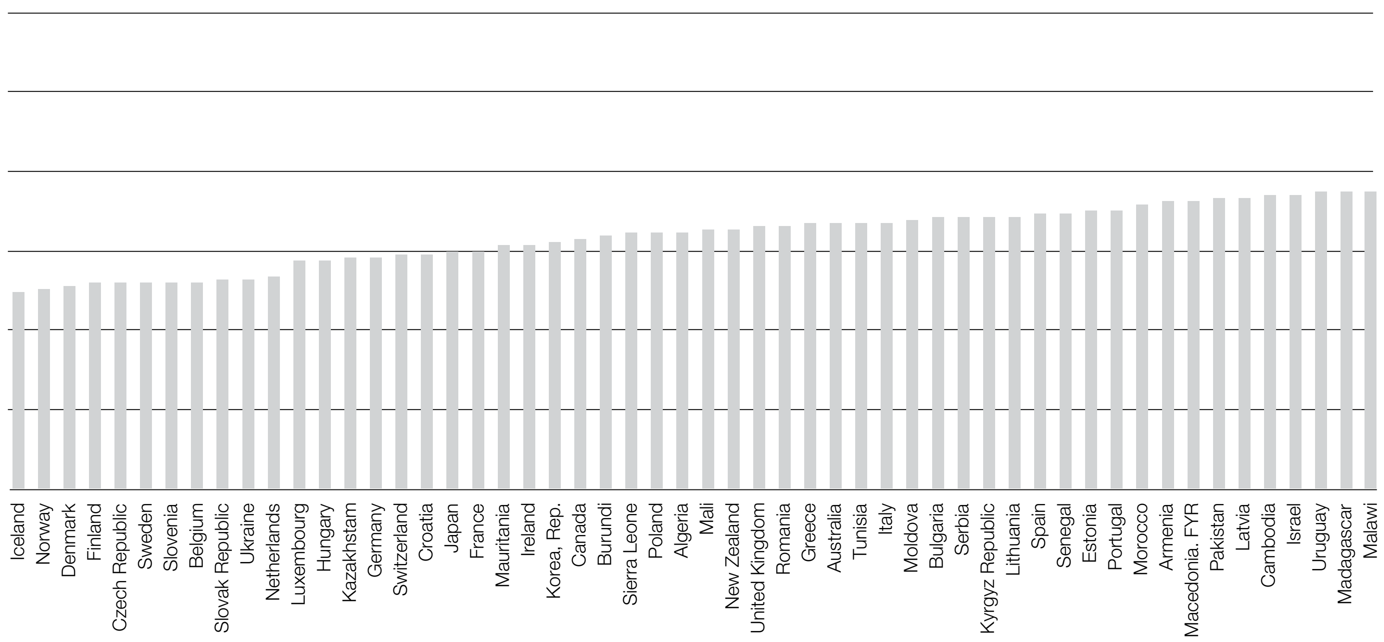
The diversity and disparity sketched in the above examples are displayed more exactly by the World Economic Forum’s (2018) *Inclusive Development Index*, which assesses the economic performance of 103 countries based on three pillars: growth and development, inclusion and intergenerational equity. Along one of these dimensions, which assesses income inequality, South Africa records the highest income inequality of the more than 100 countries that make up the index, with a Gini coefficient of 57.7.[1]

[1] The Gini coefficient measures the extent to which the distribution of income (or some other measure such as land or wealth) among individuals or households within an economy deviates from a perfectly equal distribution. The Gini coefficient measures the area between the Lorenz curve and the hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. A Gini coefficient of zero represents perfect equality and 100, perfect inequality.

Figure A

Net Income Gini coefficient: 2018

Source: World Economic Forum (2018, 17-19)



South Africa records the highest income inequality of more than 100 countries with a Gini coefficient of 57.7%.

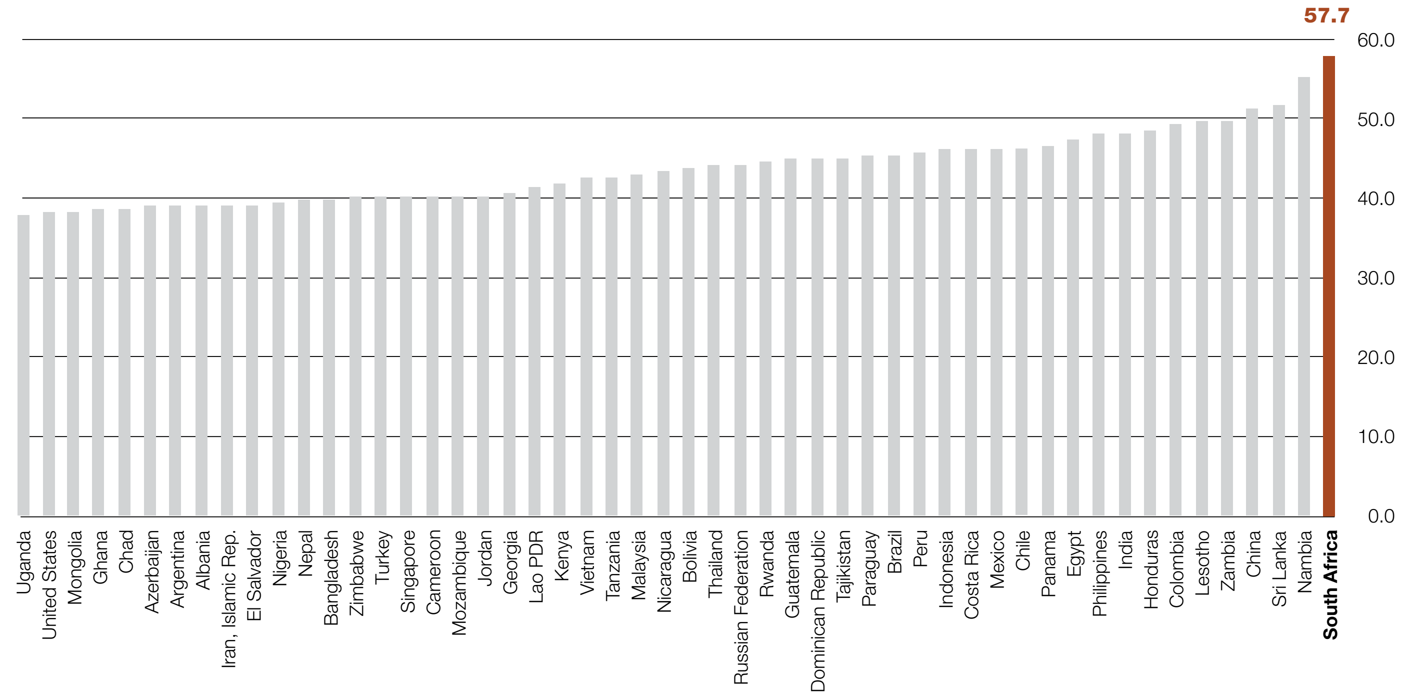
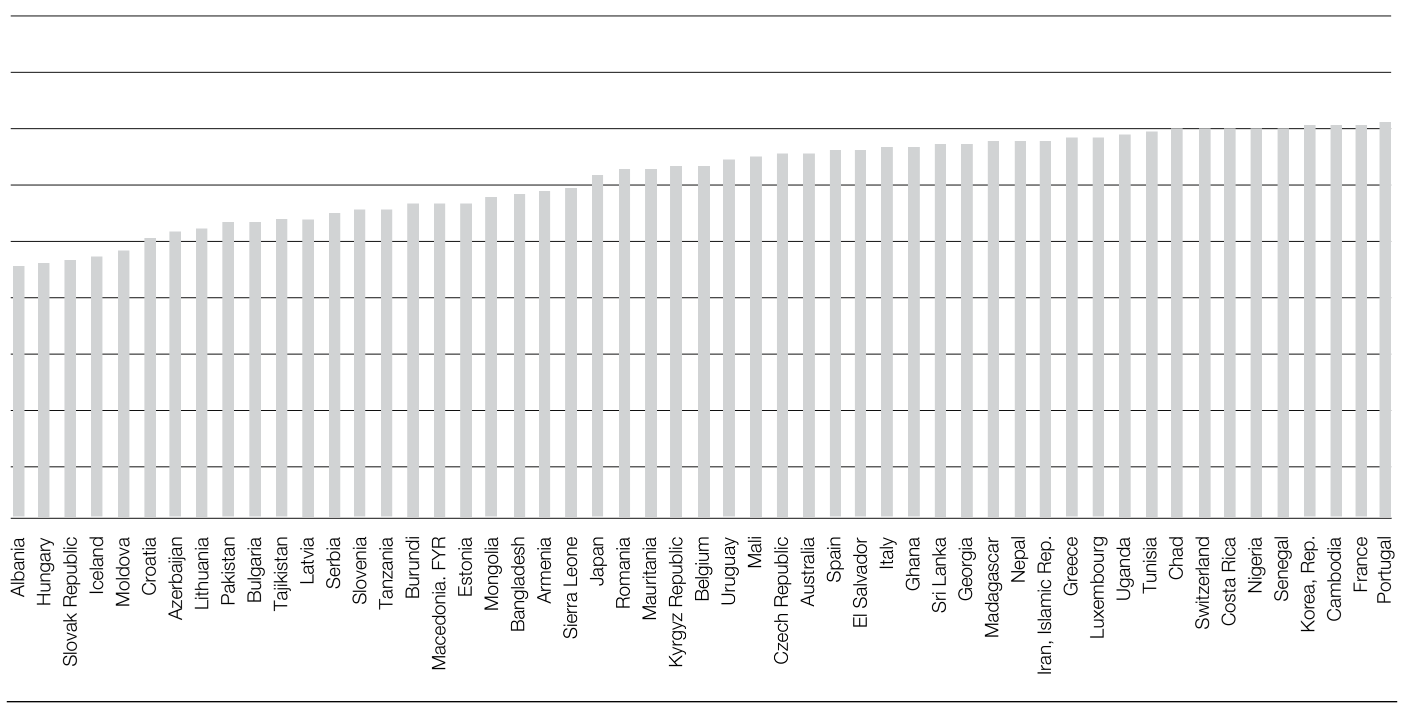
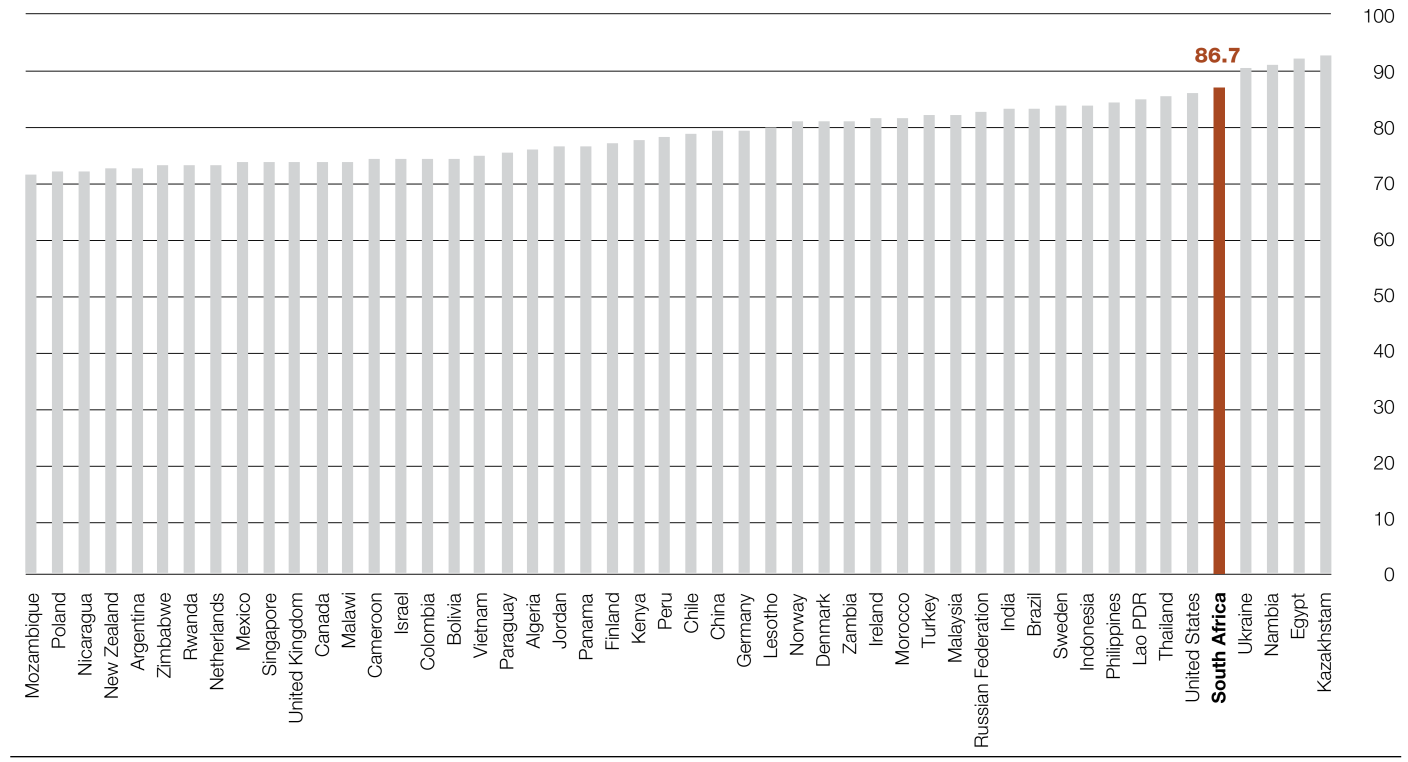


Figure B

Wealth Gini coefficient

Source: World Economic Forum (2018, 17-19)





South Africa is a country replete with contradictions and challenges that policy makers and practitioners must fix if the country is to get onto a prosperous and inclusive path. Addressing these demands is the work of South Africa's so-called 'New Deal'.

If there is a characteristic that defines South Africa, it is this depth of contrast. The country is a world beater and global laggard in the same field at the same time. To add to the examples above, in the field of finance, the 130-year-old Johannesburg Stock Exchange (JSE) is the world's 17th largest and, out of 137 countries, the World Economic Forum ranks the country's financial system 18th in its *Global Competitiveness Index*. Yet, measured by wealth inequality, South Africa ranks fifth from the bottom in the *Inclusive Development Index*, only ranking higher than Kazakhstan, Egypt, Namibia and the Ukraine. In auditing standards, out of 137 countries, South Africa was ranked first in the world for seven years running (2011 to 2017), while ranking 128th in the world in the quality of maths and science education (World Economic Forum, 2017). The ambiguities and inconsistencies abound.

While South Africa has achieved extraordinary gains in political and institutional transformation over the past 25 years, as the earlier examples and evidence suggest, the socio-economic transformation has not scaled the same height. Gathered together, when it comes to considering whether the 'world in one country' offers a passport to prosperity, the evidence is discouraging. To expand on this argument, the *Inclusive Development Index* assesses countries' status and progress to categorise the country as performing well or performing poorly; and advancing or receding. This leads to countries being characterised as bright spots, blind spots, stand out or watch out. South Africa's performance reported in the 2018 index is below average and receding, placing the country on the 'watch out' list, along with Chad, Egypt, Mali, Madagascar, Mauritania, Mozambique and Nigeria.

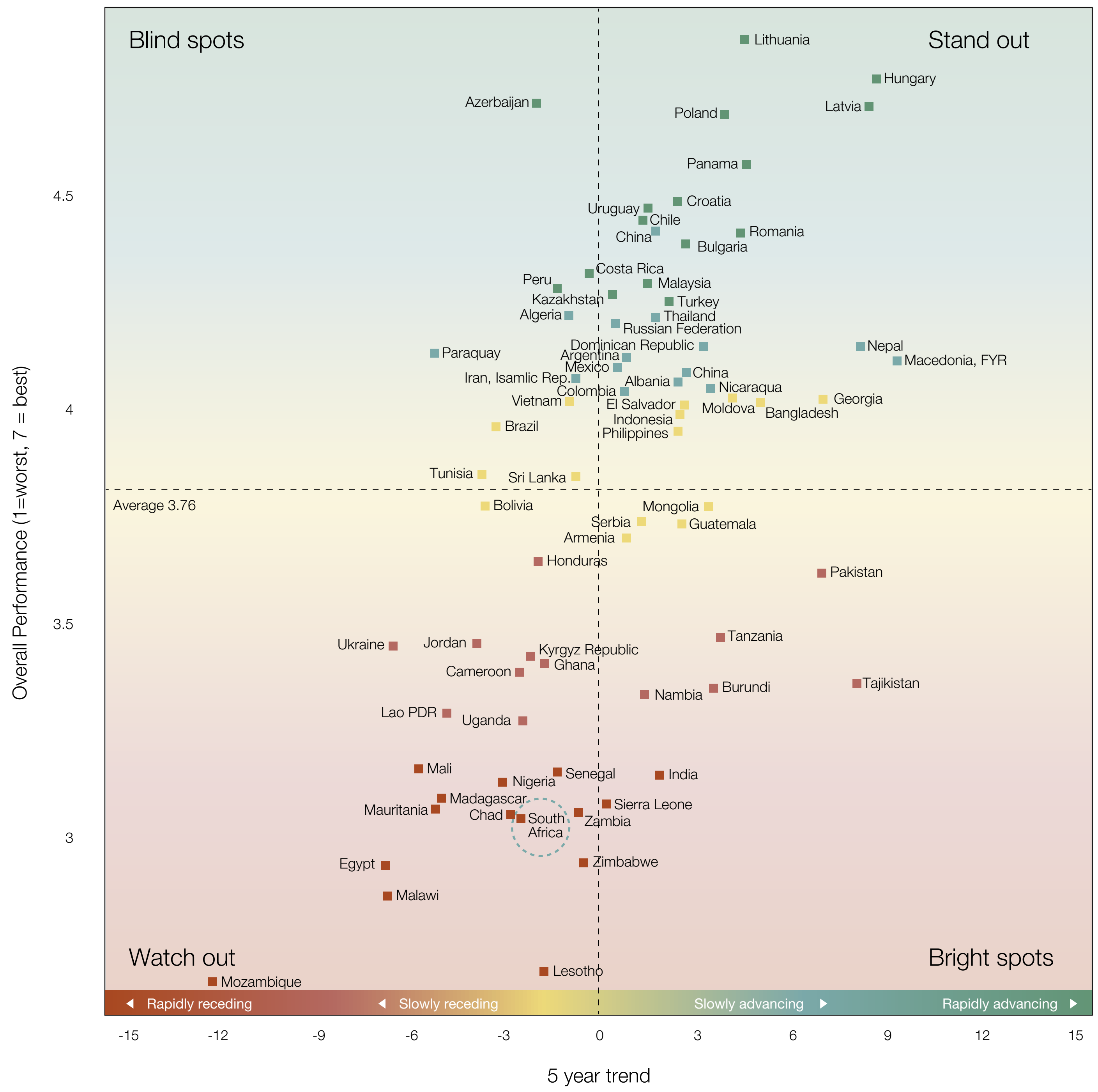
At a political gathering in early 2019 with South Africa's president, Cyril Ramaphosa, the country was described as 'diverse and delicate'. One could argue that 'fragmented and fragile' is a better description. Semantics aside, the evidence is unambiguous. South Africa is a country replete with contradictions and challenges that policy makers and practitioners must fix if the country is to get onto a prosperous and inclusive path. Addressing these demands is the work of South Africa's so-called 'New Deal'.

Figure C

Inclusive Development Index categorisation:

Blind spots, bright spots, stand out and watch out

Source: World Economic Forum (2018, 16)



"… here I was, in a country where a right to say how the country should be governed was restricted to six persons in each thousand of its population …

I was become a stockholder in a corporation where nine hundred and ninety-four of the members furnished all the money and did all the work, and the other six elected themselves a permanent board of direction and took all the dividends.

It seemed to me that what the nine hundred and ninety-four dupes needed was a new deal."

A Connecticut Yankee in King Arthur's Court
Mark Twain (1889)

Three

A 'New Deal': from Roosevelt to Ramaphosa

Much like Roosevelt, South Africa's now-elected president, Cyril Ramaphosa, faces deep and entrenched economic challenges.

In his campaign speech delivered in late 2017 in Orlando, Soweto, South Africa's soon-to-be president, Cyril Ramaphosa, made a direct reference to the woes faced by America's Depression-era leader, Franklin D. Roosevelt (FDR), and drew direct parallels to South Africa's circumstance. Much like Roosevelt, South Africa's now-elected president, Cyril Ramaphosa, faces deep and entrenched economic challenges. In the 1930s, Roosevelt famously promised his economically shell-shocked electorate a 'New Deal'.[2] His iconic vision of 'a chicken in every pot and a car in every garage' now feels quaint in an American landscape of bucket chicken and sport utility vehicles. But consider that in the 1930s, the 'Land of Opportunity' was then in the depths of the sorts of unemployment South Africa faces today.

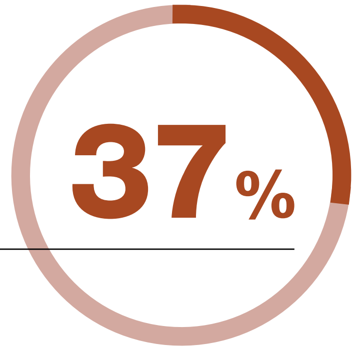
From 1929 to 1933, in the aftermath of Wall Street's Great Crash, manufacturing output decreased by one third. Out of five million non-farm mortgages, an estimated 844,000 had been foreclosed. Unemployment increased from 4% to 25%, and one-in-three of all employed persons were downgraded to working part time on lower pay. In the aggregate, almost 50% of the nation's workforce was going unused and, in the face of collapsed business confidence, prospects were dim.

Upon accepting the 1932 Democratic nomination for president, Roosevelt promised 'a new deal for the American people', saying:

> *"Throughout the nation men and women, forgotten in the political philosophy of the Government, look to us here for guidance and for more equitable opportunity to share in the distribution of national wealth … I pledge myself to a new deal for the American people. This is more than a political campaign. It is a call to arms."*

[2] The phrase 'New Deal' was coined by an adviser to Roosevelt, Stuart Chase, although the term was originally used by Mark Twain (1889) in *A Connecticut Yankee in King Arthur's Court.*

South Africa's expanded unemployment figure at the start of 2019.



The youth unemployment figure at the start of 2019.

The extent and depth of the economic and social problems faced by the United States dictated that Roosevelt's policy initiatives and impacts needed to be equally far reaching. The policies adopted by Roosevelt were wide ranging, and included eliminating wasteful government spending, especially through the government wage bill; restoring confidence in the private sector, in part, embracing urgently needed banking sector reform; repealing restrictive regulations; priming the economic pump by way of a major public works programme, including airports, bridges, hospitals, roads and schools; and modernisation of the farm sector that involved the construction of dams, mechanisation, reforestation and rural electrification. Over the next five years, farm incomes doubled and, within the space of a decade, the gains had spilled over to the rest of the economy.

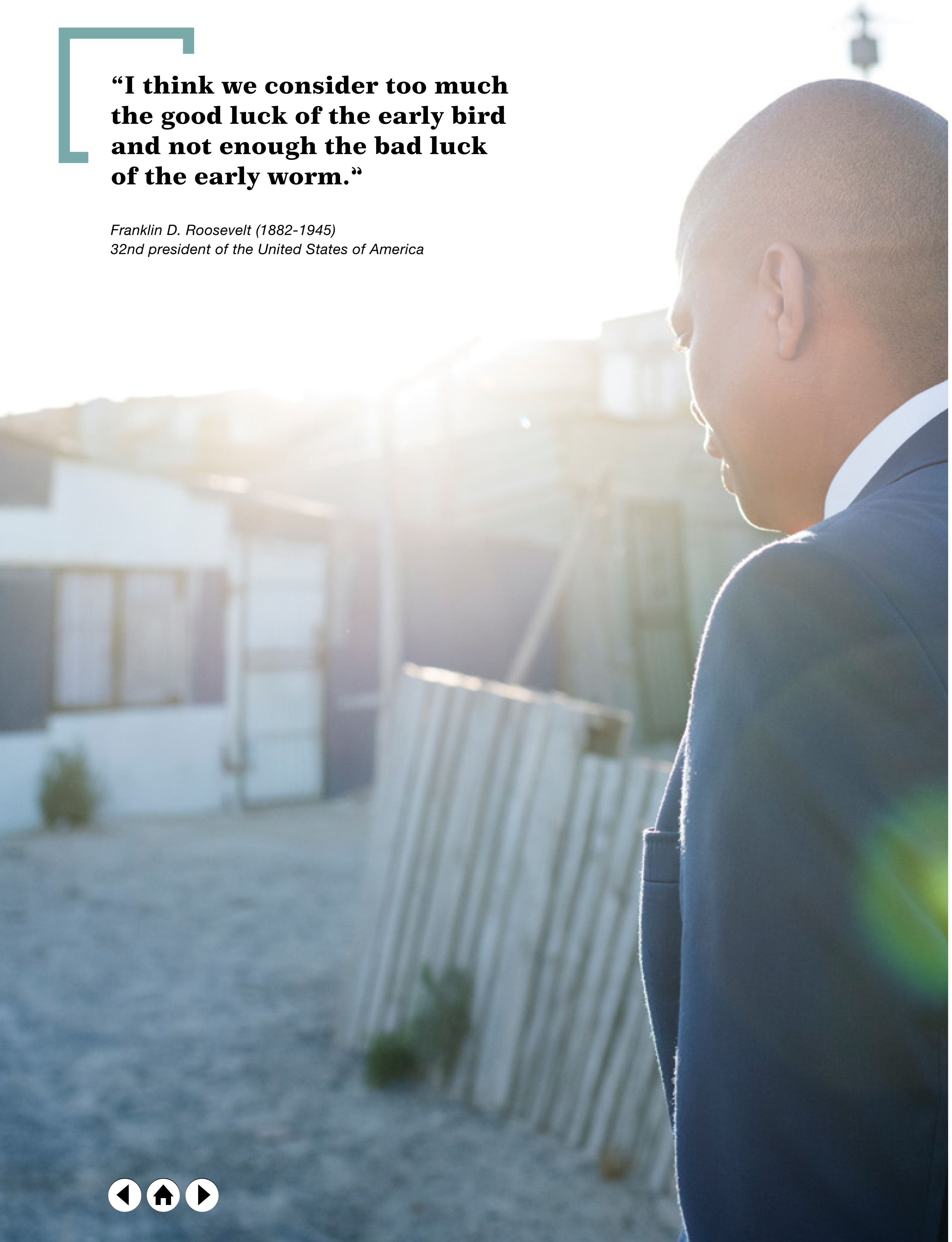
By 1942, unemployment had fallen from the 1933 peak of 24.9% to just 4.7% and average incomes had doubled. With full employment, millions of Americans were lifted out of poverty, and the percentage of families with an annual income of less than US$2,000 fell from 75% to 25% of the population. With this, income inequality experienced a sharp and long-lasting decrease, bringing about the so-called 'Great Compression'. The new-found prosperity also saw consumer expenditures rise by nearly 50% and, at the same time, household balance sheets was restored to health, with the number of individual savings accounts climbed almost sevenfold in the space of ten years. As noted by American historian William H. Chafe: 'with full employment, higher wages and social welfare benefits provided under government regulations, American workers experienced a level of well-being that, for many, had never occurred before.' By almost every measure, the effects and impacts of FDR's New Deal were profound.

More than 80 years on from the Great Depression and an ocean apart, South Africa's economy finds itself in a different, but deep and stubborn slump. Unemployment figures are stuck, having averaged more than 25% over the past ten years, having been reported at 27.1% at the start of 2019. If we use the broader, and arguably more honest, 'expanded' measure of unemployment, South Africa's unemployment figure stood at about 37% at the start of 2019.[3] The youth unemployment figure is even more alarming, standing at 54.7% at the start of 2019.[4] Economic growth, measured by growth in gross domestic product (GDP), has found a 'new normal', hovering in the shallows above 0% but below 2% per year since 2013, and averaging just 1.0% per year since 2009. Perhaps even more sobering is that sluggish growth alongside a population growth rate of 1.6% a year means that, measured in constant rand terms, South Africa's per capita income at the start of 2019 was the same level as 2008 – effectively a 'lost decade'. Moreover, this result is against the backdrop of South Africa having permanent residence on the wrong side of the Gini coefficient, where we take up our place as one of the most unequal societies in the world.

[3] The 'narrow unemployment rate' refers to people who are unemployed and actively seeking work. The 'expanded unemployment rate' refers to people who are unemployed and available to work but have not taken active steps to look for work.
[4] StatsSA (2019), accessed via www.statssa.gov.za/.

“I think we consider too much the good luck of the early bird and not enough the bad luck of the early worm.”

Franklin D. Roosevelt (1882-1945)
32nd president of the United States of America



Four

More than a low-growth rap, we’re in a growth trap

Growth of this nature is consumption-fed and government-led. It is built on the back of a pay-as-you go mindset and is inherently unsustainable.

As much as the low-growth trap is concerning, it is even more worrying that the uninspiring growth we have experienced in recent years comes off a weak base. To explain, fully nine-tenths of the GDP growth we have seen since the first half of the 1990s is accounted for by consumer spending and government spending (Saville, Firth and Madinginye, 2015; updated in Saville, 2018). While not inherently bad from the perspective of GDP accounting – where ‘growth is growth’ – from the perspective of social well-being, this is the type of spending that is cycled around the economy, that is not sustainable and that reinforces inequality. It is not the type of spending that is transformative, inclusive or sustainable.

Figure D

Contribution to economic growth by spending component (1998 – 2018)

Source: StatsSA (2018)

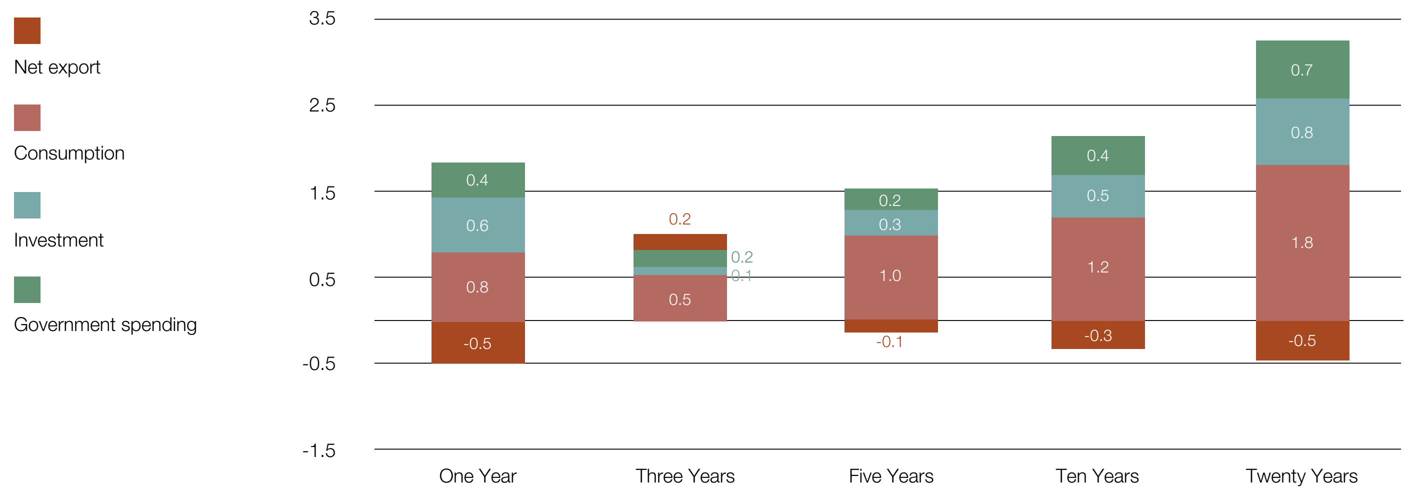
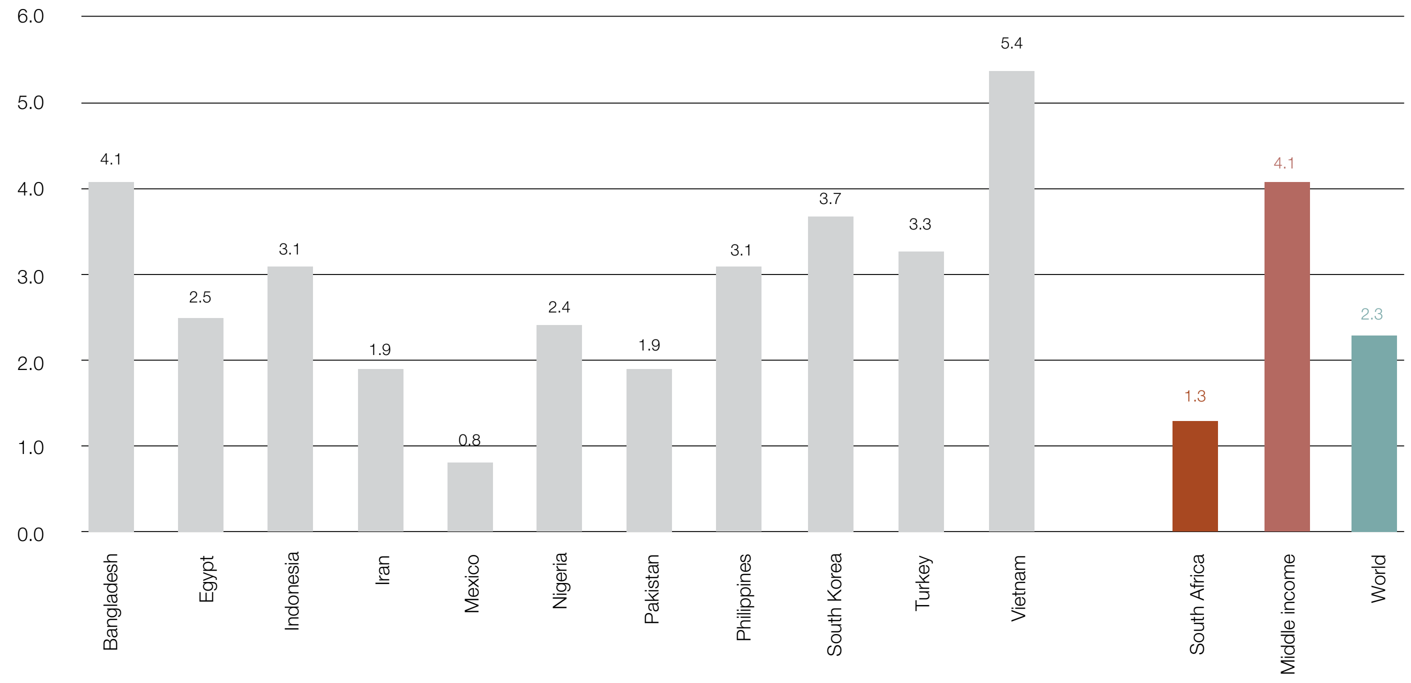


Figure E

Average annual growth in income per capita: 1994 – 2019

Source: World Bank (2019); measured in purchasing power parity (PPP) at 2011 international dollar prices



Growth that is led by current spending in the private sector takes the form of 'I get paid, I buy dinner, the restaurant pays its staff and they buy consumer services and goods.' Or, in the case of the public sector, growth that is explained by current spending has little to show by way of development indicators. Rather, the spending goes to salaries with low productive impact and fills overstaffed motorcades that race between airports and appointments.

The rules of national accounting regard these transactions as a contribution to GDP. If more of the same is done this year than last year, then this presents itself as 'economic growth'. Yet transactions of this nature do not contribute to the productive capacity of the country. Dinner sees me through to breakfast and diesel goes up in smoke as meetings pass without effect.

Growth of this nature is consumption-fed and government-led. It is built on the back of a pay-as-you go mindset and is inherently unsustainable. Growth of this nature fills malls, but it doesn't build schools, lay roads or develop primary research. Growth of this nature does not change industrial structure. It entrenches inequality and reinforces social immobility. Capabilities are frustrated, invention is absent, and innovation is remote.

Even if we ignore the above objection to the nature of South Africa's growth engine, its magnitude trails that of comparable economies. In our 'neighbourhood' of the Next Eleven economies, only Mexico ranks below South Africa (and that off a far higher base) in terms of growth of income per person over the 25 years from 1994-2019.[5] South Africa's growth might be modestly positive, and our income per person might be higher in 2019 than it was in 1994, but the growth is 'bad' and our growth in income per person (1.3% a year) has failed to keep up with emerging nations (4.1%) and, indeed, the world at large (2,3%).

Unlike the challenges faced by the United States in the 1930s, the picture faced by the South African economy is of a structural nature, not a cyclical nature. Even if that isn't the case, the situation in the United States in the 1930s was the result of financial 'shock' rather than South Africa's circumstance being the consequence of deeply ingrained structural constraints. In October 1929, Wall Street slid down a cliff face. South Africa's problem is better likened to soil erosion. This slow deterioration lowers the base line around which ups and downs cycle. That means we can't wait it out or jolt the monster into life with a quick acting monetary policy kick-start or fiscal policy pump primer. The South African Reserve Bank doesn't have the toolkit to fix this. Zero interest rates simply won't do the trick of igniting South African economic growth into the world of 'elevated and sustained' or take unemployment from 20-odd percent to a low single digit figure while incomes per person soar from South African levels (US$6,151 per person) to South Korean levels (US$29,742 per person).

But structural problems don't mean that problems are impossible to fix. Far from it. Rather, structural problems mean that one (or more) of the foundational pillars of the economy is warped, broken or missing. By the same token, if we can identify the problem pillar, then there is a chance we can bend it into shape, repair the structure or build it into place.

[5] The Next Eleven is a term coined by Goldman Sachs in 2005 to represent 11 countries that could have BRIC-like potential in rivalling the G7 nations. While these countries are significantly smaller than the economies of the G7 and even BRIC (Brazil, Russia, India and China) members, these countries evidently have the foundation in place to develop rapidly in the next two or three decades. The Next Eleven includes Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea and Vietnam.

“We must lay hold of the fact that economic laws are not made by nature. They are made by human beings …

We are trying to construct a more inclusive society. We are going to make a country in which no one is left out.”

Franklin D. Roosevelt (1882-1945)
32nd president of the United States of America

Five

Breaking bad: six of the best

Our research identifies six ingredients that are common to so-called ‘economic miracles’.[6]

Over the past decade, we have been involved in a study that examines the growth, development and performance of 160 countries over a period of 60 years. The key purpose of this work is to identify the structural ingredients that build country prosperity. Based on the evidence and experiences of the 160 countries, our research identifies six ingredients that are common to so-called ‘economic miracles’.[6]

The list of countries that make up the ‘miracle set’ is diverse and includes Chile (1985-2010), Costa Rica (1995-2010), Estonia (1995-2015), Poland (1990-2010), Taiwan (1975-2000) and South Korea (1975-2000). Notwithstanding their dissimilar histories and varied composition, their transformations speak to this small, powerful set of six ingredients. This ‘six pack’ of elements combine to produce vast gains in *per capita* incomes, productivity, industrial complexity and sustained improvements in developmental indicators such as life expectancy, education levels, social mobility and inequality.

[6] In the first edition of the Investec GIBS Savings Index (Saville, Firth and Madinginye, 2015), we drew heavily on the *Growth Report* published by the Commission on Growth and Development (2008), to identify countries that had achieved elevated, sustained and inclusive economic growth. Specifically, we drew on the experiences of 13 economies that had produced ‘economic miracles’ by sustaining an average economic growth rate of 7% a year for 25 years or more. These countries included Botswana, Brazil, China, Hong Kong, Indonesia, Japan, Malaysia, Malta, Oman, Singapore, South Korea, Taiwan and Thailand. The experiences of these countries pointed to five common characteristics in their economic makeup, namely, a high rate of investment funded by a high rate of saving, outward economic orientation, macroeconomic stability, market allocated resources and competent governments. Econometric work, modelling and case evidence presented in the report highlighted the saving and investment component as the single factor carrying the highest explanatory power in these countries’ transformations. Consequently, we labelled the 13 countries in that report as the ’savings stars’ and used the countries to benchmark the factors making up the Investec GIBS Savings Index. Since the report was published in 2015, two changes have materialised in the country evidence relating to the ‘saving stars’. The first change is that the country names show some changes – with other countries having emerged to join the ‘saving stars’, including Chile, Costa Rica, Estonia and Poland. This expanded set of 17 countries has allowed us to refine the identity of ‘common factors’ and deepen our understanding of the role these factors play in country transitions. This expands our five factors to a list of six factors, with demography being added as a factor and the domestic resource factor refined to identify education and healthcare as distinct components contributing to transformation. This expanded list of countries makes up what we refer to as the ‘economic miracles’, to distinguish them from the ‘savings stars’. Overwhelmingly, this is naming convention, as it remains the case that the most important factor in explaining elevated, sustained and inclusive economic growth is high rates of saving and investment.

The six ingredients include:

01

A high rate of saving. The high saving rate provides the funding for a high rate of investment in fixed capital that, in turn, underpins productivity gains and advances in industrial efficiency that support economic growth.

02

Access to improving healthcare. The state of a population's wellness, and ongoing improvements in access to healthcare and healthcare infrastructure, support gains in socio-economic welfare.

03

Access to improving education. Rising education levels, with improved access to education and the education infrastructure, gives rise to higher economic growth.

04

A favourable demographic structure. If more people are entering the workforce than leaving it, this adds to the nation's productive capacity and economic welfare.

05

A stable policy environment with effective institutions. Improving quality of a country's institutions and policy stability, including monetary, fiscal and industrial policy, underpin economic growth and development. Transparent policy making and policy stability contribute as much to improvements in economic welfare as policies themselves. A transparent and stable policy setting supports higher investment rates.

06

Economic openness. The extent to which the factors of production (goods, services, capital, people and ideas) can move freely and constructively across borders plays a role in impacting economic growth and lifting country prosperity.

Notably, of the six factors, the most powerful explanatory factor across countries and through time is the first-mentioned element, namely the savings-investment rate.

Importantly, as much as these six ingredients are needed to promote sustained, inclusive and elevated growth and development, their absence provides the basis for understanding why – and possibly how – a country is caught in a low-growth trap. In turn, the six-factor model means that the missing ingredient may just be hiding in plain sight.

Helpfully the six-factor model is also able to attribute weights to each of the factors. Notably, of the six factors, the most powerful explanatory factor across countries and through time is the first-mentioned element, namely the savings-investment rate. Data for 160 countries for the period 1960-2019 suggest that as much as half (R^2=0.54) of the difference in growth rates across countries, as well as within countries through time, can be explained by the level of investment which, in turn, is funded by the rate of country savings. In short, a first step in understanding and explaining a country's economic performance and progress starts with an assessment of the investment rate which, in turn, is generally explained by the level of savings available to fund investment.

> **“It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something.”**
>
> *Franklin D. Roosevelt (1882-1945)*
> *32nd president of the United States of America*

Six

Growth stars and growth miracles. The result of common ingredients and common-sense saving and investment

The evidence suggests that if we want to understand economic growth, we should start with investment.

To illustrate the evidence behind the six-factor model, Figure F on the next page shows the relationship between investment spending as a percentage of GDP (averaged over ten years) and the subsequent economic growth rate (observed over the next five years). The results are shown at the level of the region and represent the experience of 160 countries over a period of 60 years. The evidence suggests that if we want to understand economic growth, we should start with investment.

In turn, the evidence from the same set of 160 countries – underpinned by economic theory – underlines the point that if we want to understand a country’s investment level, we need to start with savings. The strength of the relationship between investment and saving takes the form of an R^2 of 0.928, which indicates that 92.8% of a country’s investment level is explained by the domestic saving rate.

Figure F

Investment & economic growth: 1960 – 2019

Source: International Monetary Fund (2019); World Bank (2019)

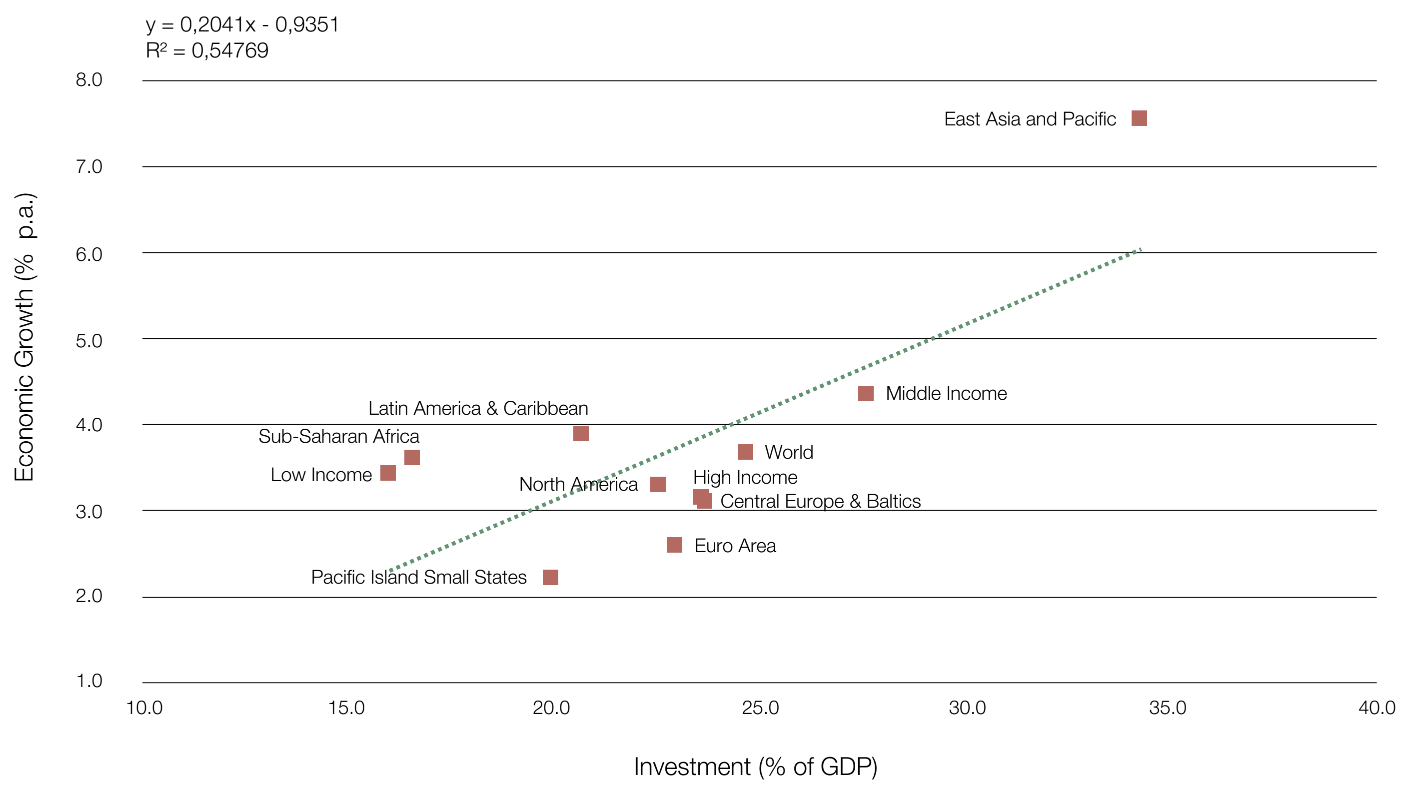
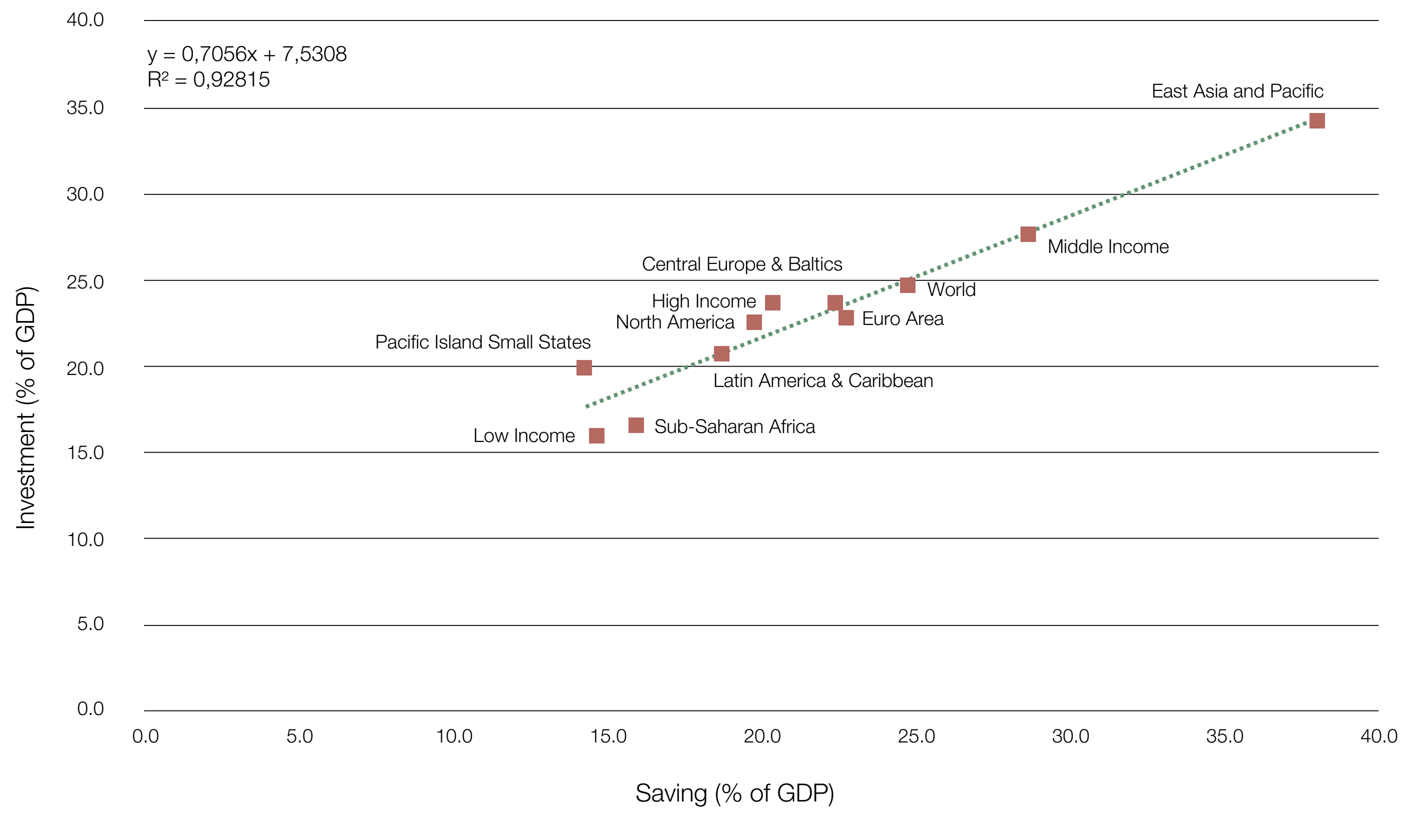


Figure G

Saving & investment rates: 1960 – 2019

Source: International Monetary Fund (2019); World Bank (2019)

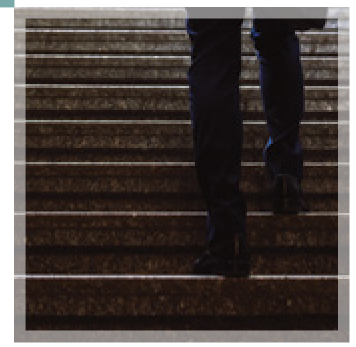


Thus, the second key relationship in explaining economic growth is the level of saving, or capital, available to fund investment.

The relationships represented by the two figures above capture the strong associations between investment spending and economic growth on the one hand, and the saving rate and investment levels on the other. In terms of the first relationship, International Monetary Fund (IMF) data for the period 1960-2019 points to investment spending as the single most important explainer of economic growth over sustained periods across economies. Evidence for this statement lies in the R^2 score of 0.5477. Translated for non-statisticians: more than half of the variation in economic growth is explained by variation in the level of investment. Drilling down to the country level, it is no coincidence that the economies of star growers, such as China and India, are underpinned by high investment rates. More specifically, over the last 20 years, the investment rate for the world's 'headline miracles' of China and India amount to 41.5% of GDP and 31.7% of GDP, respectively, compared to the world average of 24.2% over the past 20 years.

If investment levels play a key part in explaining economic growth, then the next requirement is to identify the driver of investment. Amongst the six factors, each of the five elements arguably plays a role in driving investment. For instance, education and healthcare are likely to bolster labour productivity and boost total returns on invested capital and support marginal returns on invested capital. Demography promotes market size, economies of scale and access to labour. Policy stability and institutional effectiveness support 'rules of the game' and foster the 'animal spirits' singled out by Keynes as a key investment driver. Economic openness provides access to technology, markets, skills and, critically, capital where a country has a saving deficit. However, under all circumstances, the funder or feeder of investment appetite is a single ingredient: savings. Thus, the second key relationship in explaining economic growth is the level of saving, or capital, available to fund investment.

I can only invest with money that has been saved. That is, I can only build a factory or buy equipment if I have a pool of savings.



Put simply, and as shown in every Economics 101 class, if investment drives growth, then:

Saving = Investment; or
S = I

This is demonstrable logically and with empirical evidence. First, consider again the IMF data. Rarely do the social sciences offer such a neat real-world picture of a 'rule'. Saying nothing about the mechanics, saving does equal investment, as shown in the chart on page 29 which maps the relationship between savings and investment over the period 1960-2019.

The logic or mechanics behind the relationship can be put into a simple example to explain why saving equals investment:[7]

I can only invest with money that has been saved. That is, I can only build a factory or buy equipment if I have a pool of savings. If I don't have savings, I can go and borrow the money to fund this investment. But if I borrow from you to fund my investment, then it follows that you have saved.

Note, this simple illustration assumes only a domestic – or 'closed' – economy. If the domestic economy does not have enough savings to fund all investments, foreign capital can fill the saving-investment gap.

Foreign capital that flows into an economy to fund bricks-and-mortar investments tends to be stable and long term in nature and is called foreign direct investment. By contrast, foreign savings attracted into capital markets – including bond and stock markets – is often short term in nature and is termed foreign portfolio investment. While the preference among policy makers globally is for foreign direct investment over foreign portfolio investment, there is evidence to suggest that at least modest levels of foreign portfolio capital are valuable and constructive at the margin to the development of host country economies.

Regardless of whether an economy is open or closed, it must hold that, in the long run, S = I as an identity. Where an economy is open, and experiences inflows and outflows of capital, we can easily extend the 'closed' economic identity of S = I into and open economy identity. In this case, in the long run, and allowing for foreign capital flows:

S + Net Capital Inflows = I; and
Net Capital Inflows = I - S.

Thus, if S < I, we are borrowing from another country that has a savings excess. This explains the mechanism by which foreign savings can fund domestic investment – for as long as the necessary S > I relationship exists in the lender country. Examples of countries that characteristically borrow from the rest of the world to fund their domestic savings deficits include Chile, Egypt, Mexico, South Africa, Turkey and the United Kingdom.

Conversely, if in a home economy's saving rate is higher than its investment need, that is, if S > I, then it will hold that:

S + Net Capital Outflows = I.

In this instance, home country capital would fund investment in other countries. Examples of countries that characteristically have surplus capital to lend to the rest of the world include Germany, Japan, the Netherlands, Norway, Singapore and Taiwan.

[7] For a detailed numerical explanation of the relationship between saving and investment using the expenditure model, see the Investec GIBS Savings Index (Saville et al., 2015).

“If economists could manage to get themselves thought of as humble, competent people on a level with dentists, that would be splendid.”

The Future, Essays in Persuasion
John Maynard Keynes (1931)

Seven

Saving, investment and growth

South Africa’s gross savings rate declined to 14.4% of GDP at the end of 2018, the lowest annual saving rate since 2012.

Fitting our two relationships together completes the chain of evidence to explain the role of the key saving-investment ingredient. If saving leads to investment, and investment is our most potent driver of growth, then it follows that saving is the vital lever of economic growth.

Again, a graphical representation of real-world data supports this observation. In Figure H on the following page, we combine the preceding two graphs to bypass investment and show directly the connection between saving and economic growth. We also break down the regional data and show the relationship between saving rates and economic growth at the country level for the period 1960 to 2019.

Figure H

Median saving rate and economic growth by country (1960 – 2019)

Source: International Monetary Fund (2019); World Bank (2019)

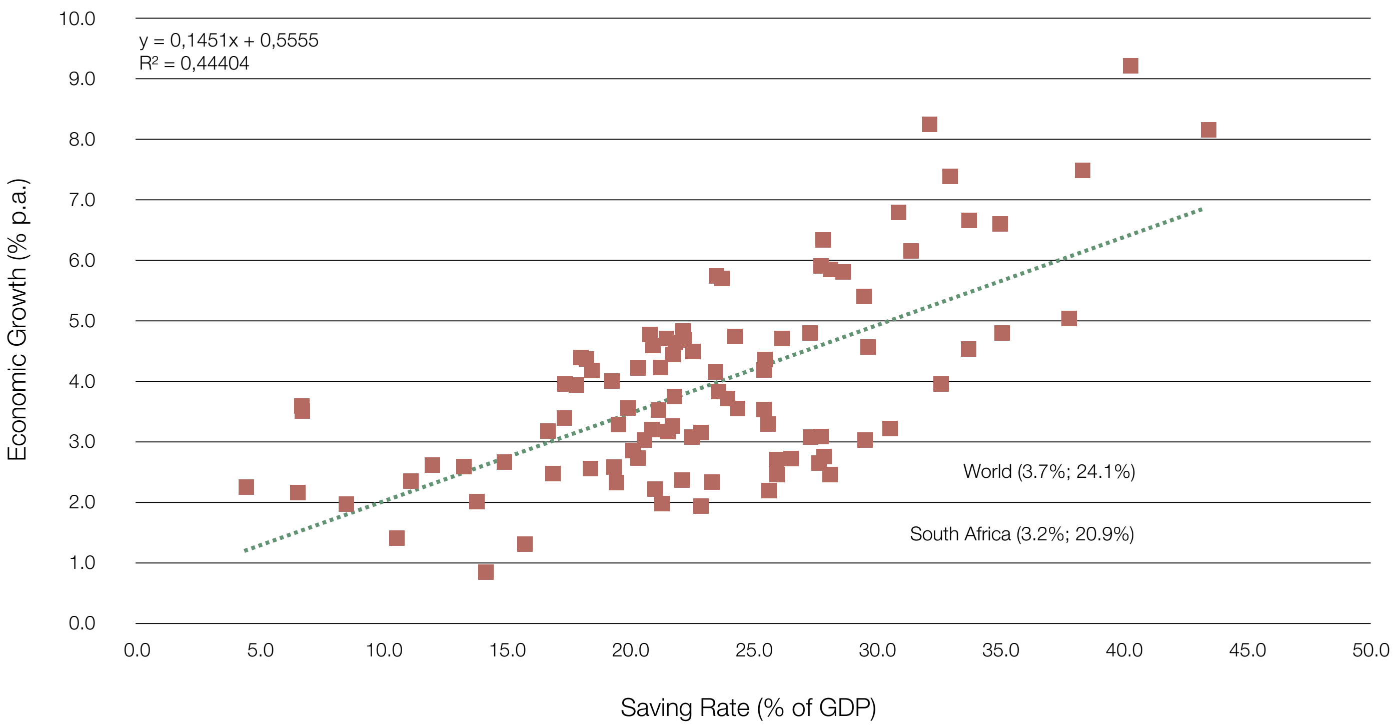
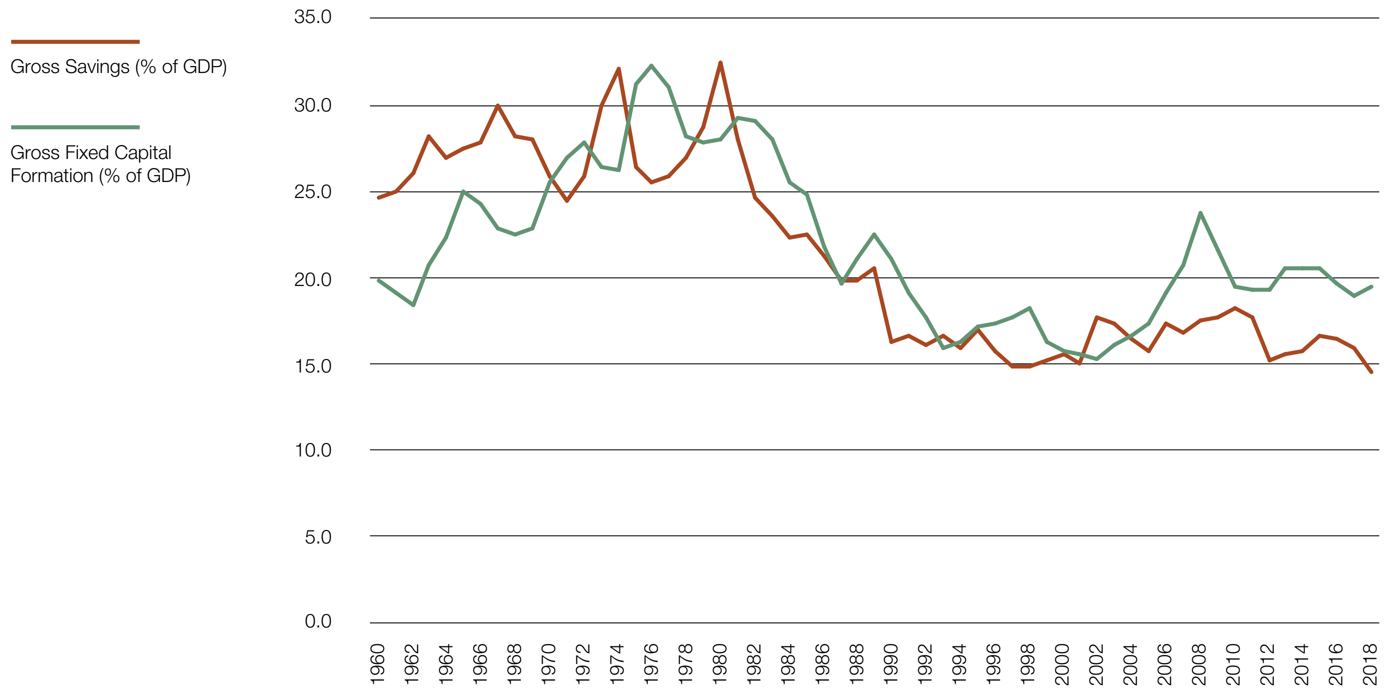


Figure I

Gross savings and gross fixed capital formation (% GDP): 1960 – 2019

Source: South African Reserve Bank (2019)



A key outtake from the figure above is a simple but strong empirical model for the relationship between the saving rate and economic growth:

y = 0,145x + 0.56 where

y = GDP growth (% a year); and
x = saving rate (as a % of GDP)

The evidence suggests that about half of the economic growth rate (44.4%) for the 160 countries over 60 years is explained by the level of investment. The intercept can be interpreted as a base rate for growth, which will occur in the absence of investment spending (0.56% a year); then, each one percentage point increase in investment spending, lifts economic growth by 0.145% a year.

The disaggregated data confirms the positive relationship between the saving rate and economic growth. More exactly, of the 160 countries making up the population, 45 countries enjoyed economic growth that was faster than the world median of 3.7% over the 60-year period. On average, these countries saved 25% of their GDP and grew at 4.7% a year. South Africa's average saving rate of 20.9% fits the trend line well and, as such, goes a long way in explaining the average rate of economic growth of 3.2% a year that was experienced over the 60 years.

Turning to more recent data, the arguments and evidence suggest that the country's structural growth rate will follow from a saving rate that is below the historical average of 20.9%. Indeed, as shown in Figure I on the following page, South Africa's gross savings rate declined to 14.4% of GDP at the end of 2018, the lowest annual saving rate since 2012, and averaged just 16.2% over the past decade.
In line with the close link between saving and investment, the sluggish saving rate corresponds with a below-average investment rate of 19.4% for 2018 and 19.8% over the past decade.

These data series afford two immediate comments. First, the difference between the investment rate of 19.8% and saving rate of 16.2% over the past decade highlights South Africa's reliance on foreign capital, to the tune of 3.6% of GDP a year (viz 19.8% less 16.2%). Second, the investment rate of 19.8% of GDP over the decade can be substituted into the growth equation above to estimate a structural growth rate for the country:

y = 0,145x + 0.56
Growth = 0.145*(19.8) + 0.56
Growth = 3.4%

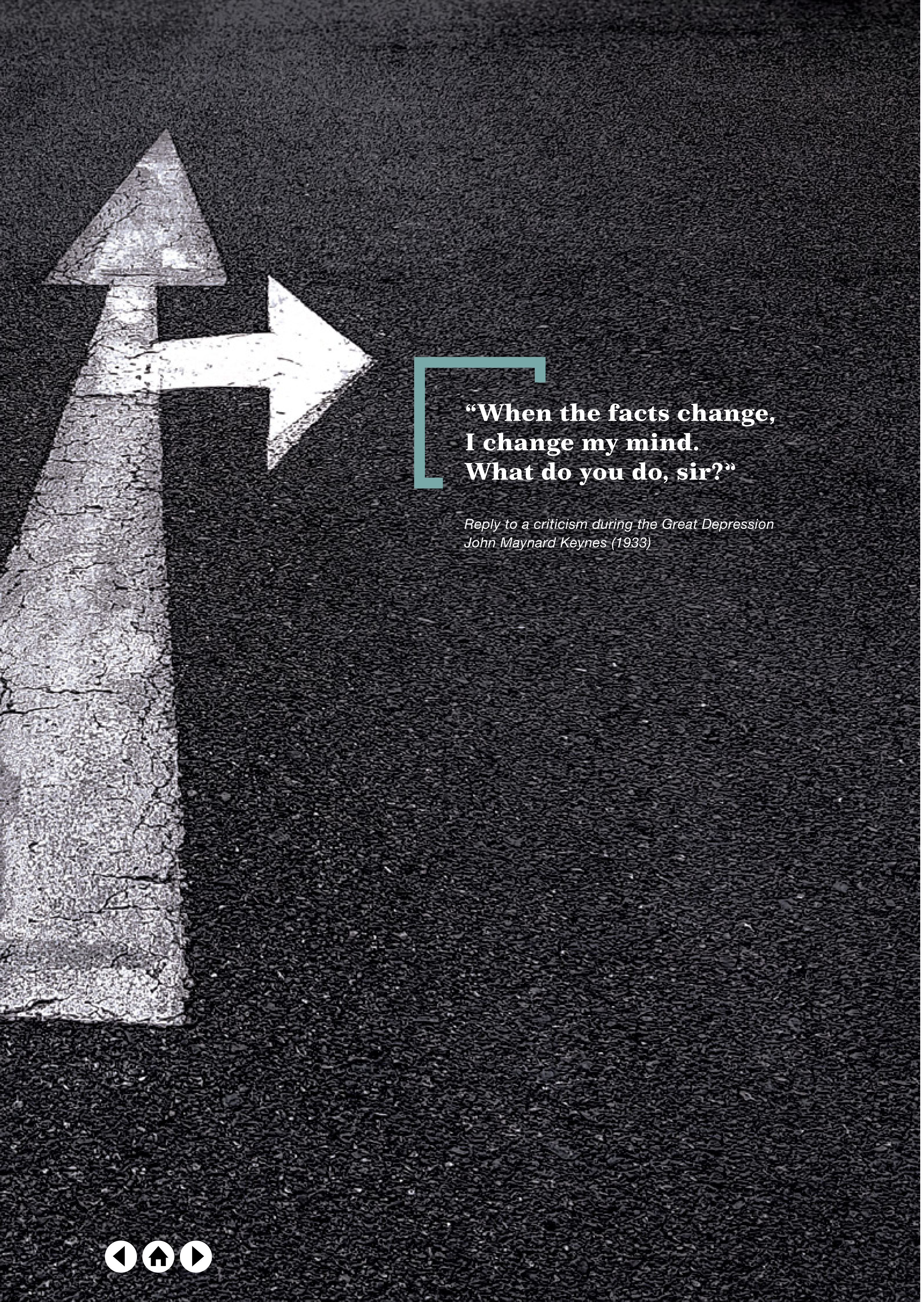
The robust relationship between saving and investment, and investment and growth, provides the basis for pointing to likely growth outcomes given extant saving and investment behaviour. Equally, the importance of these simple but powerful functions extends to the ability to estimate how much saving is needed to set course for a targeted rate of economic growth.

In South Africa's case, that targeted rate is stipulated by government in their *National Development Plan* (NDP), which is sturdily endorsed by President Ramaphosa in his ten-point plan for the economy in which he lays out the 'New Deal'. Explicitly, the targeted economic growth rate under Ramaphosa's administration remains the 5.4% that is proposed under the NDP that was first proposed at the policy launch in 2012.

Plugging the targeted growth rate into the global model:

y = 0.145x + 0.56; whereby
5.4 = 0.145x + 0.56; and rearranging
x = (5.4 – 0.56)/0.145; yields
Saving rate as a % of GDP = 33.4

A saving rate of 33.4%, according to this global model, will support a GDP growth rate of 5.4%. South Africa's extant saving rate of 14.4% of GDP is a far cry from the required rate of 33.4%. In the absence of this 'investment fuel' materialising, any talk of 'fast growth' is folly.



> **"When the facts change,
> I change my mind.
> What do you do, sir?"**
>
> *Reply to a criticism during the Great Depression*
> *John Maynard Keynes (1933)*

Eight

From folly to facts: building the growth equation

No country has consumed its way to prosperity.

Only saving can fund investment, which in all countries, including South Africa, is the most effective and consistent driver of growth. The negative voice amplifies the importance of this relationship: no economy can grow fast with a low saving rate; and no country has consumed its way to prosperity. It goes without saying that the same applies to good leadership.

The New Deal for Jobs, Growth and Transformation, as proposed by Ramaphosa, rests on ten interrelated policy priorities. These include powerful statements on transformation, fighting corruption, fostering education and redressing racial inequality. Included as explicit priorities and implicit necessities are several of the arguments made in this paper. According to Ramaphosa: 'We will have an unrelenting focus on growth and investment … We must be bold and determined. We should be targeting … GDP growth rising to 5% … by 2023.'

Figure J

A new deal for jobs, growth and transformation (2017)

While we have achieved much since 1994, the economy has stalled.

Unemployment is rising, poverty remains widespread, investment levels have fallen, confidence is low and public finances are under pressure.

We need a new deal for jobs, growth and transformation that will turn the economy around and build a more equal society.

The new deal will:

- Ensure effective implementation of the National Development Plan and ANC policy.
- Unite government, business and labour around a common economic programme.
- Be led by an honest, capable and commited team.
- Rebuild confidence in public institutions.

The 10 priorities that should underpin a new deal:

01 Creation of decent jobs
Social partners to lead a national initiative to create at least one million jobs in 5 years.

02 Growth and investment
Restore investor confidence to achieve 3 percent growth in 2018, rising to 5 percent growth by 2023.

03 Meaningful economic participation for the poor
Develop small business, accelerate land distribution and improve agricultural productivity.

04 Macroeconomic policy that promotes growth
Maintain fiscal discipline to ensure resources are for development not debt servicing.

05 Transfer ownership of the economy
Accelerate black economic empowerment through the participation of communities, entrepreneurs and workers, tackling monopolies and increasing competition.

06 Access for all to quality, relevant education
Comprehensive agenda to improve the quality of education in township and rural schools and move with urgency to provide free higher education for the poor.

07 Revitalise and expand manufacturing capacity
Stimulate demand for local goods, diversify exports and reduce electricity and transport costs.

08 Maximise impact of infrastructure build
Boost spending on critical infrastructure over the next five years to R1.5 trillion, bring in private-sector expertise and focus on job creation, localisation, skills development of young artisans and small business development.

09 State owned enterprises as drivers of development
Appoint boards and executives that are committed to transformation, skilled and experienced and incorruptible. Mobilise private capital through strategic partnerships and explore formation of a single 'SOE investment company'.

10 Confront corruption and state capture
Remove individuals who have facilitated state capture, strengthen law enforcement agencies and rebuild critical state institutions. Establish a commission of inquiry and take criminal action against the perpetrators.

Through a new deal, we can build an economy that benefits all

For youth
- Increased opportunities for employment
- Expanded training opportunities
- Better work readiness of school leavers and graduates

For students
- More public resources for free education for the poor
- Increased funding for maths and science

For small business owners
- Lower barriers to entry
- Improved access to supply chains
- More funding and support

For workers
- More decent work
- Greater job security
- Rising income through minimum wage
- Lower cost of living

For emerging farmers
- More agricultural land available
- More sustainable farms through the provision of state support

For corporates
- Renewed dynamism
- Growth, stability and commitment to work for high growth and sustainable returns

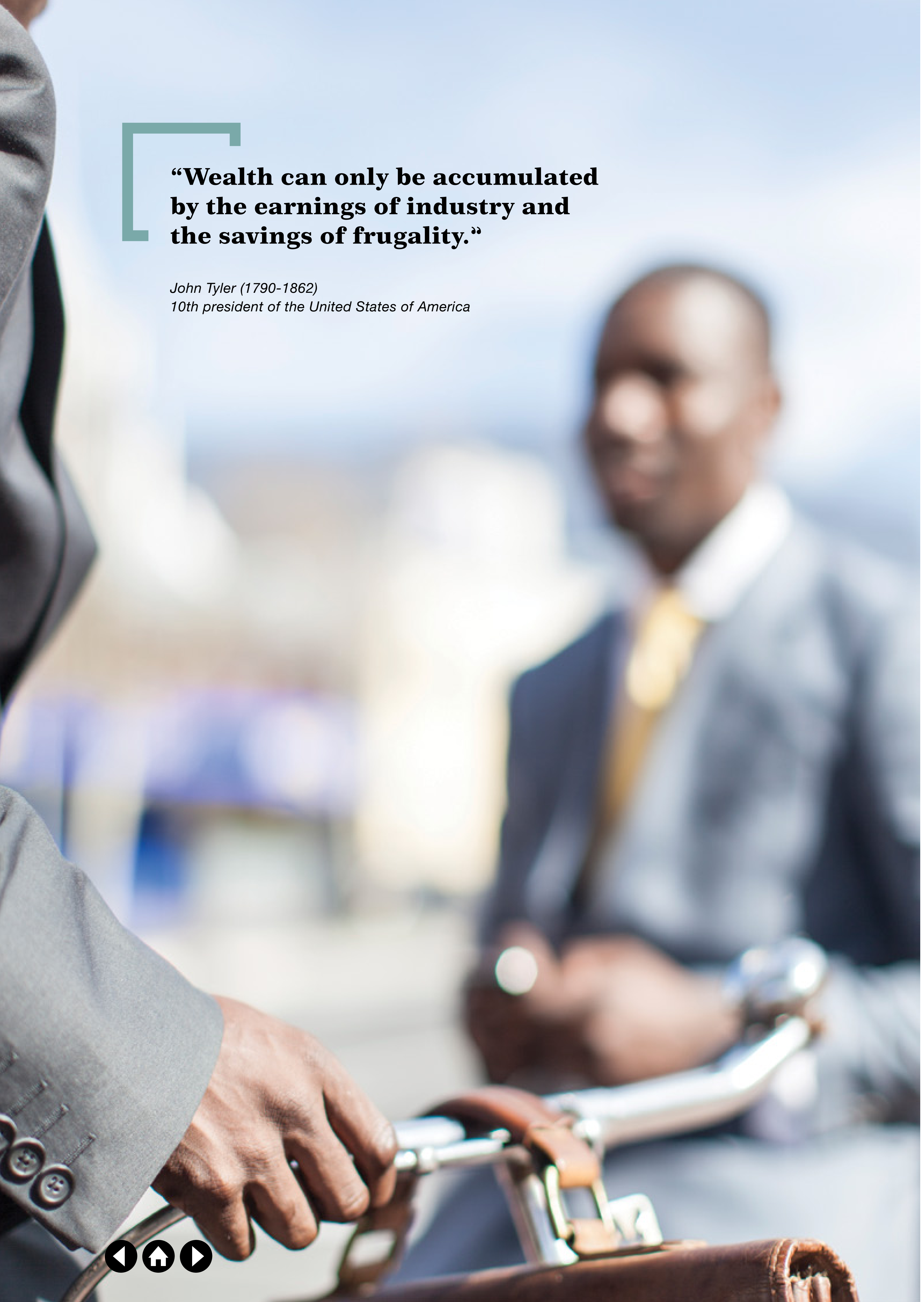
For investors
- A stable climate and firm rule of law
- Economic growth and openness to trade and investment
- A new season of opportunity and attractive risk sharing

For the first time in many years, South Africa has an opportunity to **confront its challenges.**
Let us seize this opportunity and **forge a new deal** for jobs, growth and transformation.

South Africa needs to find the equivalent of 20% of GDP to flow into the savings-investment pool.

Under the priority of job creation, he has called for 'specific measures to increase investment in the productive sectors of the economy'. He describes infrastructure investment as 'the foundation of long-term inclusive growth,' and has set down the challenge to 'boost spending on critical infrastructure over the next five years to R1.5 trillion.' Add to this Ramaphosa's declaration to the Commonwealth Heads of State in April 2018 that South Africa is 'truly open for investment', and his target to attract US$100bn in new investment into the country over the next five years through the deployment of a star-studded Special Investment Envoy.

Under all scenarios, though, South Africa will not grow fast, and cannot achieve transformation, redress inequality, build competitiveness and absorb the unemployed unless investment is forthcoming – from either the South African investment pool or a foreign capital pool. Similarly, all forms of investment must be funded by savings pools. The maths, then, is straightforward. To grow at 5.4%, South Africa requires an estimated investment rate of 33.4% of GDP; which means the economy needs a line of funding – to remove the jargon, let's call this line of funding 'saving' – equivalent to 33.4% of GDP. This required funding rate stands a long way above the saving rate of 14.4%. South Africa needs to find the equivalent of 20% of GDP to flow into the savings-investment pool.



Nine

Saving our way to prosperity: the Investec GIBS Savings Index

The Investec GIBS Savings Index measures and assesses South Africa’s savings performance.

The Investec GIBS Savings Index measures and assesses South Africa’s savings performance. The index draws on three pillars of saving in South Africa to score the overall health of the country’s savings landscape. Published for the first time in 2016, the index is built for the period 1990 to present. The framework and method are set out in detail in Saville et al. (2015) and have been updated quarterly since then.

A score of 100 represents a pass mark for national savings measured against our high-water mark or the average scores of the ‘economic miracles’ and ‘saving stars’. The countries that make up this set are different and diverse, and include Botswana, Chile, Costa Rica, Estonia, Hong Kong, Poland, Taiwan, Singapore and South Korea.

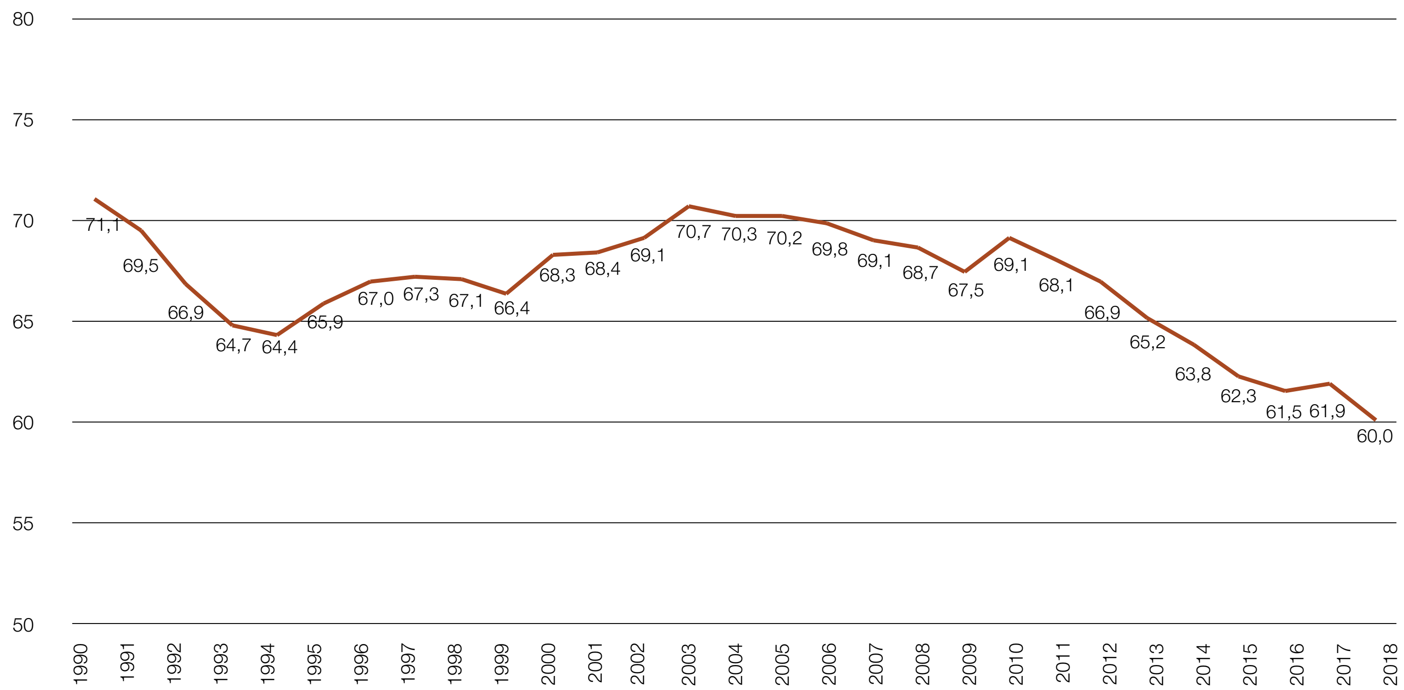
The three elements that make up the Investec-GIBS Savings Index are:

1. A structural stock pillar, which measures the extent of South Africa’s stock of saving which funds the economy’s installed investment base.
2. A structural flow pillar, which measures the extent and nature of the flow of savings into the savings pool that funds investment flows.
3. A structural environment pillar, which assesses and quantifies changes in environmental factors that influence the propensity of South Africa’s economic actors to save. Here components are diverse and include changes in the unemployment rate, financial literacy rates and credit extension, which are combined to form an indicator of the conduciveness of the broader environment to promote savings behaviour.

Figure K

Investec GIBS savings Index: 1990 – 2018

Source: Saville et al. (2015), updated in Saville (2019)



The full series for the Investec-GIBS Savings Index for the period 1990 to present, and the three underlying components that make up the index, are shown on the next page. The results of the index highlight at least two aspects regarding the structure, nature and extent of South Africa's savings.

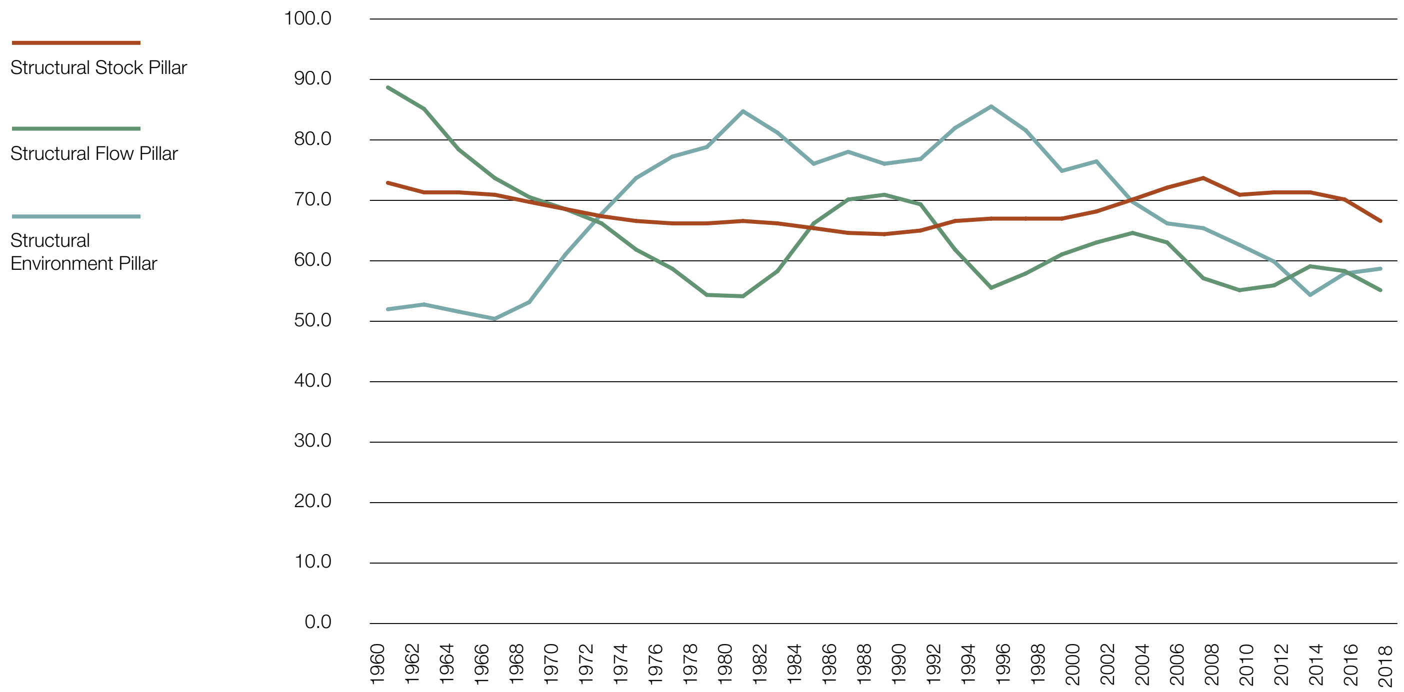
First, there is no instance since inception of the index where any of the three pillars of South Africa's saving structure has achieved or exceeded the pattern and structure achieved among the fast-growing 'economic miracles'. As a result, the composite index for the full series ranges from scores in the low 60s up to scores in the low 70s. The fact that the index at no time prints even remotely near the level of 100 that represents the structure and nature of saving among the 'economic miracles' suggests an inescapable conclusion: no matter how much South African policy makers talk about fast growth, the economy simply does not have the necessary ingredient – savings – to fund the investment needed to feed rapid growth.

Second, notwithstanding ongoing policy proposals, the underlying components of the index have been in a state of stall or decay for the past decade or longer.

Figure L

Investec GIBS Savings Index Pillars

Source: Saville et al. (2015), updated in Saville (2018)



The economy simply does not have the necessary ingredient – savings – to fund the investment needed to feed rapid growth.

Figure M

Investec GIBS Savings Index and economic growth (1990 – 2018)

Source: Saville (2019)

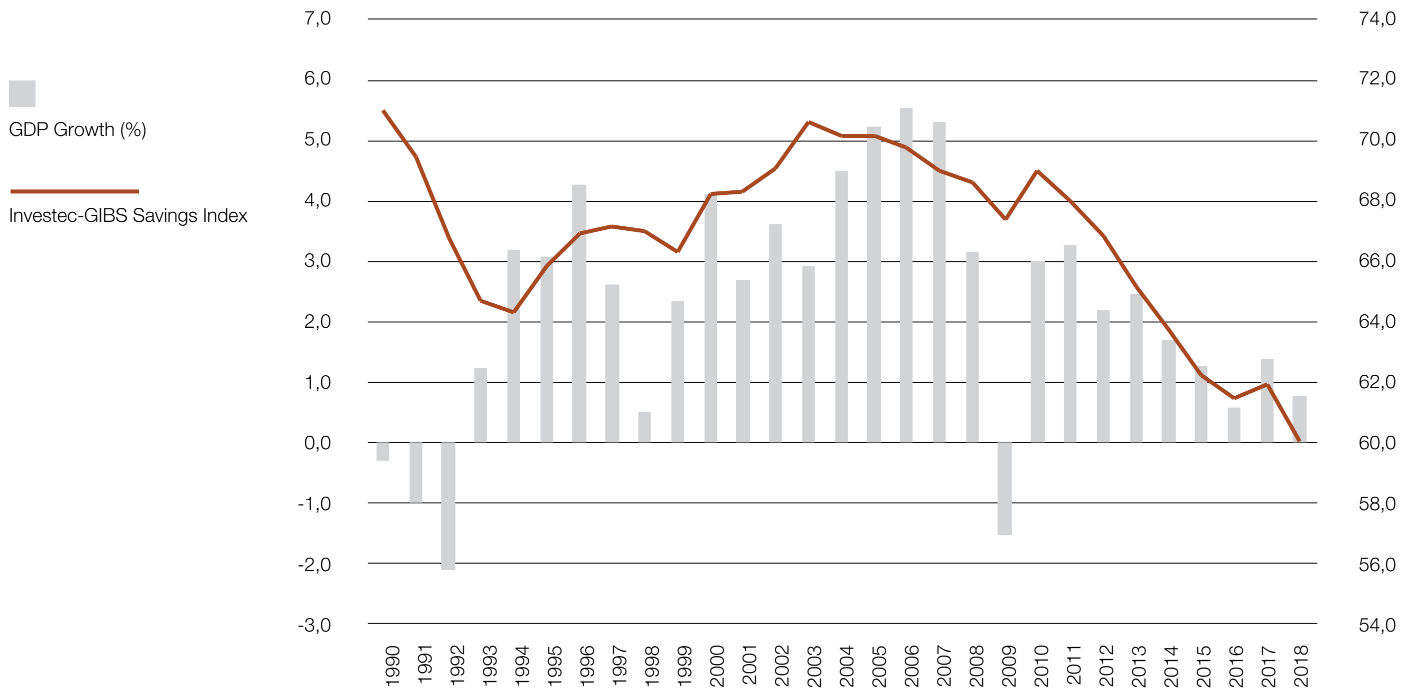
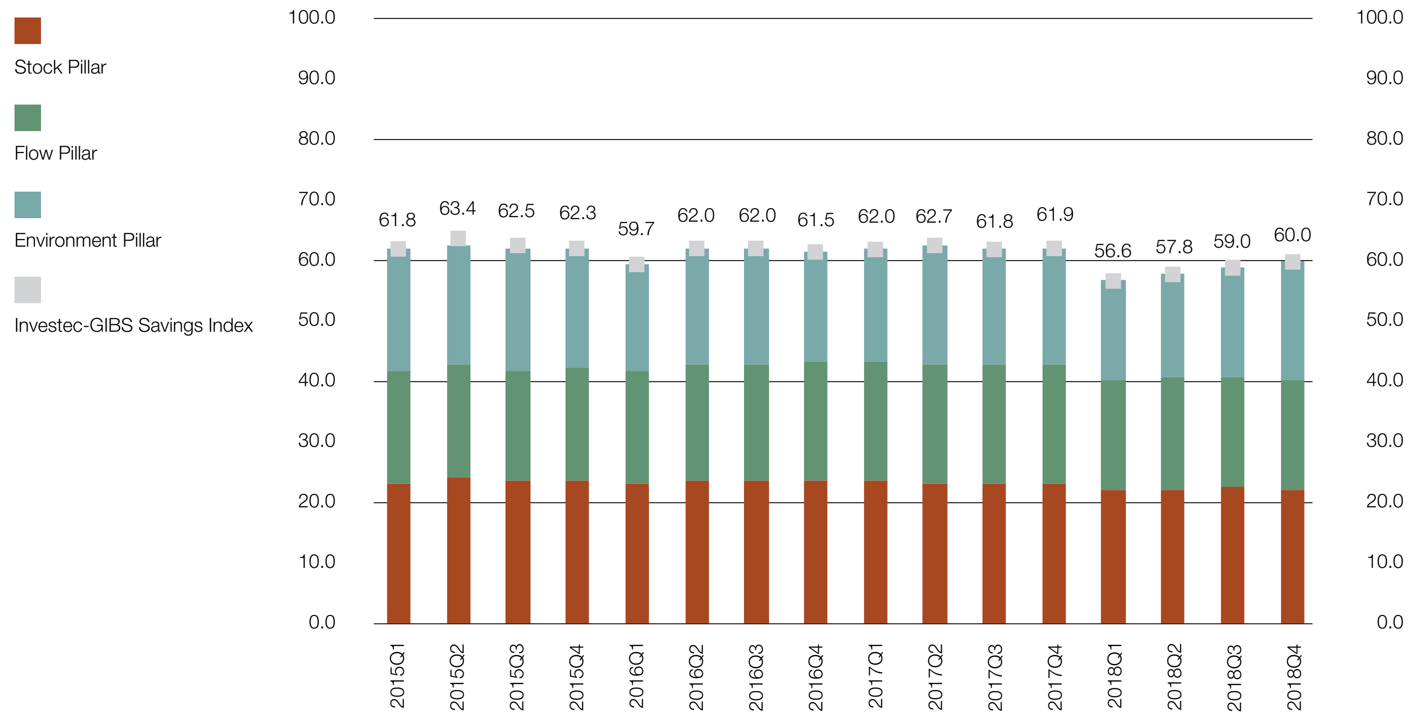


Figure N

Investec GIBS Savings Index quarterly series (2015 – 2018)

Source: Saville (2019)



Plotting the index alongside GDP growth for the 28 years since formation offers a neat visual summary, and reinforces the point that South Africa does not have the necessary saving rate, structure or patterns to support fast growth. The closest the country came to this was in the middle part of the noughties decades. Figure M also highlights that the steady decay in the state of savings in South Africa over the past decade corresponds closely with the country's increasingly disappointing economic performance. The close relationship between the Investec-GIBS Savings Index and economic growth lends credence to the role and influence of the saving rate, saving patterns and saving behaviour on South Africa's economic performance.

That said, there is no doubt a feedback loop at play, whereby persistently low economic growth rates translate into increasing poor savings outcomes.

The index figure for the 2018 calendar year marks a low-point for the index since it was first built in 1990. Perhaps the comfort is cold, but it is worth noting that the end-of-year figure of 60.0 does show some recovery from the all-time low of 56.6 that was recorded at the time of Jacob Zuma's resignation in February 2018.

While Cyril Ramaphosa has a big macroeconomic job on his hands, and there is apprehension that the 'new deal' might be a 'false dawn', the more granular evidence modestly moderates some of this anxiety. Based on quarterly data, the Investec GIBS Savings Index reached an all-time low of 56.6 points in the first quarter of 2018, coinciding with the end of the Zuma administration. Since then, with Cyril Ramaphosa's presidency, the index has advanced each quarter, reaching 60.0 points in the fourth quarter of 2018.

The final print for 2018 is materially better than the first print of 2018. However, it remains a far cry from the levels that correspond with sustained, elevated and inclusive growth that translates into transformation and country prosperity. In this vein, an index of security, governance, prosperity and welfare indicators published (Sguazzin, 2019) shows South Africa slumped to 88th out of 178 nations in 2018 from 31st in 2006. On this measure, South Africa's performance deteriorated more in the past 12 years than any other nation not at war, with South Africa's decline in ranking superseded by conflict-riven countries such as Mali, Ukraine and Venezuela. Whereas a decade earlier South Africa ranked alongside Portugal and Slovenia, its peers now include Jamaica and the Philippines. There can be little doubt, South Africa has much work to do to make up lost ground and to get into the business of harnessing opportunity.

“Opportunity is missed by most people because it is dressed in overalls and looks like work.“

Thomas A. Edison (1847-1931)
Inventor

Ten

How much is enough?

Households are the place to search for remedies to the saving shortfall.

If the South African economy is savings starved, which chokes investment, where does the savings bottleneck reside? Three entities can save: households, firms and government. On this score, the evidence is unambiguous: firms in South Africa already save a substantial amount relative to global peers. Conversely, developmental demands and social welfare needs mean that, by its nature, the public sector is a dis-saver. Thus, if we have any ambition of lifting the saving rate to fuel investment flows, the argument points to households as the place to search for remedies to the saving shortfall.

Further, the data makes it clear that not only is the household saving rate in South Africa low, but it steadily declined over the last 20 years, stabilising in the shallows just above zero. For all intents and purposes, the household sector in South Africa flirts with life as a ‘deficit spender and dis-saver’. By comparison, data from the Organisation for Economic Co-operation and Development (OECD) show that private households consistently saved between 8% and 10% of their disposable income over the last two decades (Ventura, 2018) and China’s household saving rate has averaged around 20% of GDP since 1990.

Figure O

Gross domestic savings by household, coporate and government sectors (% GDP): 1995 – 2018

Source: Data derived from South African Reserve Bank (2019)

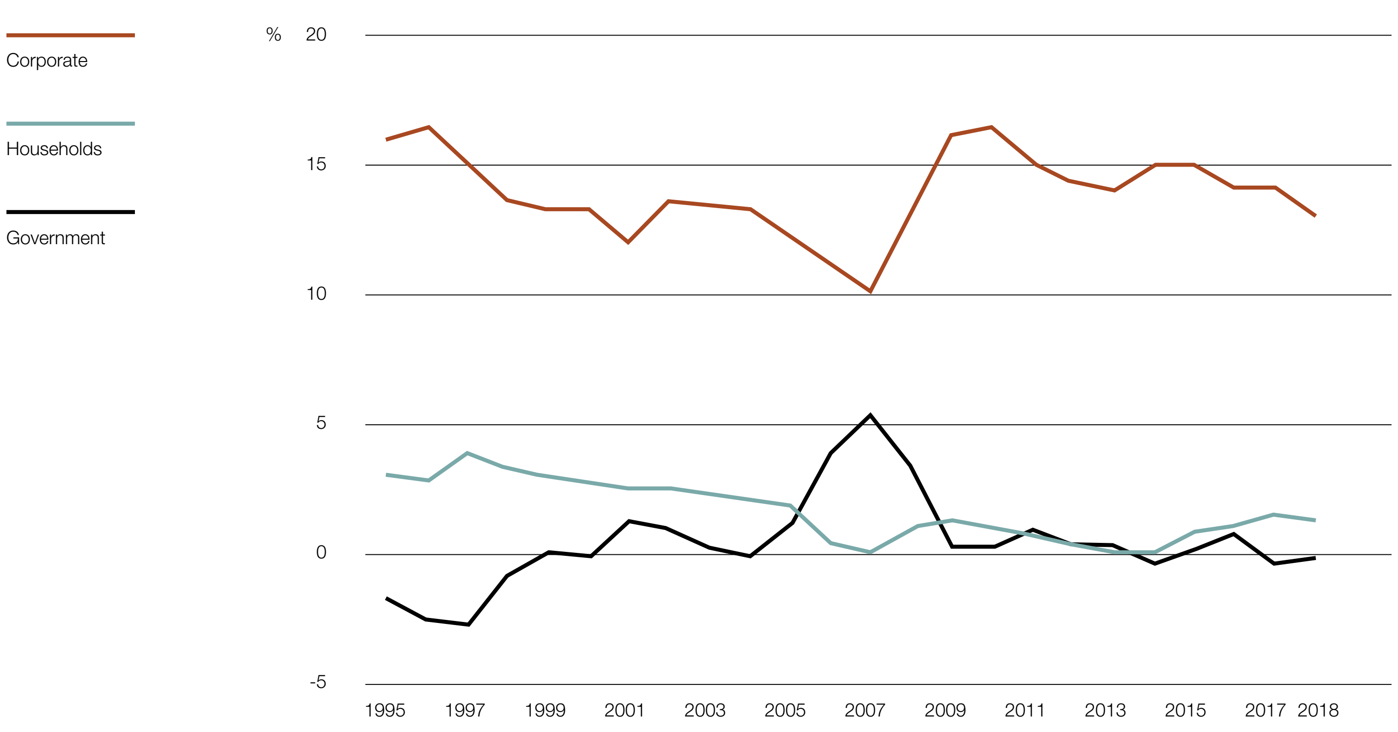
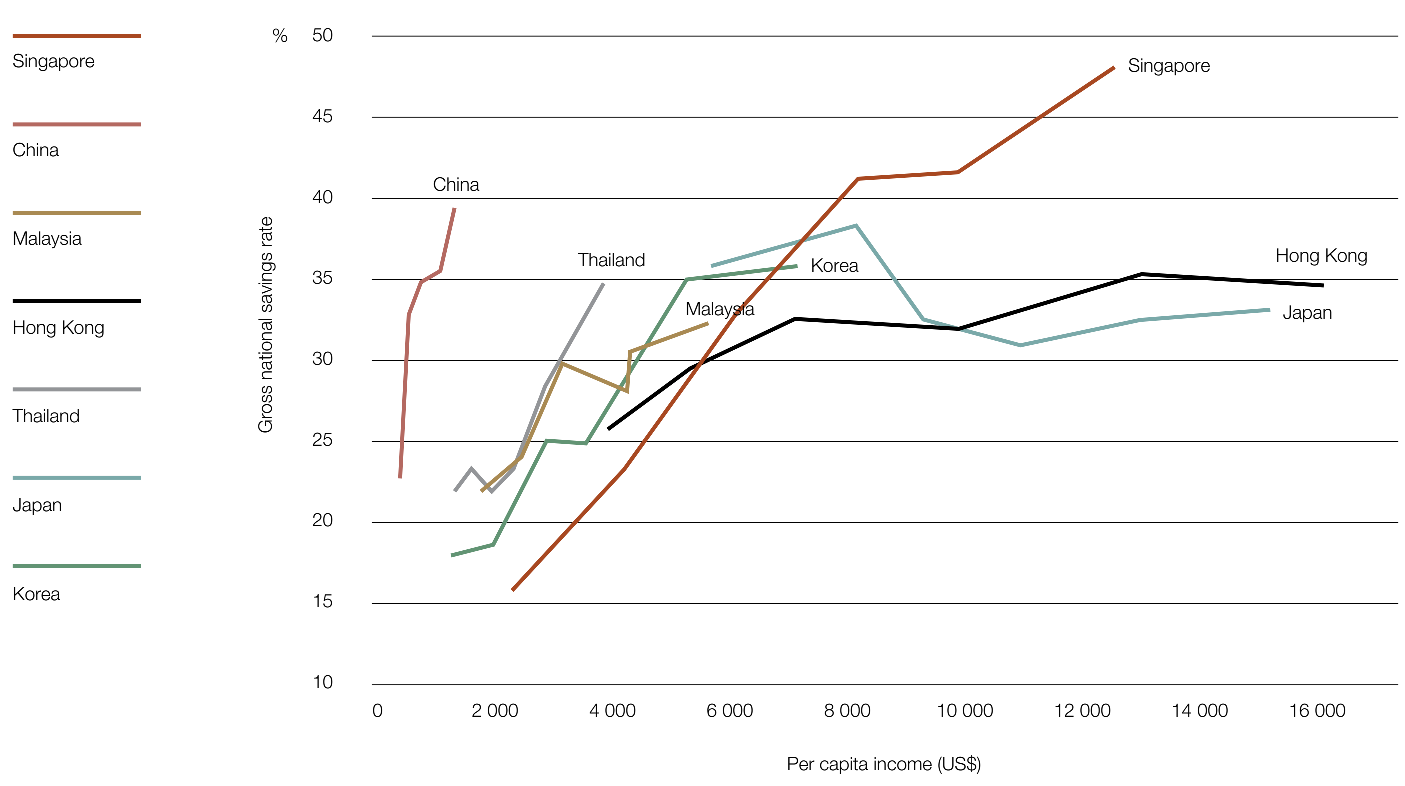


Figure P

High savings at low income levels

Source: Kraay (1997)

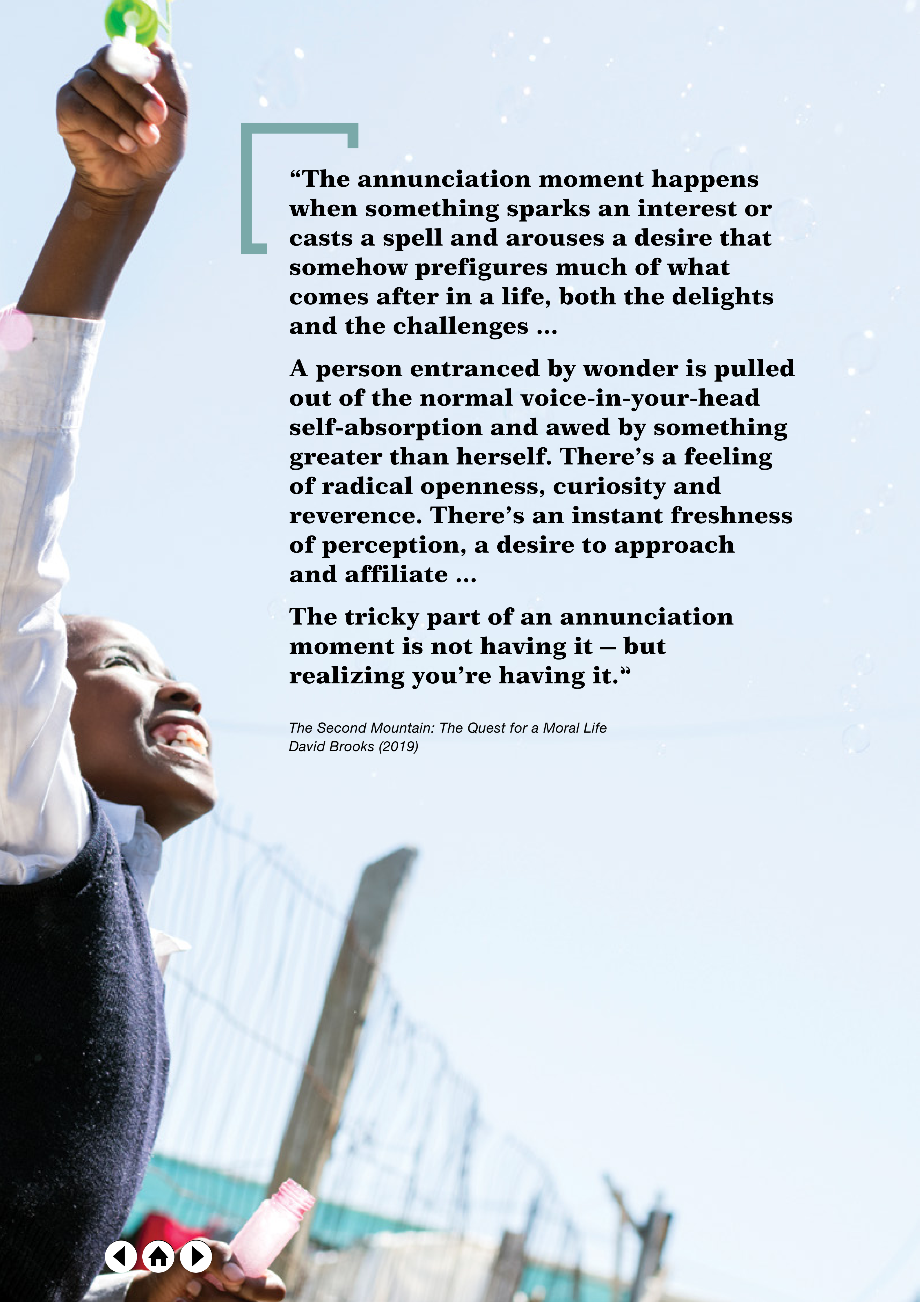


As an aside, proposals to lift the South African household saving rate are frequently met with protests that income levels in the country make this an impossible mission. However, evidence from other countries challenge this complaint. Kraay (1997), for example, presents various country cases of high savings rates being achieved in low-income environments. The precedent set by these country cases suggest that low income levels are not the constraint to elevated rates of saving and, by the same convention, it might be saving that leads income, rather than income that leads saving.[8]

Thus, it is likely to be in the household sector that efforts have the most upside in terms of boosting saving behaviour and lifting the country's saving rate as a basis for driving investment and fuelling sustained and elevated growth. However, this path to prosperity is not just a function of how much a country saves; it is also a function of the manner and effectiveness with which saving is channelled into investment. If households shift spending patterns from funding consumption that feeds instant gratification to instead the financing of productive investments, there is a powerful set of spill over, multiplier and linkage effects that offer the prospect to build smaller businesses, promote employment intensity and unwind industrial concentration. Changing household saving behaviour offers the prospect for elevated growth that is inclusive and transforming.

Changing household saving behaviour offers the prospect for elevated growth that is inclusive and transforming.

[8] See Saville et al. (2015) for greater comment on this still-unresolved debate in the saving-investment literature.



"The annunciation moment happens when something sparks an interest or casts a spell and arouses a desire that somehow prefigures much of what comes after in a life, both the delights and the challenges …

A person entranced by wonder is pulled out of the normal voice-in-your-head self-absorption and awed by something greater than herself. There's a feeling of radical openness, curiosity and reverence. There's an instant freshness of perception, a desire to approach and affiliate …

The tricky part of an annunciation moment is not having it – but realizing you're having it."

The Second Mountain: The Quest for a Moral Life
David Brooks (2019)

Eleven

Annunciation: where reality dawns

South African adults score below the world average in financial literacy, with fewer than one-in-two adults showing a functional command of financial concepts.

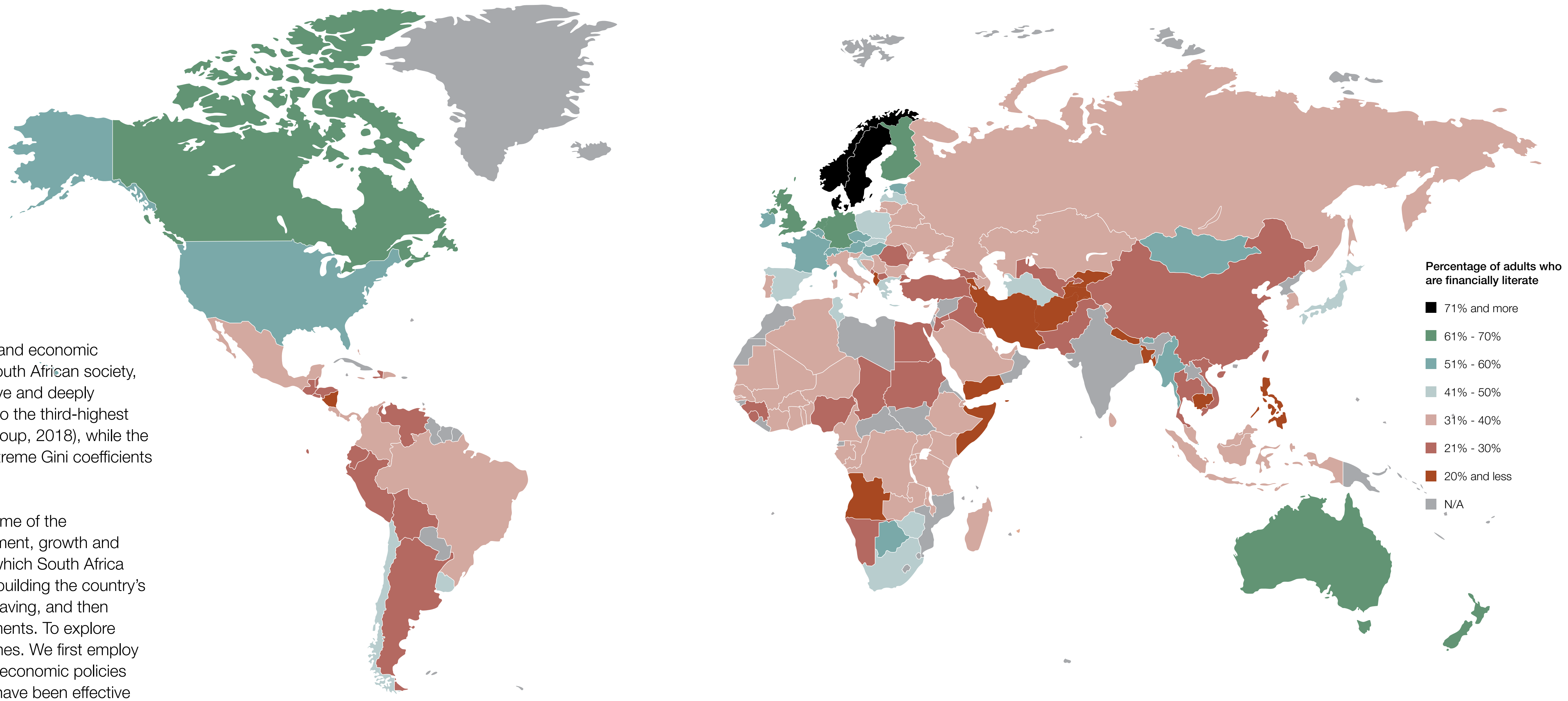
To achieve an economic growth rate of 5.4%, the South African economy requires an investment rate – and in turn a saving rate – of more than 30%, and to be more exact, 33.4%. The experiences of 160 countries over 60 years flags South Africa's extant saving-investment gap as a key ingredient in explaining entrenched economic malaise and ingrained social inequity. This begs a simple, yet fundamental, question: 'How do we fill this gap?'.

Any solution must consider the complexity of South Africa. True, we are impressive in parts of our economic makeup. Returning to an earlier point, emblematic of our financial sophistication is the consistent rating of our banks among the world's elite. The Lafferty Banking 500 study (Lafferty Group, 2018) uses a combination of financial and non-financial disclosures of 500 banks in 72 markets to assess the quality of the organisations and their respective business models. Seven South African banks were ranked in the global top 500. Only eight banks worldwide achieved a five-star rating, one of which is a South African bank, while the average star rating for banks in South Africa was 3.7 compared to banks in the United Kingdom which scored an average of 3.5, Canada 2.9, Germany 2.8 and the United States 2.8. At the same time, South African adults score below the world average in financial literacy, with fewer than one-in-two adults showing a functional command of financial concepts such as inflation, compounding, interest rates and diversification of risk.

Figure Q

Financial literacy among adults (%)

Source: Data derived from Standard & Poor's (2014); map produced by How Much at bit.ly/2GnX9Mz (2019)



As noted earlier, the type of social and economic disparity is exhibited throughout South African society, and the characteristics are extensive and deeply entrenched. South Africa is home to the third-highest rated bank in the world (Lafferty Group, 2018), while the country carries one of the most extreme Gini coefficients on the planet.[9]

In the next chapter, we draw on some of the world champions of saving, investment, growth and transformation to identify ways in which South Africa can square up to the challenge of building the country's saving rate, especially household saving, and then driving this saving into new investments. To explore this, we adopt two broad approaches. We first employ a 'top down' lens to identify macroeconomic policies or country-level programmes that have been effective in boosting a country's saving rate. We then engage a 'bottom up' lens to identify microeconomic instruments and initiatives that are increasingly informed by the burgeoning field of behavioural economics for ways to lift saving rates at a microeconomic level, in other words, at the level of households and individual, and perhaps also firms and organisations.

[9] Data sourced via the World Bank (2018).

“Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits

– a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities.”

General Theory of Employment, Interest and Money
J.M.Keynes (1936, 161-162)

Twelve

Thinking big: country-level policies and proposals

What would do the trick for South Africa? There are examples all around the world, and South Africa can learn from these country cases.

Every ‘rich’ nation was ‘poor’ at some stage. Likewise, not any of the ‘economic miracles’ or ‘saving stars’ were born with a saving spoon in its mouth. In which case, how did they achieve elevated rates of saving and investment off low income levels? What would do the trick for South Africa to transform from bad spenders to effective savers and wise investors? There are examples all around the world, and South Africa can learn from these country cases. On the following pages we attempt not to suggest models, but to sample a set of well-studied macroeconomic examples that sit at different points on the policy spectrum, namely Chile, Singapore and South Korea. Chile under the ‘Chicago Boys’ adopted a market-based solution; South Korea put in place firm-handed state-led interventions; and Singapore chose a path somewhere between Chile and South Korea.

Chile

Robust supporter of market-based solutions with firm rules

Resource-rich, export-driven, thousands of miles from the developed economies of North America and Europe, and scarred by the legacy of an oppressive regime, the copper-producing coastal nation of Chile shares some notable traits with South Africa. Chile also provides an illuminating natural experiment on national savings. Specifically, it was reforms in the early 1980s which made the former Spanish colony a poster child for domestic saving. Chile's saving rate grew from a staggeringly low rate of 2.1% of GDP in 1982 to 26.4% of GDP in 1995. The rate has remained above 20% of GDP ever since, notwithstanding a series of commodity price boom-and-bust episodes[10]. How did Chile's leadership persuade people to put money away for the future? In short, they didn't.

Under the military dictatorship of Augusto Pinochet, Chile had for decades operated a pay-as-you-go social security system. Under this scheme, current workers financed the retirement payments to current pensioners. The surplus of the funds (contributions minus benefits) were transferred to government coffers for investment. With time, price inflation, creeping benefit and some bad investment decisions, the ratio of employees' contributions to pensioners' claims became unsustainable. In 1955, there was one pensioner for every 12.2 active affiliates. By 1980, this ratio had changed to 2.5 active affiliates for every pensioner (OECD, 1998). With this dire state, a 1981 law privatised the programme, establishing a fully-funded, defined-contribution individual accounts system (Soto, 2017). Under this pension fund reform, all formally employed workers were required by law to save 10% of their pre-tax income. This was automatically deducted by employers from payrolls, along with an additional deduction of 2.0%-3.0% of payroll to cover the administration costs of the accounts.

Chile's saving rate grew from a staggeringly low rate of

2.1%

of GDP in 1982

to

26.4%

of GDP in 1995.

[10] Data source: World Bank (2018).

Figure R

Chile: per capita income (US$)

Source: World Bank (2018)

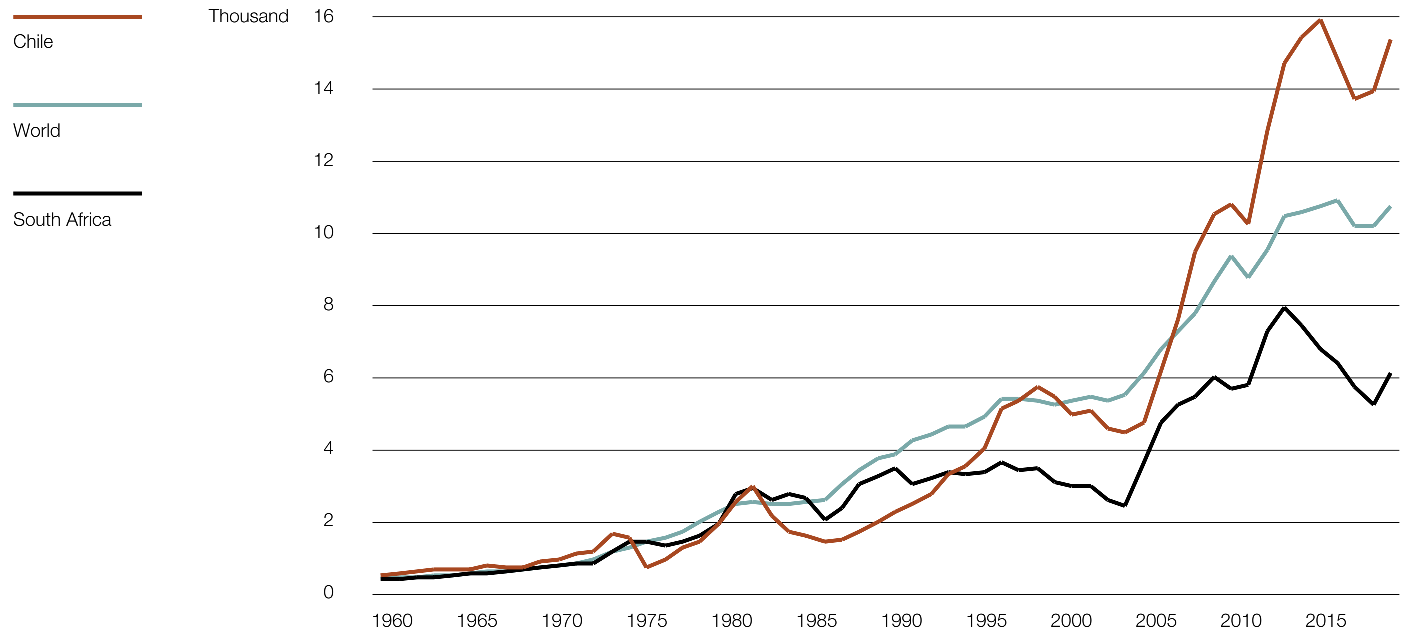
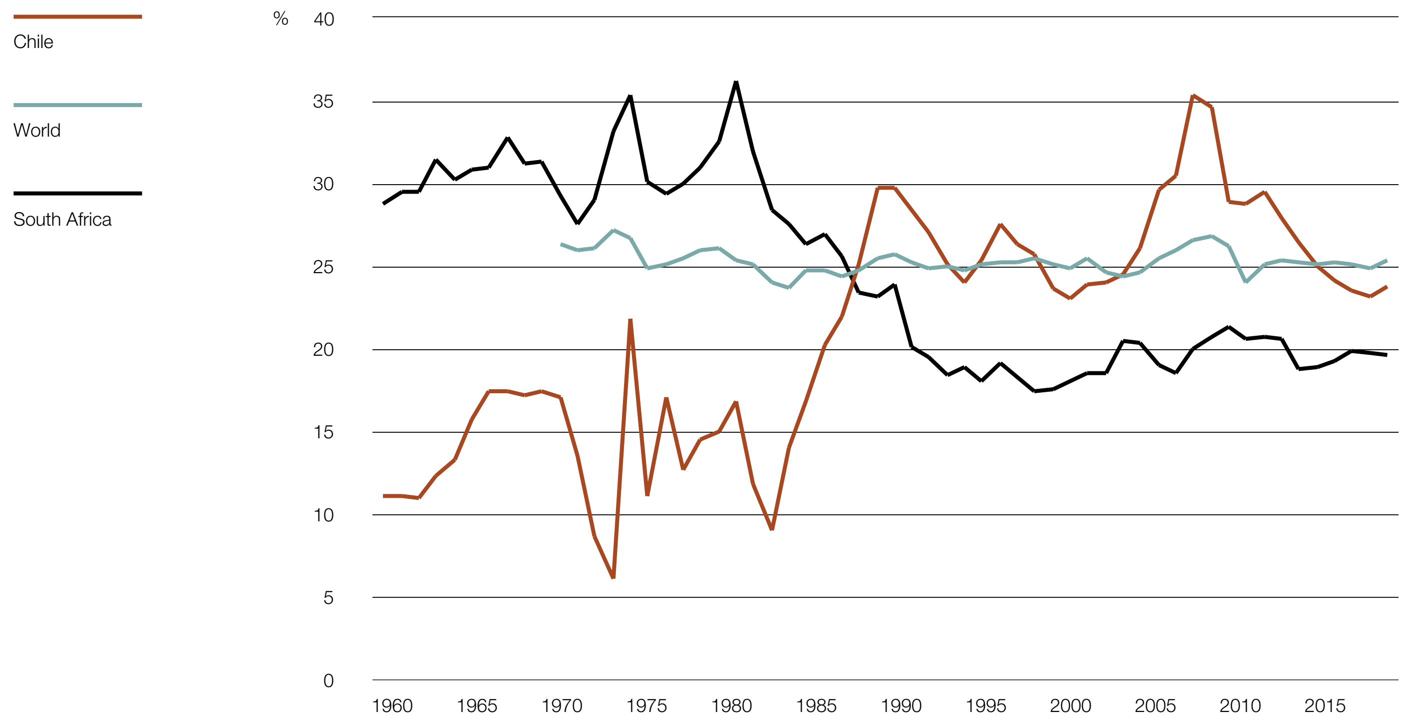


Figure S

Chile: gross savings (%GDP)

Source: World Bank (2018)



The net effect was a material and sustained hike in Chile's savings rate, driven by a material contribution from households to the national savings pool.

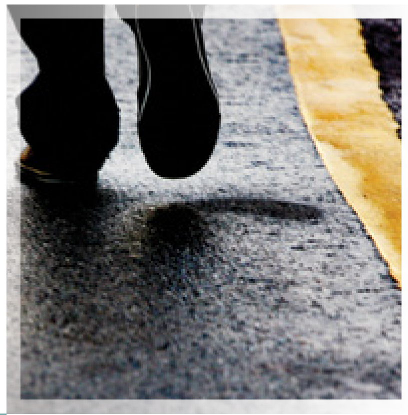
Notably, the legislative scheme did give employees one choice: members could instruct their employers on which of several government-approved private pension fund administrators they wished to invest their individual retirement savings. Known as *Administradoras de Fondos de Pensiones* (AFPs), these institutions were initially limited to a single investment fund with tight restrictions on permitted assets. These rules were gradually expanded for additional funds with higher risk profiles and a larger range of permitted asset classes.

The net effect was a material and sustained hike in Chile's savings rate, driven by a material contribution from households to the national savings pool. By the end of the 1980s, Chile's saving rate had lifted to 24.0% of GDP. Notably, it was not the household sector alone that contributed to this change, Chile also undertook corporate and fiscal reforms that collectively contributed to this spectacular transition in the space of a decade. Over the course of the 1980s and 1990s, Chile received foreign investment flows that added an average of 6.0% a year to the domestic capital pool, with two-thirds of this made up of short-term capital flows, or 'hot money'. However, after the 1982 financial crisis, all foreign portfolio capital was subject to a Tobin tax, under which 30% of all loans and bank deposits had to be placed for one year in a non-interest-paying account at the central bank.

This had the effect of cooling down 'hot money' and ensuring short-term capital flows became stickier and more stable in contributing to the country's long-term savings pool.

As noted, though, it is the household sector we are most interested in, and so we will keep our focus on this aspect. It goes without saying that no system is perfect. Despite the earlier successes, by 2004, several cracks had appeared, as explained by a Chilean senator in a Santiago conference that went on to precipitate important system reforms. The so-called 'seven deadly sins' of Chilean pensions included: inadequate coverage, low terminal pensions, high administrative costs, high fiscal cost, gender discrimination, low levels of competition among providers and political affiliations of the AFP's boards of directors (Barr, 2012).

A 2008 reform addressed several of these failings by redressing circumstances where individuals had low lifetime incomes, incomplete contribution timelines or were informally employed. One way in which these reforms were affected was by the addition of a means-tested element. The so-called *Sistema de Pensiones Solidarias* is a tax-funded solidarity pension for older citizens who lack a private pension of a defined minimum level (Mesa-Lago and Bertranou, 2016).



The initial success of the old system points to a framework in which citizens are not encouraged to save, but rather required to save.

Perhaps the most critical flaw in the initial system was the low levels of competition among AFPs that had become the characteristic of an ossified system. A tender process was introduced in 2010. This required funds to tender every two years for the right to manage all income from new workers entering the workforce. Disappointingly, the result has been the addition of just one fund manager since 2010, and only one fund tendered in the 2017 iteration. Although benefits have included economies of scale and market power, costs have included lack of member choice and reduced competition inside the system, as well as an absence of new entrants.

In addition to market concentration, the quality of service provided by AFPs to savers has been damaged by the nature of the tender process. Given the goal to cut costs to savers, the tender process emphasises members fees as a key criterion for selection. The predictable upshot is that, once they have won a tender, AFPs feel pressure to strip down their operations. In an analysis of the Chilean system, an Australian study found this created a 'race to the bottom' and led AFPs to 'reduce the resources they devote to internal investment management, reduce the quality of their administrative functions, and reduce the quality and range of member services.'[11]

Despite the long-range success of the system, 2017 saw the rise of major protests in Chile against the AFP system. The 'No More AFP' movement demanded a return to a publicly run pension scheme, accusing the private administrators of earning disproportionately high fees. The *Financial Times* cites the major problems with the model as an 'ageing population, inadequate contributions and a large informal economy' (Mander, 2018).

Ironically, it has fallen upon the younger brother of the economist who designed the AFP system to reform it. President (for the second time) since March 2018, Sebastián Piñera has made noises suggesting older brother José's creation would not last much longer. As noted by Mander (2018), the way he achieves this may have global significance: 'If Piñera's reforms are successful, then the countless countries around the world with ageing populations that face disturbing pension shortfalls may yet continue to look to Chile as an example.' Regardless of the resolution of Chile's new pension reform problems, the initial success of the old system points to a framework in which citizens are not encouraged to save, but rather required to save.

[11] Note via The Association of Superannuation Funds of Australia (2017) on the Chilean pension tender model.

Singapore

A welfare state that works

Another national saving model much lauded among economists is the Singaporean system. As John Fund (2015) noted in the *National Review*:

> *By embracing free trade, capital formation, vigorous meritocratic education, low taxes, and a reliable judicial system, Lee raised the per capita income of his country from $500 a year to some $52,000 a year today. That's 50 percent higher than that of Britain, the colonial power that ruled Singapore for 150 years. Its average annual growth rate has averaged 7 percent since the 1970s.*

A 2010 study showed more patents and patent applications from the small city-state of Singapore (population 5.6 million) than from Russia (population 140 million). When Lee Kuan Yew became prime minister in 1959, his priority was to reimagine Singapore's economy. At the time, Singapore 'was a swamp, with no natural resources, and it even had to import its drinking water from Malaysia' (Fund, 2015).

At the heart of Singapore's success are policy innovations that have taken important steps toward lifelong asset building, beginning very early in life. These innovations include EduSave, the Baby Bonus, Child Development Accounts and related asset-building incentives. At times, the forced saving rate has been as high as 50% of income. Today, employees under 55 years of age must set aside 20% of their wages and employers must contribute another 17%. These funds go into accounts where they grow through time until specific needs arise. For example, one of the uses for these savings is housing. About 90% of Singapore's households are home owners – the highest rate of home ownership in the world.

At the heart of Singapore's success are policy innovations that have taken important steps toward lifelong asset building, beginning very early in life.

Figure T

Employer and employee contributions to Singapore's Central Provident Fund

Source: www.cpf.org.sg

Employee's age (years)	**Contribution Rates from 1 Jan 2016** (for monthly wages ≥ $750)		
	By Employer (% of wage)	**By Employee** (% of wage)	**Total** (% of wage)
55 and below	17	20	37
Above 55 to 60	13	13	26
Above 60 to 65	9	7.5	16.5
Above 65	7.5	5	12.5

With roots that can be traced back to the British colonial era, Singapore's Central Provident Fund (CPF) is built on the recognition of three basic needs we all have throughout life and that carry from working life into retirement: a roof over our head, access to reliable healthcare and a steady income to look after daily expenses.[12] To this end, pension fund contributions are mandated by law, and are made to three distinct accounts which pay varying interest rates. The Ordinary Account (OA) can be used by savers to buy housing, pay insurance, fund investments and finance education. The Medisave Account (MA) is funded to look after healthcare expenses. The Special Account (SA) can be used to fund old-age and retirement-related financial products. A fourth account, the Retirement Account (RA), is automatically opened for individuals at age 55. At this age, savings from the SA and OA are shifted to this fourth pot, which functions as a life annuity scheme.

Government steps up, alongside employees and employers. The system is publicly administered, and the CPF Board is a statutory body established under the Ministry of Manpower that is responsible for investing contributions. The CPF offers a risk-free interest rate of up to 5% a year. A small portion of members take up the option to personally create their own portfolios from a selection of 200 investment funds. An intermediate option, to be known as the Lifetime Retirement Investment Scheme (LRIS), is being designed by the CPF Board. This will target CPF members that lack the financial expertise to manage their own portfolio but that are prepared to take on some additional risk. To provide this solution, the LRIS will offer several simple, low-cost, passively managed options for Singaporean savings.

[12] Note via the Central Provident Fund Board (2018).

Figure U

Singapore: Per capita income (US$)

Source: World Bank (2018)

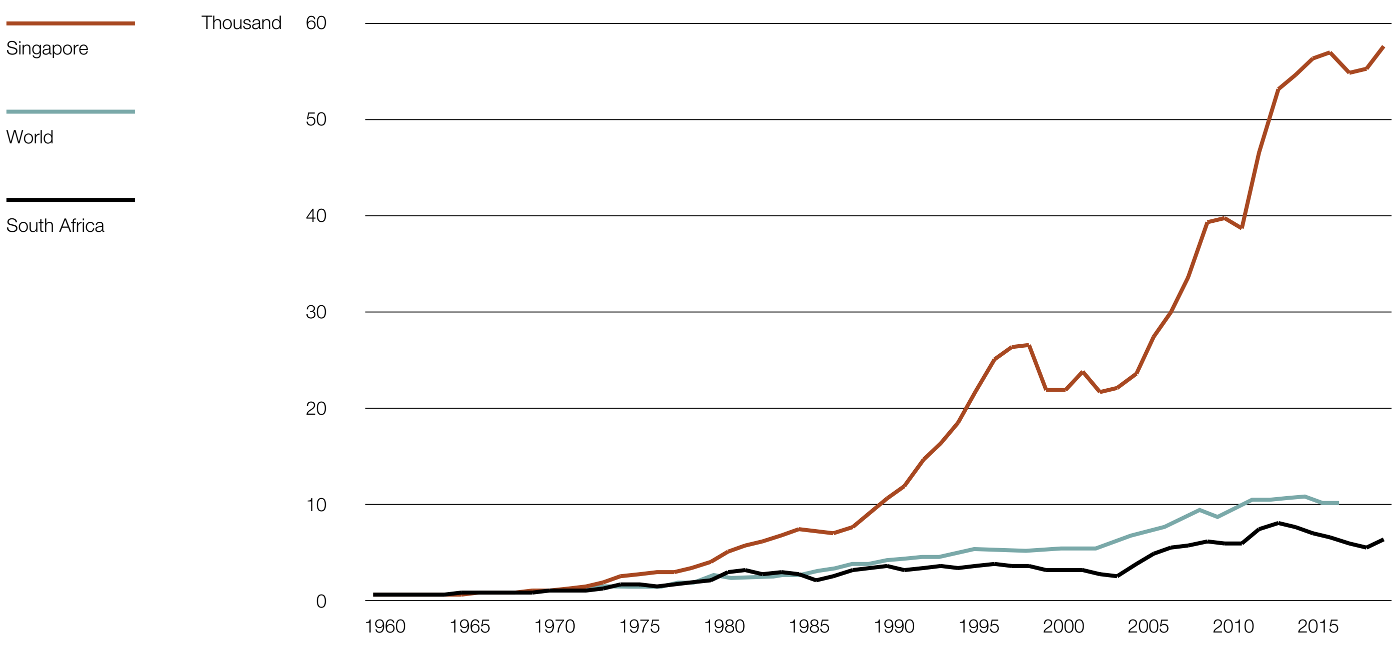
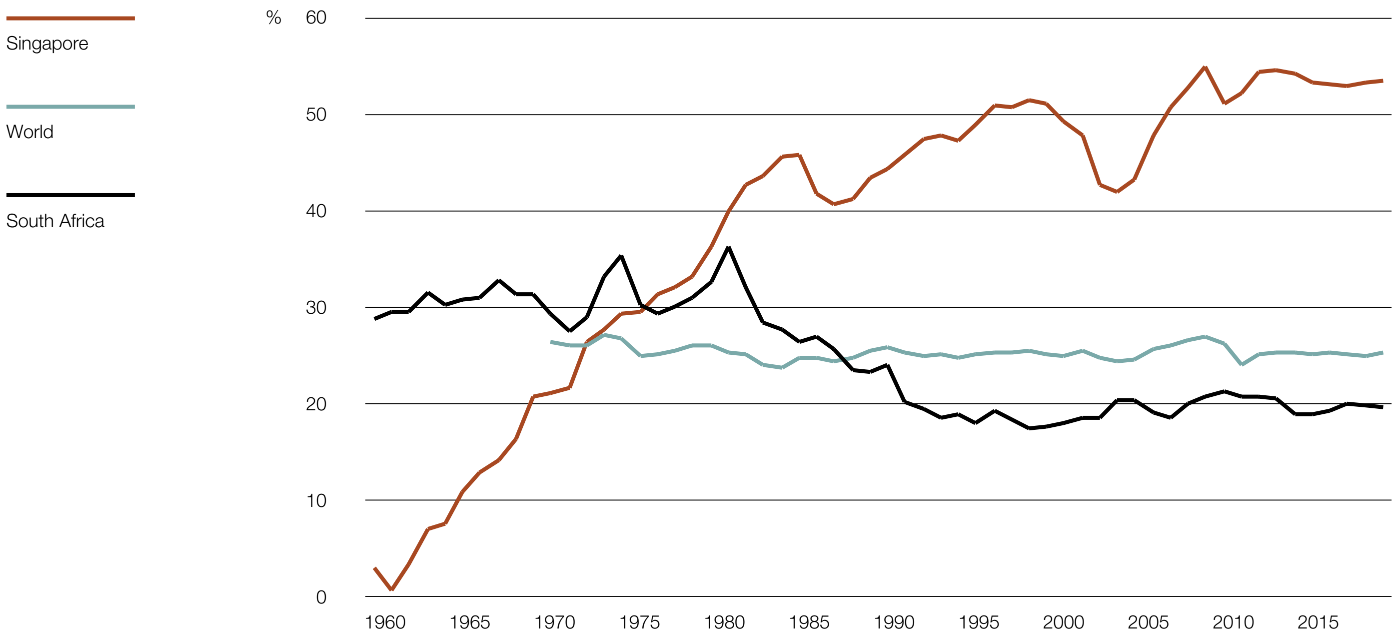


Figure V

Singapore: Gross savings (%GDP)

Source: World Bank (2018)



If you start saving early, and save regularly, the impact of time and compounding interest are profound – but not magic or miraculous – it's just maths.

The 2017 Melbourne Mercer Global Pension Index rates the wealthy city-state's pension system best in Asia and tenth globally in terms of adequacy, sustainability and integrity. This is a remarkable outcome for a country that in 1960 had a *per capita* income of about US$400 and a national saving rate of less than 10% of GDP. Two fundamentals that the Singaporean model shares with Chile's are mandated contributions and individual accounts. However, the role of the state and the employer in Singapore are starkly different to the Chilean model.

Adjusted for purchasing power parity, Singapore boasts a per capita income of US$85,050. The gross saving rate rose above 20% of GDP in the 1970s and by the mid-1980s had reached 40% of GDP, where it remains. Singapore is a spectacular saver. Moreover, more than financially well-off, Singapore is prosperous. In his book *The Blue Zone of Happiness*, Dan Buettner (2018) exalts Singapore as one of the world's happiest places. If you start saving early, and save regularly, the impact of time and compounding interest are profound – but not magic or miraculous – it's just maths. In 2017, Singapore reported the 11th highest mean total wealth per adult in the world, with average wealth of US$268,776 per person.

South Korea

State-led competitiveness and state-planned prosperity

Critically, South Korea's saving and investment drive started in a low-income setting, reinforcing the point that you don't have to be 'rich to save'.

Analysing the so-called 'economic miracles' of Taiwan and South Korea, Dani Rodrik (1995) begins: 'To an economist interested in growth, the East Asian experience since the early 1960s poses enduring challenges.' Rodrik calls their rapid, decades-long expansion 'something of an enigma'. Indeed, how did South Korea go from Japanese colony in the 1940s to host of the Seoul Olympics in 1988; from aid-dependent after the Korean War in the first part of the 1950s to the home of the Samsung Electronics, Hyundai Motors, Kia Motors, POSCO and LG we know today? For Rodrik: 'How these … countries managed to transform themselves from economic basket cases into economic powerhouses remains something of an enigma.'

To unravel this mystery here is ambitious. Instead, we set out to build an understanding of the savings-investment-growth triplet that played out during the so-called Miracle on the Han River: 6.8% growth in GDP per capita between 1960 and 1989 (Rodrik, 1995). Cambridge economist Ajit Singh (1998) confirms the broad consensus: 'most economists accept that high rates of saving and investment in these [East Asian] countries have been a key factor in their economic success.' Specifically, and this will come as no surprise by this point in this report, it was saving and investment that played the pivotal roles in this 'miracle'.

From the mid-1970s to the mid-1980s, South Korea's saving rate lifted above 20% of GDP and continued up to more than 30% of GDP. From 1985 to present, South Korea's saving rate has never dipped below 30% of GDP. Household savings were a prime mover in this story, rising from low single digits in the early 1970s to about 25% of income by the 1980s. Critically, South Korea's saving and investment drive started in a low-income setting, reinforcing the point that you don't have to be 'rich to save'.

Figure W

South Korea: per capita income (US$)

Source: World Bank (2018)

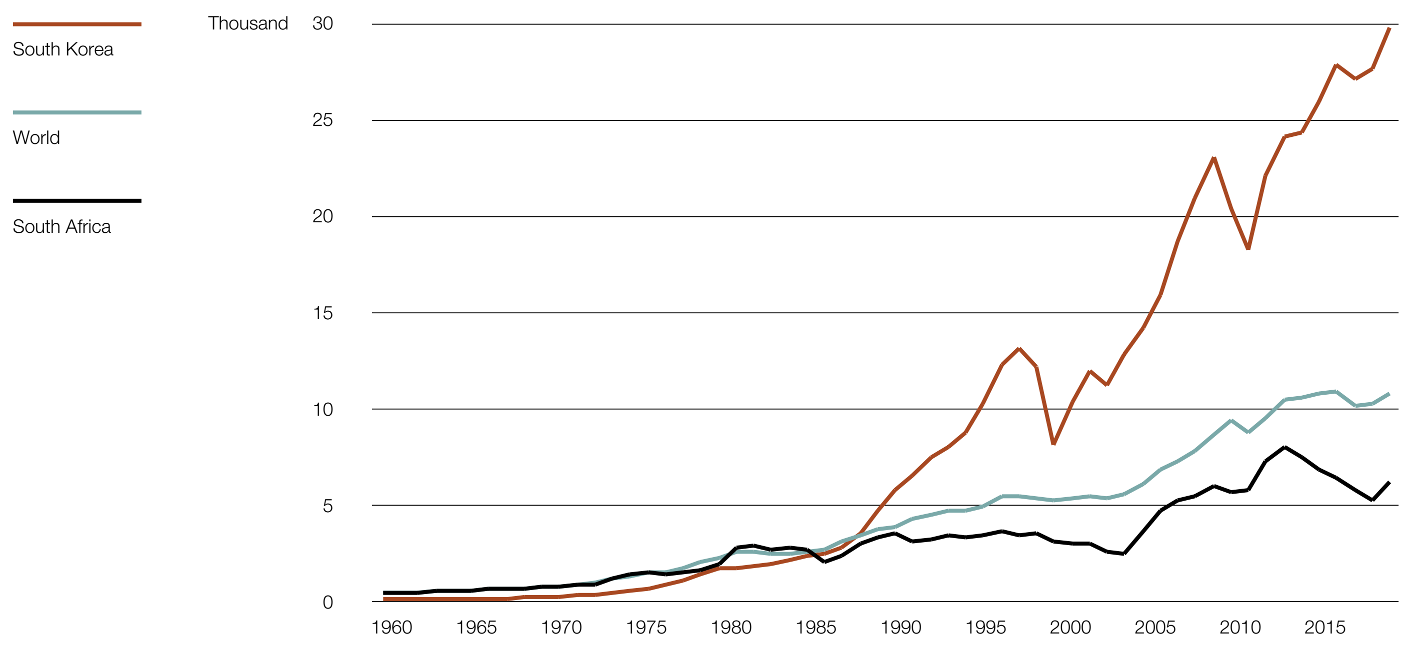
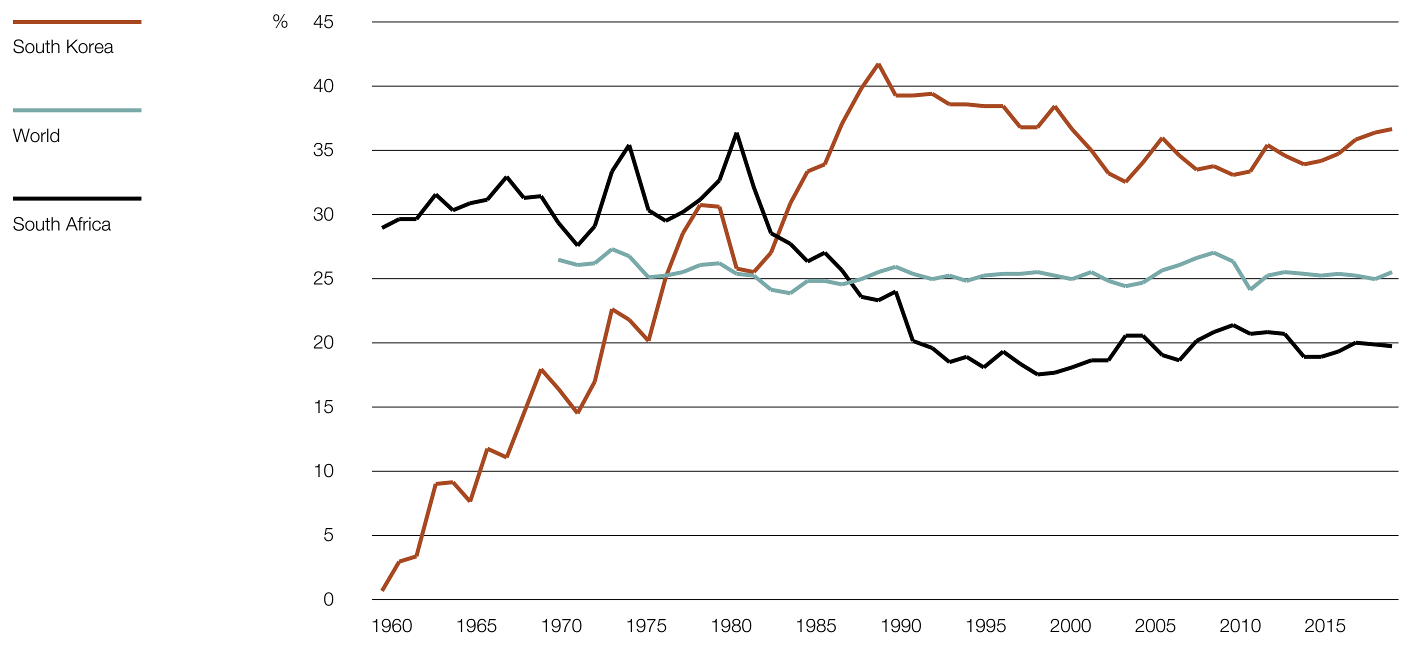


Figure X

South Korea: gross savings (%GDP)

Source: World Bank (2018)



The intention was a gradual weaning off from foreign funding: ‘The investment rate grew as fast as the increase in [domestic] savings permitted.’

The Korean War (1950 to 1953) destroyed two thirds of the country’s industrial capacity (World Bank, 1993). The limited agriculture and light industry that remained could shoulder a GDP per person of just US$158 in 1960. That year, *per capita* incomes in South Africa and the global average were triple that at US$450. South Korea’s numerical neighbourhood included Ghana, US$180 per person, and Bolivia, US$153 per person. By most accounts, this grinding poverty was one actor in the 1961 military coup frequently also described as an economic revolution. General Park Chung-hee overthrew the government and assumed the presidency, ushering in a remarkable spell of state-led development planning.

Park was strongly influenced by the ‘Japanese varieties of corporatism and communalism, and emphasised scale economics and large firms, capital accumulation (reflected in an anti-consumption bias) and the nationalisation of banks’ (Hassink, 1999). His own statements on frugality are instructive. He wanted ‘an austere living atmosphere … where spending should be checked in favour of saving,’ and he praised the Germans as ‘sparing in eating, clothing and spending’ (Garon, 2011). A variety of measures were implemented in the years that followed with the overt intention of boosting investment and repressing consumption spending. At a global level, this meant monopolising foreign borrowing. As the only source of foreign currency, the state then steered the economy with policy loans to preferred industries. Government intervened to ‘maintain macroeconomic equilibrium between savings and investments at high growth rates’ (Singh, 1998). By way of a series of five-year plans, this began with labour-intensive manufacturing, almost exclusively targeted at selling to export markets. As exports grew, they funded increasingly heavy industries, particularly throughout the 1970s when the Heavy Chemical Industry (HCI) drive dominated. South Korea did not squander or laud this early success. The more they exported, the more the domestic economy grew – and saved. As noted by Kim (1991), the intention was a gradual weaning off from foreign funding: ‘The investment rate grew as fast as the increase in [domestic] savings permitted.’

Such was the Park administration’s need for control and desire for independence that foreign direct investment was kept to a bare minimum, only growing to substance with liberalisation in the 1980s (Minns, 2001). At a microeconomic level, an array of firm-handed measures was designed to stunt ‘unnecessary’ consumption. Chang (1993) explains how state-owned banks were disallowed from granting consumer loans, foreign holidays were banned until the late 1980s and imports of goods deemed luxuries were subjected to prohibitive tariffs. He cites the example of imported whisky, which was subject to a 100% tariff, plus three inland taxes, namely, a liquor tax, luxury consumption tax and value-added tax.

Ironically, despite South Korea’s modern status as master maker of passenger cars, private ownership of vehicles happened in South Korea far later than in comparably wealthy countries. As recently as 1985, there were 73.5 people per passenger car in South Korea, while just two years earlier, according to 1983 data, that figure was 21.8 in Chile and 27.0 in Taiwan (Chang, 1993).

An ideological push suffused the legal and regulatory system. South Korea was no stranger to national imperatives to save. The Japanese had brought their own brand during colonialism between 1910 and 1945. This left an embedded culture of postal savings. Estimates are that five or six million Koreans had savings with the post office when Japanese colonialism ended (Garon, 2011). The Park government also revived various savings associations dating back to the 1930s’ Rural Revitalisation Campaign, which formed village-level bodies to encourage saving and warn against debt (World Bank, 1993). To bolster this initiative, during the Korean War the government implemented the ‘Campaign to Save for Certain Victory’. The Park regime mobilised the nation with the ideology of ‘Renaissance of the Nation’ (Chang, 1993). State-controlled media and school textbooks described workers as ‘industrial soldiers’ and businessmen (and yes, it was men) were awarded medals for achieving export quotas. Grass-roots efforts extended to the minutiae of daily life. ‘Rice saving’, for example, encouraged cooking rice with other grains to preserve the more valuable commodity (Korea Development Institute and Ministry of Strategy and Finance, 2012).

Capital accumulation and competitiveness in two generations: Hyundai RB 635 (1967) and Kia Stinger GT (2018)

Source: businesskorea.co.kr

> **"[N]o system or machinery or economic doctrine or theory stands on its own feet:**
>
> **it is invariably built on a metaphysical foundation, that is to say, upon man's basic outlook on life, its meaning and its purpose.**
>
> **I have talked about the religion of economics, the idol worship of material possessions, of consumption and the so-called standard of living, and the fateful propensity that rejoices in the fact that 'what were luxuries to our fathers have become necessities for us."**

Small is Beautiful: Economics as if People Mattered
EF Schumacher (1973)

Thirteen

Small is beautiful: from modest nudges to big capabilities

As incomes have increased, saving rates have fallen.

If the inducements to individual saving in 1970s South Korea were an early model Hyundai 24-seater diesel bus, modern approaches are the laser-guided parking assist on a 2018 Kia Stinger GT Twin Turbo. Much like the latest in motoring safety technology, many of these 'nudges' to improve saving behaviour are barely noticeable in the moment. But lots of nudges over enough time materialise into step changes for outcomes. Just decades old as a distinct area of thinking, the burgeoning field of behavioural economics has already been the subject of two Nobel Prizes, while entering popular discourse with bestselling books. It has been translated into sophisticated modelling and refined thinking in understanding the 'why' of decision making. Characterised by its ability to lever up relatively small efforts to produce large behavioural changes, this is a source of powerful tools to deal with aspects as wide ranging as organ donation numbers to fostering saving habits.

Developments in this field of economics have come not a moment too soon. Many conventional economic tools have a muted and inconsistent or ambiguous impact on saving behaviour. Often the outcomes defy the first-order thinking that historically has dominated mainstream economic modelling and policy making. For example, a 2014 study by academics from Harvard Business School and the University of Copenhagen found 85% of people to be what the authors term 'passive savers'. Passive savers take no action in response to a tax incentive or savings subsidy. The authors of the study estimate that 'each US$1 of government expenditure on subsidies increases total saving by only 1 cent' (Chetty, Friedman, Leth-Peterson, Nielsen and Olsen, 2014). This is one of many arenas where our animal spirits let us down, leaving traditional economic models flat-footed.

Even more perplexing are findings that 'run in the wrong direction'. By way of example, Kasongo and Ocran (2017) note the declining household savings rates in South Africa from an average of 5.9% of GDP per year in the 1970s, to 1.6% in the 1990s and less than 0.5% in the new millennium. Notwithstanding the benefits of saving, and the key role that household saving plays in economic development, the results in a South African setting point to a strong negative relationship between household saving and real GDP for the country. In other words, as incomes have increased, saving rates have fallen. Equally perverse is the result that saving in South

Behavioural economics acknowledges that humans do not always make sense or act reasonably and rationally.

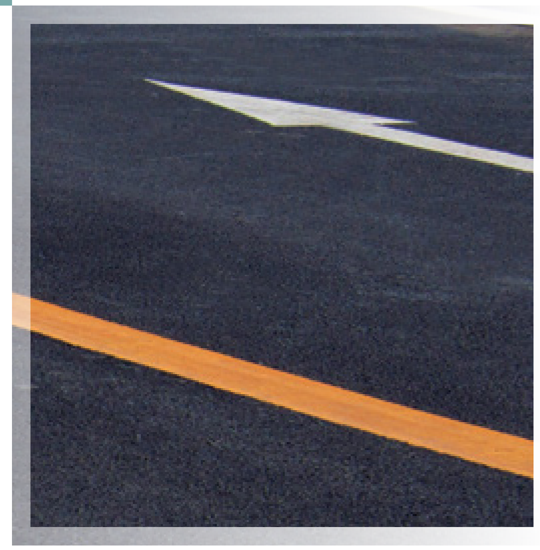
Africa has dropped with financial deepening (Kasongo & Ocran, 2017). The supposition is that people save less (proportionately) when they feel wealthier, and save more (proportionately) when they feel poorer. This see-saw effect has also been found by other researchers to hold true in South Africa (Simleit, Keeton & Botha, 2011). This is not the case everywhere, however. For instance, Chamon and Prasad (2010) find that household saving rates in China have risen as a percentage of income in the face of rapid income growth among urban households. The authors suggest that this pattern, which is at odds with experiences in many other countries, is best explained by the rising private burden of expenditures on housing, education and health care among Chinese urban households. Either way, the evidence suggests that the key to understanding savings behaviour and promoting savings patterns does not reside in either sweeping rules of thumb or first-order neo-classical economic models whose outcomes are rooted in prices, incentives and taxes as explanatory factors and rely on homo economicus to respond in a well-reasoned and rational manner to these incentives. On the contrary, understanding savings behaviour and promoting savings patterns starts with the nuanced models of behavioural economics.

The title of a Duke University Professor Dan Ariely's (2008) New York Times bestseller - Predictably Irrational: The Hidden Forces that Shape Our Decisions – captures the heart of behavioural economics. This is a strikingly different lens on the world from traditional economics, which views us as rational, equally well-informed agents, where we predictably chase marginal benefits measured in something called 'utils' to maximise our individual utility.[13] The 2017 winner of the Nobel Memorial Prize in Economic Sciences, Richard Thaler, calls these textbook beings 'econs'.[14] 'They have no emotions, perfect self-control, they weigh just the right amount, they save just the right amount,' he quips. 'And they're complete jerks.'[15]

Behavioural economics acknowledges that humans do not always make sense or act reasonably and rationally – in other words, our decision making, and behaviour, tends to be dominated by irrationality, if judged by neo-classical economics. More important, behavioural economics identifies the various ways our irrationality is predictable. That is, prince or pauper, we make similar 'errors' all the time. Behavioural economics lays bare the fact that we share an array of biases and behavioural switches, from ignoring the past to over-emphasising the present, often to the detriment of our futures. Yet, if we can understand behaviour and better predict decisions, we can begin to manage the decision-making process. This represents an exceptionally powerful toolkit to have emerged in the last 20 years or so out of the 'science' of economics. More to the point, our growing understanding of financial psychology, individual behaviour and economic decisions, makes the way for tools such as 'the nudge'. Thaler offers a characteristically pithy definition of a nudge as 'Any small feature in the environment that attracts our attention and influences our behaviour'. The third pillar of the Investec GIBS Savings Index references the savings environment, which in South Africa is quantifiably inferior to what is needed to promote effective savings that reach all the way from macroeconomic elements, such as financing fixed investment spending, through to microeconomic elements, such as promoting the savings behaviour of individuals to build household wealth. Thankfully, the insights, understanding and tools drawn from behavioural economics suggest that weak saving environments can be changed into strong ones, and the experiences and evidence of countries such as South Korea, Singapore and Chile show what is possible under this changed behaviour.

The section to follow highlights a range of cases that embrace the tools of behavioural economics to encourage saving behaviour and promote saving patterns. As before, the examples are not proposals but provocations that point to what is possible when appropriate and effective microeconomic tools are engaged.

The supposition is that people save less when they feel wealthier; and save more when they feel poorer.



[13] Utility can be loosely translated as usefulness or satisfaction and should not be confused with well being ["well-being" is hyphenated], wellness or prosperity.
[14] More formally, 'econs' are the rational being homo economicus.
[15] FT Live (2015) available via https://on.ft.com/2Je7lIB accessed on 13 March 2019.

01 SMarT: Save More Tomorrow *(United States)*

Richard Thaler was behind one of the iconic campaigns to nudge people into saving more. The obstacle he took on was one we all know well, even if we don't have a name for it. The 'dual self' recognises we can be 'different people' at various times. We may be resolute and rational when we decide to save money or quit smoking, but not quite 'ourselves' when faced with the prospect of new shoes or one last cigarette. We emphasise the 'now' and lack the robotic self-control of Thaler's 'econs'. Thaler's solution to the 'dual self' problem came in the form of a commitment device called SMarT.

SMarT is a deceptively simple tool, which is a trademark of Thaler's work: 'My mantra, whenever I'm working with the nudge unit is, "make it easy".'[16] SMarT participants committed in advance to allocating a portion of their future salary increases towards retirement savings. The present self – the irrational, loss-averse, short-sighted one – was hand tied long before he had the chance to spend next year's raise on holidays and restaurant meals. The commitment device worked. Tests found employees far more likely to commit to the future saving schedule than to start immediately. Of those who committed, 80% remained on the scheme for at least four salary increases. Across all participants who joined the programme, the average saving rate grew from 3.5% of income to 13.6% of income. SMarT had captured willpower in a bottle.

In a 2004 paper with Shlomo Benartzi, Thaler extrapolates from this experiment, imagining the impact this device could have on savings rates across the United States. In a best-case hypothetical scenario, they find, 'this would increase personal saving by US$125bn per year … or 1.5% of disposable personal income' (Thaler and Bernartzi, 2004).

Across all participants who joined the programme the average saving rate grew from

3.5%

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13.6%

of income

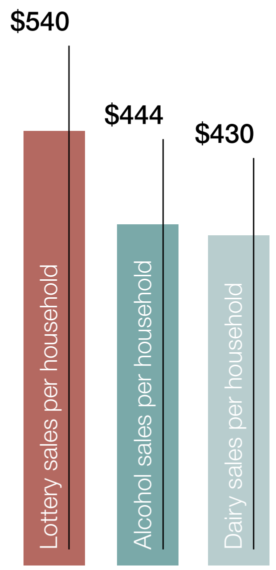
[16] FT Live (2015) available via https://on.ft.com/2Je7lIB accessed on 13 March 2019.

02 Save to Win *(United States)*

Commonwealth (or Doorways to Dreams as it was known then) was established in the early 2000s by Peter Tufano, then a newly tenured professor at Harvard Business School. He believed he could apply behavioural tools to benefit financially vulnerable consumers[17]. One result was an irony-rich scheme that harnessed the traditionally pocket-emptying institution of a lottery to entice saving. Tufano exploited a frailty we all share, known as the optimism bias: despite the staggeringly small odds, individually we tend to secretly believe there's a winning lottery ticket somewhere with our name on it.

Tufano's prize-linked savings (PLS) accounts were designed to reward depositors not with the customary return of interest, but with a sort of virtuous lottery ticket. For each US$25 saved, depositors earn an entry for a monthly draw for prizes ranging from an even US$25 to a return of up to US$100. Quarterly prizes were as much as US$1,500 and an annual jackpot reached US$30,000. Unlike flutters on lottery tickets where the payout in losing tickets is zero, the payout on PLS tickets is the initial ticket price. All ticket purchases are effectively account deposits that add up and pay for education and housing.

Tufano made clear the relevance of prize-linked saving as co-author of a 2010 paper (Kearney, Tufano, Guryan and Hurst, 2010): 'In the year 2008, 42 states and the District of Columbia offered state lotteries, bringing in roughly US$60bn in sales or more than US$540 per household nationwide. In the same year, households in the United States spent US$430 per household on all dairy products and US$444 on alcohol. We buy more lottery tickets than milk or beer.' In 2014, Tufano, now at Oxford University, co-authored a paper studying South Africa's foray into prize-linked savings. First National Bank's 'Million-a-Month' (MaMa) account awarded R1,0mn to a randomly selected account holder every month. As reported by Cole, Iverson



We buy more lottery tickets than milk or beer.

2018 Household spend in the US

and Tufano (2014): 'Within 18 months of the start date of the program, there were more PLS accounts than regular savings accounts at the bank, and within three years, PLS deposits amounted to R1,4bn at the bank, as compared to total savings of R4,5bn in the comparable standard savings account.' In 2008, the MaMa was deemed to violate the Lottery Act of 1997 by South Africa's Supreme Court of Appeals and shut down.[18] Tufano's experience with Save to Win in the United States suggests this is an unfortunate outcome in that just because it looks and feels like gambling, doesn't mean it is gambling.

Other Commonwealth innovations include financial education through entertainment games (or gamification), campaigns that encourage taxpayers to save their tax refunds, the design of mobile applications that influence financial behaviour and the creation of children's savings accounts.

[17] See buildingcommonwealth.org, accessed 14 March 2019.
[18] FirstRand Bank versus National Lotteries Board (2008).

For Anne Murphy, the salience of the 'Million Adventure' was its establishment of the 'important connection between the investor of limited means and financial knowledge, and the state'.

War and money: The origins of prize-linked savings

Prize-linked savings, though not common, are far from new. Anne Murphy's 2005 journal article '*Lotteries in the 1690s: Investment or gamble*' in the Financial History Review gives the example of the 'Million Adventure'. Launched in England to help finance the Nine Years' War (1689-1697) against France, the scheme sold off 100,000 tickets at the sum of £10 each. Lucky owners of winning tickets received as much as £1,000 back per year for 16 years. In addition, each ticket was a bond. All holders earned a reward of £1 per year until 1710, for an annual return of approximately 6.15%.

Those who couldn't afford the full price formed syndicates, bearing out the aim of politician, banker and Master of the Mint, Thomas Neale (1694), who administered the fund for the government, to allow 'many thousands who only have small sums, and cannot now bring them into the Publick, to engage themselves in this Fund'.

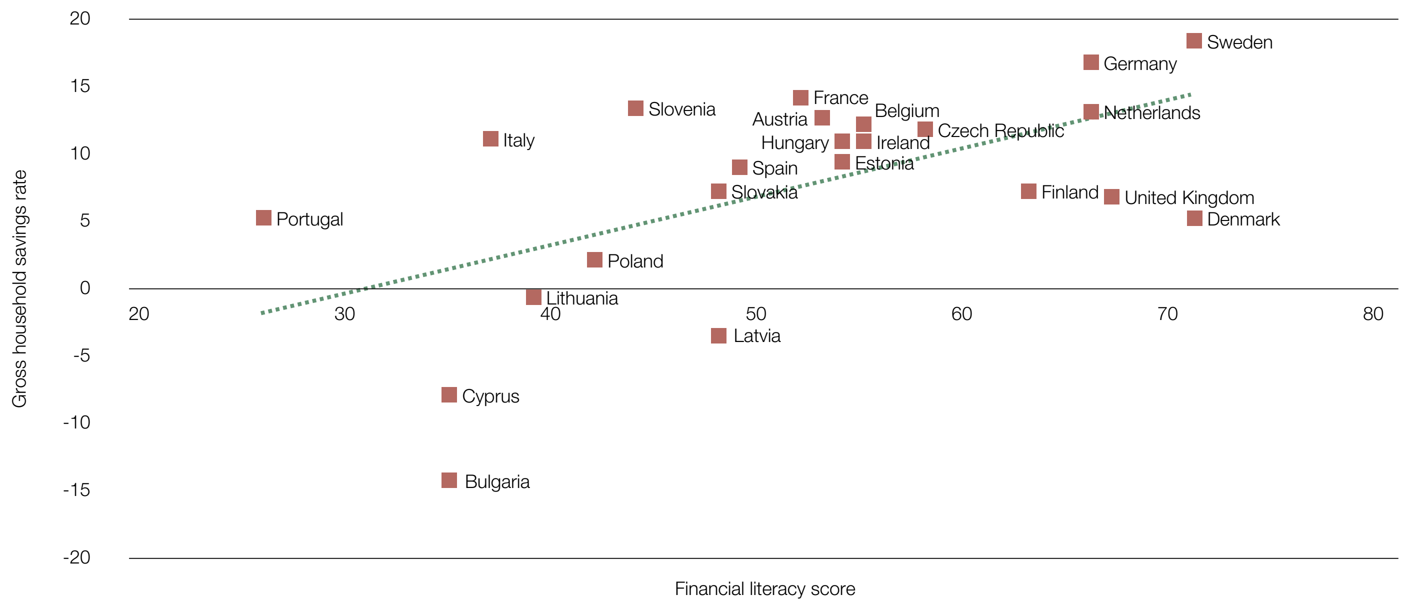
For Anne Murphy, the salience of the 'Million Adventure' was its establishment of the 'important connection between the investor of limited means and financial knowledge, and the state'.

03 Teach a Person to Save *(Ethiopia)*

Figure Z

Financial literacy scores and household saving rates

Source: Batsaikhan and Demertzis (2018)



A widely accepted determinant of saving rates is financial literacy. Evidence recently produced by Batsaikhan and Demertzis (2018) on inclusive growth and saving behaviour for the European Union points to a strong relationship between financial literacy scores and gross household saving rates. The logic in this relationship seems watertight: people who know the time-value of money will take advantage of it and save more.

While an explanatory power of 0.32 points to a relatively strong relationship, it certainly leaves the way open to suggest that 'not everyone is an econ', and that some countries apparently save more than can be explained by financial literacy scores on their own. In the above example, Portugal, Italy, Slovenia and France are cases in point. Experience elsewhere agrees with this assumption.

One pertinent study among micro-entrepreneurs in Ethiopia confirmed as much: classes on financial literacy had no significant impact on saving. But researchers had anticipated this outcome, and they had extensions to the research planned. A second study group received the training and received follow-up reminders by text message. Not only did the addition of reminders lead to reduced spending on food and rent. It increased the use of bank accounts and financial literacy scores beyond what the initial training had achieved. One salient part of the study's conclusion demands emphasis: 'the amount of savings is crucially driven by attention, which can be altered by SMS reminders … Sending SMS reminders is not costly, [and] we find it effective' (Abebe, Tekle and Mano, 2016).

04 Coining It
(Kenya)

We 'feel worse' about losing some amount of money than we 'feel good' about gaining that same amount.

A 2016 paper written by Merve Akbas, Dan Ariely, David Robalino and Michael Weber (2016) explains how several of the most common behavioural techniques were tested in one study over the course of six months among low-income workers employed in Kenya's informal sector (Akbas et al., 2016). The researchers partnered with a savings product provider in Kenya and applied the same base treatment to all participants: weekly text messages, sent every Thursday, confirming the recipient's current account balance and reminding the recipient to save. Three groups were given one of the following interventions:

1. The same text messages, but framed as if sent from the participant's children;
2. A metal coin displaying numbers for each week of the trial, asking participants to track their savings by scratching out numbers one way for weeks they had successfully saved and another way if they failed to save; or
3. A reward that matched 10% or 20% of weekly savings.

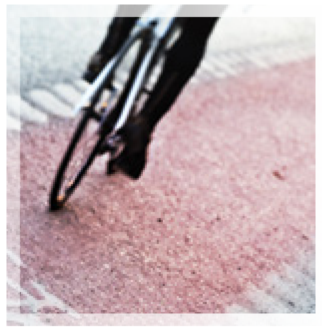
Further, within the matching group, the match was either paid at the end of the week, based on actual saving, or the maximum possible match was paid at the start of the week and adjusted downward at the end of the week if necessary (that is, if saving levels justified less than the maximum match).

Some results were as expected. For instance, reminders help. Touchingly, reminders 'from your kids' helped more. Interestingly, matching had a limited impact. Given that this conflicts with other research (Collard and McKay, 2006), the authors speculate that this was because 'the matching financial incentives offered were not high enough to change behaviour' (Collard and McKay, 2006). More important, pre-matching was better than post-matching. The authors suggest this is a result of the loss aversion bias: the idea that losses loom larger than gains.[19] In other words, we 'feel worse' about losing some amount of money than we 'feel good' about gaining that same amount. Participants protected the money provisionally given to them more resolutely than they targeted that same amount when it could only be achieved at the end of the week.

Perhaps most surprising in the findings is that the physical coin was by far the most effective – twice as potent as reminders alone. 'We hypothesise that being a tangible track-keeping object, the coin made subjects remember to save more often', the study concluded. It was a physical presence that endured and sparked intermittent conversation in the home, unlike a transient, private text message. 'Our results support the line of literature suggesting that saving decisions involve psychological aspects and that policy makers and product designers should take these influences into account.'

[19] See also Tversky, A., and Kahneman, D. (1991) Loss Aversion in Riskless Choice: A Reference-Dependent Model. Quarterly Journal of Economics, Volume 106, Issue 4.

05 Saving Soldiers
(United States)



During the five-week period of the study, the enrolment rate was

10.74%

compared to 1.86% previously recorded

The power of nudges was not lost on Barak Obama during his second term as president. He established the Social and Behavioral Sciences Team (SBST) – better known as the Nudge Unit – in 2015, with the mandate to 'identify policies, programs, and operations where applying behavioural science insights may yield substantial improvements in public welfare, program outcomes, and program cost effectiveness.'[20]

One of several successes of the SBST was an attack on what is euphemistically called inertia or the status quo bias. Most of us call it laziness, procrastination or 'I'll get to it when I have time'. Working with the Department of Defense, researchers tested what the literature calls 'active decisions', coupled with 'fresh start decision moment' (Carroll, Choi, Laibson, Madrian and Metrick, 2009). Researchers chose the arrival of a military employee at a new base as the 'fresh start decision moment'. The 'active decision' was whether to sign up for a government-administered savings scheme. The Thrift Savings Plan (TSP) is available to all government employees, military and civilian. However, the Nudge Unit observed that while just 44% of military personnel had signed up for the TSP, that number was 87% among civilian government employees. Their experimental nudge was to force new arrivals at a military base (Fort Bragg, North Carolina), as part of their onboarding procedure, to actively decide about saving. A paper form to be filled out required the choice to be made between three options: 'Yes, I choose to enrol and save; 'No, I choose not to enrol and save'; or 'I'm already enrolled'. During the five-week period of the study, the enrolment rate was 10.74%, compared to 1.86% as the highest rate recorded at three control bases.

A similar experiment run in parallel at Fort Lewis, Washington, elicited the active choice by requesting new arrivals raise their hands if they were not enrolled yet but wanted to do so. Those who raised their hands were immediately led to computers to enrol online. Here the enrolment was 8.39%, suggesting the paper form to be a more effective medium than computer.

[20] The Social and Behavioral Sciences Team was established in the United States by Executive Order #13707 on September 15, 2015.

06 M-Akiba
(Kenya)

The world's first mobile-phone based bond, M-Akiba, was issued in March 2017.

A second Kenyan case shows a masterful adaptation of behavioural tools for a specific context. The world's first mobile-phone based bond, M-Akiba, was issued in March 2017. With a minimum investment of Sh3,000 (US$30), this made Kenyan paper available to ordinary citizens for the first time. Requiring only the ubiquitous mobile payments platform M-Pesa, an equally commonplace function phone and three very easy steps, purchasing a treasury bond had gone from a complicated, arduous process to seamless steps in an ordinary day.

Old school economists will recognise the link to the traditional concept of 'shoe leather costs': an acknowledgement that the logistical 'costs' around making a purchase – such as the wear and tear on one's leather shoes – should play a role in the buyer's decision to make that purchase. The M-Akiba savings and investment plan reduced shoe leather costs from material to negligible.

In addition, M-Akiba bond prices are fixed, avoiding speculative trading and protecting savers' capital. The 10% coupon is paid digitally through M-Pesa or Airtel. With a nod to the saving-investment-growth link submitted in this piece, funds raised are earmarked for government infrastructure projects.

07 Other nudges and prods

The list of behavioural prods and psychological nudges runs much longer than the above examples.

Rounding up

The saving app Qapital allows users to automatically save 'insignificant' amounts when making purchases by card. Directly linked to one's bank, Qapital lets you set 'rules' to automate savings. For example, every time you spend money, Qapital can round the total up to the nearest dollar and move the amount into a goal account insured by the Federal Deposit Insurance Corporation.

Bank of America offers a similar tool. Their 'Keep the Change' facility rounds all purchases up to the nearest dollar and sends the difference into savings.

Acorns offers an investing app that rounds up your purchases to the nearest dollar and automatically adds the difference to an Acorns account. The money is then invested in a portfolio based on your income and goals, and you earn a return on the investment. A basic taxable investment account costs US$1 a month. Each Acorns portfolio is composed of exchange-traded funds, with options that range from conservative (having a higher percentage of bonds) to aggressive (having a higher percentage of stocks).

Smiley the Squirrel

Singapore helps children save with help from a mascot, Smiley the Squirrel. Intent on saving nuts, the beloved squirrel headlines the National School Savings Campaign. The programme allows school children to purchase stamps for S$0.50 each. The stamps are stuck on a savings card until all 20 spaces are filled. The complete card can then be deposited at the Post Office Savings Bank to credit the young saver's POSBKids account with not just the S$10 accumulated, but a further S$1 bonus matched by the bank. Smiley Town, a mobile gaming app, gives students saving advice and enables them to monitor their loot online.

Propel Schools

A not-for-profit federation of charter schools based in Pittsburgh, Propel Schools, established a saving scheme using commitments and prize-linked saving. The Fund My Future programme automatically opens savings accounts for all students. Every US$10 deposited gives the student an entry to a monthly raffle for gift cards to local stores and restaurants. The power of hallway chatter is harnessed by enabling deposits at the school cafeteria. Withdrawal is only allowed after graduation, intending it to fund further education.

80%

of employees remained in a savings plan after automatic enrollment.

Nudging savings decisions through anchoring.

SEED

A collaborative study between Harvard University and Yale University researchers worked with Green Bank in the Philippines. The researchers established the SEED – Save, Earn, Enjoy Deposits – account. This employed a simple commitment device: no withdrawals until some future date or amount, chosen by the saver herself, was reached. Clients are also given the option to automate transfers from a primary account into the commitment savings account and the option of buying a lockbox to store their money in, with only the bank possessing a key. Among other things, the study set out to monitor the impact on family-control issues, especially 'spousal control', which references the problem that women lack power to save their own earnings. The researchers concluded that 'the commitment product positively impacts … household decision-making power'. The account helped people save more after one year, and the programme increased decision-making power for women in the household. This set of findings has a specific, and potentially positive, implication for household savings in South Africa, in the light of literature demonstrating that in South African households, women spend money more wisely than men (Gummerson and Schneider, 2013).

Defaults and inertia

Changing a default setting on one's laptop is a minor hassle but it saves time in the long run. The same goes for money. Changing a saving scheme to 'opt-out' (that is, you are automatically enrolled and stay that way until you opt out) induces long-term changes. Madrain and Shea's (2000) seminal study on the topic found that 80% of employees remained in a savings plan after automatic enrolment, compared to just 13% of those who were enrolled if they were required to opt in actively to participate (Madrain and Shea, 2000).

Anchoring

The same study by Madrain and Shea (2000) tested the effect of the anchoring bias, which refers to our tendency to give disproportionate attention to the first piece of information received. They found that suggesting a contribution rate, be it 3% or 6%, biased employee selection to that number when making savings decision.

Nudging decisions through anchoring draws on the findings of Amos Tversky and Daniel Kahneman, who in 1974 conducted a study in which they asked people to estimate how many African countries were part of the United Nations, but first they spun a wheel of fortune. The wheel was painted with numbers from 0 to 100 with the wheel rigged to always land either on 10 or 65. When the arrow stopped spinning, they asked the person in the experiment to say if they believed the percentage of countries was higher or lower than the number on the wheel. Next, they asked people to estimate what they thought was the actual percentage. They found people who landed on 10 in the first half of the experiment guessed around 25% of Africa was part of the United Nations. Those who landed on 65 said around 45%. The subjects had been locked in place by the aforesaid psychological phenomenon known as the anchoring effect. The trick here is no one really knew the true answer. They had to guess, yet it didn't feel like a guess. As far as they knew, the wheel was a random number generator but it produced something concrete to work from. When they adjusted their estimates, they couldn't avoid the anchor. The same can be achieved through nudging saving behaviour: evidently, old dogs can be taught new tricks.

> **“There is no harm in being sometimes wrong — especially if one is promptly found out.“**
>
> *Essays in Biography*
> *John Maynard Keynes (1933)*

Fourteen

Manipulation? Or behaviour savers?

Behavioural tools are designed to manipulate. This may not make them ‘bad’, however, especially if they are an antidote or solution to social ailments.

Are behavioural nudges tantamount to social engineering? We argue ‘Yes, absolutely.’ Behavioural tools are designed to manipulate. This may not make them ‘bad’, however, especially if they are an antidote or solution to social ailments. The world is not neutral. There is always a ‘choice architecture’ in place, whether by a government, employers or the world of advertising. As Thaler puts it, ‘someone chose to put the salads before the burgers in the cafeteria’.[21] In this vein, Ariely asks, ‘Who in your environment cares about your long-term well-being?’[22] The majority of choice architecture is ‘consume, consume, consume’ – jeans, fast food, fast cars. George Friedman, cofounder and chief executive officer of the Swedish saving app Qapital, puts it bluntly: ‘We’re going after the 20% or 30% of your income that’s spent on crap. It’s that huge chunk of your money that you don’t remember spending or don’t care about at the end of the month.’[23] He refers to the fortunate few with the luxury to spend money on goods and services that belong to W.W. Rostow’s age of ‘mass consumption’ found in affluent societies.

Without doubt, the more relevant and greater application in the South African setting resides in the prospect for behavioural tools and psychological nudges to be applied in a society wracked by low-incomes, high inequality, a dearth of savings, an investment drought and jobless growth. If behavioural tools can nudge us away from this circumstance, we will argue for the intervention – or manipulation – again and again.

[21] Big Think interview with Richard Thaler (2012) available via https://bit.ly/2JowGC9, accessed 20 May 2018.
[22] Medium presentation by Dan Ariely (2017) available via https://bit.ly/2sAE8Qf , accessed 20 May 2018.
[23] Jonathan Shieber (2014) available via https://tcrn.ch/2kJx8gd, accessed 25 March 2019.

“The fundamental cure for poverty is not money but knowledge.“

Great Thinkers in Economics
Barbara Ingham and Paul Mosley (2013)

Fifteen

Some ideas on where and how to start

The last part of this note explores a few ideas that turn the ‘call to action’ into ‘economic realities’. These are not presented in any order, but rather laid out as a set of provocations.

FOMO versus YOLO: taking saving to the extreme

One emerging movement is taking saving to a new level. Associated with millennials, one might call it ‘fear of missing out (FOMO) to the max’, because adherents miss out on a whole lot. The movement, called FIRE (financially independent, retire early), advocates extreme saving in return for excessive retirement years. That is, it involves saving upwards of 70% of income with a view to ‘dropping out of the rat race’ in your 30s.

Usually traced back to a 1992 book by Vicki Robin and Joe Dominguez, ‘Your Money or Your Life’, FIRE is associated with several favourite ways to ‘hack’ one’s finances. There are the nickel-and-dime tips like sharing Netflix passwords and avoiding peak times for movies. But for most, living off a quarter of your income demands major lifestyle sacrifices – don’t expect a living room you can swing a cat in, and having kids is probably out, too. That said, there are degrees of FIRE-ness. ‘Lean FIRE’ describes the most intense frugality, prioritising early retirement above any degree of luxury. Those in the ‘barista FIRE’ category have quit their 9-to-5 jobs, but still pour coffees or work in the gig economy to cover living expenses. Slightly better liberated are those in ‘coast FIRE’, with enough saved to cover their lifestyles, working in the formal sector to keep busy and hold onto benefits like health insurance.

The obvious concerns about obsessive frugality aside, there are some deep challenges to FIRE. First is the implicit premise that life while working is an arduous state of being to be cut short, even at radical cost. Where that is the case, saving may not be the solution. On the other side of the coin, does one want to be retired for 70 years? That introduces levels of emotional and financial uncertainty rarely studied. Finally, and especially in an economy like South Africa’s, FIRE is not an option for most people. Critics argue only a privileged minority have the earning power to survive while saving the way FIRE demands. For others, a reminder that you only live once (YOLO) is enough to dismiss FIRE as another misconceived meme.

‘…by using behavioural insights in cancellation processes, we could help people to save more towards retirement, educate their children, and ultimately reach their personal financial goals.’

Genesis analytics: tools to stay the course

Starting and improving savings behaviour is not the whole story. One South African consultancy has tackled a weak link that can – and often does – undo prior good savings behaviour. In response to low persistency in contractual saving, Genesis Analytics has worked with several South African financial services providers to address premature withdrawals using the tools of behavioural economics.

It happens to almost all of us at some point: an unexpected need for cash – and fast. Withdrawing from a pension fund or education plan might be the easiest solution, but a hurried state may mean we ignore better solutions or withdraw more than we need. The Genesis Analytics team identifies three behavioural biases that explain this and has built treatments for each to nudge savers towards better decision making.

First, is the well-documented present bias: the tendency to focus on the now, or the current self, to the detriment of the later, or future self. Minor changes to a service provider’s contact centre scripts and cancellation documents to remind customers why they are saving – be it that new home or your child’s education – can be enough to prompt a necessary rethink.

Another bias is what Kahneman calls “System One Thinking”. This describes the sort of fast, near-automatic decisions we make when financial crises hit. Genesis Analytics has addressed this with careful insertion of additional decision points for customers in the cancellation process. For example, in-branch collateral presents customers with alternative means of accessing funds. ‘Essentially, the goal is to create a more deliberate and calculated decision-making process,’ says Samantha Rosenberg, a member of Genesis Analytics’ Applied Behavioural Economics team.

Finally, there’s the issue of anchoring. Genesis Analytics found that savers anchored their withdrawal decision on the total quantum of their savings. Where this exceeds the sum immediately required, the bias is to withdraw more than is needed. To deal with this behavioural bias, Genesis Analytics developed a commitment device to guard against this decision error. Asking customers to stipulate the amount needed before revealing the total value of savings in the policy shifts the anchor to the former figure, making it more likely that the difference will stay in savings.

Rosenberg highlights the benefits for Genesis Analytics’ financial services clients and their customers: ‘For the client, this delivered exceptional value in terms of increased profitability,’ she explains, ‘but by far the most important impact is on the customers themselves. This work showed that by using behavioural insights in cancellation processes, we could help people to save more towards retirement, educate their children, and ultimately reach their personal financial goals.’

Genesis Analytics’ own controlled trials have demonstrated the accumulated impact of these and other nudges to increase savings values by as much as 155%. That means the savers targeted by the interventions, on average, were saving more than double the amount of money they would otherwise have saved.

Bangladesh’s saving behaviour has steadily hiked higher, and ultimately climbed above the world average in 2014.

Bangladesh’s Grameen Bank: community collateral

Muhammad Yunus, at the time a Professor of Economics at Bangladesh’s Chittagong University, had spent years studying poverty in his country before reaching a profound and, at first blush, deceptively plain answer: ‘People are poor because they have no money.’
Based on his research throughout the 1970s, he argued that poverty is not the fault of poor people, but rather the result of elements that are baked into the way economies run that guarantee a degree of poverty.

At that stage, all he had done was identify a problem and beg the question, ‘How does one get money into the hands of the people who need it?’. These are the very people who lack a credit history and the assets required by conventional measures to justify a financial institution granting a loan. Yunus’s solution lay in a fundamental reinterpretation of the concept of collateral.

The name Grameen Bank is derived from Bengali and translates into ‘rural bank’ or ‘village bank’. Customers of the Grameen Bank, founded and chartered by Yunus in Bangladesh in 1983, had no collateral. But that didn’t mean they had no skin in the game. Grameen’s model of solidarity lending relies on the dynamics of small community groups to ensure repayment. Five individual borrowers would come together to form a group. Members of groups had to know one another and live in the same community but could not be related. Further, group members had to be of the same gender – as it turned out, 97% of Grameen’s borrowers are women. Any loan granted to a member was then ‘securitised’ by making repayment the collective responsibility of the group rather than the individual. The only asset requirement was that a borrower demonstrate sufficiently few assets, as confirmed by a Grameen area manager.

Figure AA

Bangladesh: Gross domestic savings (%GDP)

Source: World Bank (2018)

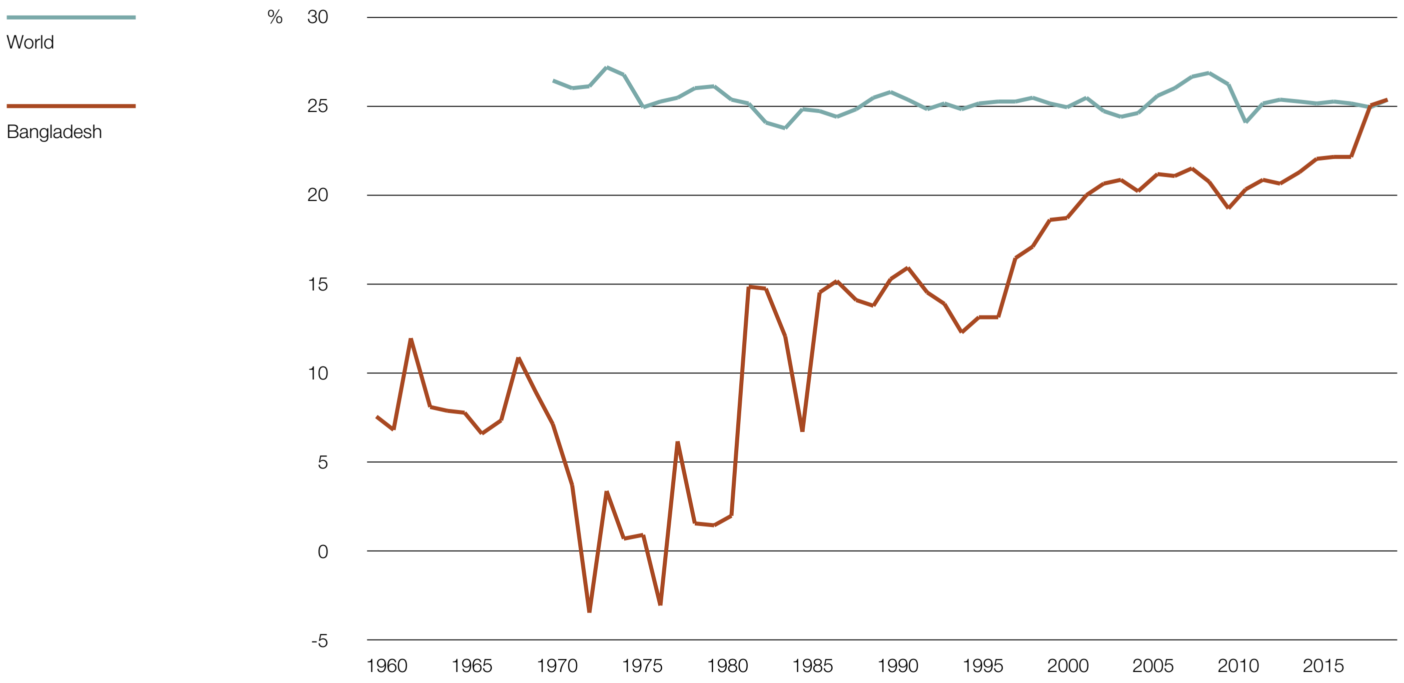
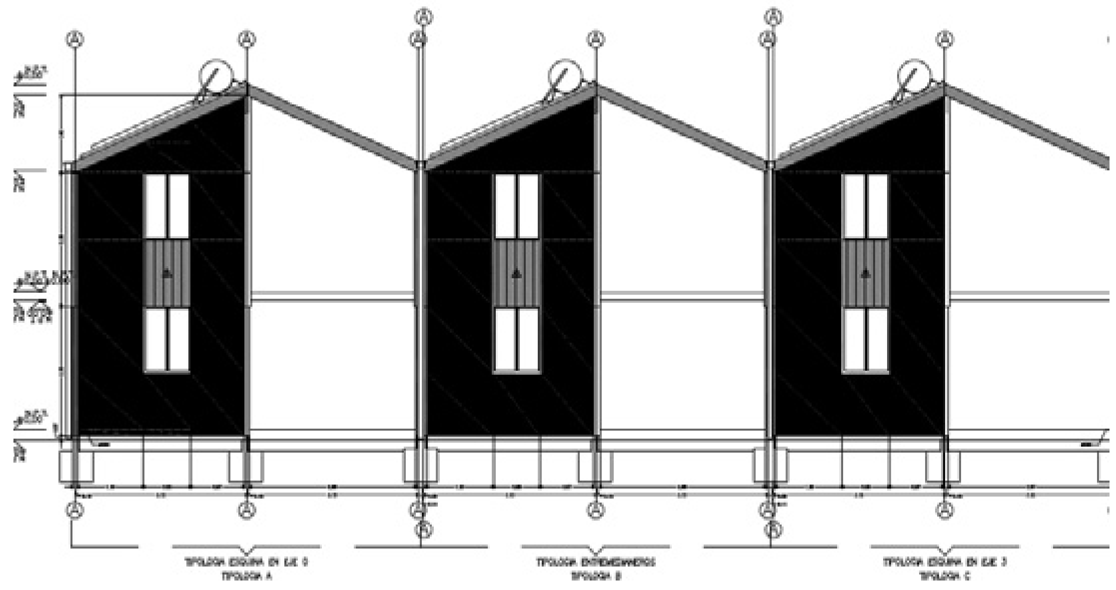


Figure BB

Open access design for the first half-house by Alejandro Aravena (Elemental)

Source: Elemental (2019)



But there was more to the model than a contract of joint responsibility. Training and rituals built a certain community that the law of contract cannot build. Four to eight groups would agglomerate into centres. All members of a centre gathered weekly for the repayment of loans, to deposit savings and to propose new loans. This was accompanied by exercise and slogans led by a centre chief chosen from among her peers. Grameen's area manager would arrive, typically by bicycle, to hear proposals for loans. Any member had the right to endorse or challenge the loan application of any fellow member. Success relied on the 'social collateral' that came in the form of endorsements (or otherwise) from fellow group members. Risks were debated before the manager retired to consider each case. By the afternoon, a decision was made, and the funds disbursed accordingly. With loans typically for one year, attracting weekly instalments, Grameen has consistently reported a recovery rate above 95% ever since – with the most recent reported figure of 99.03% in February 2019.

As of December 2018, Grameen claimed more than nine million members and 2,568 branches, serving more than 80,000 villages across Bangladesh. In 2006, Yunus and the bank he founded were jointly awarded the Nobel Peace Prize for 'their efforts through microcredit to create economic and social development'. The critical point in this example relates to the functional lending behaviour that ensures borrowing and deposit behaviours are functional, sustainable and inclusive. As a result, from the early 1970s, Bangladesh's saving behaviour has steadily hiked higher, and ultimately climbed above the world average in 2014, moving Bangladesh into the ranks of the fastest growing economies in the world over the past 20 years, boasting an average economic growth rate of 6.0% a year from 1999-2018.

Chile's half a house: a quicker path towards equality

Visitors to Chile might be taken aback by the sight of half-built houses tucked in a sprawling city. A massive failure of planning or engineering, one might reasonably assume. Surely a glaring example of government ineptitude, either way. But ask a passer-by and your (perhaps justified) cynicism might leave you embarrassed. 'That's the half-house,' you'll be informed.

Far from the jarring result of poor foresight, the half-house is the result of the genius of Alejandro Aravena. The celebrated Chilean architect describes it as 'incremental social housing', a response to three challenges with close parallels in South Africa: inequality, poverty and rapid urbanisation.

'All of us, when buying a house, expect its value to grow over time,' explains Aravena. 'So, by definition, a house is a form of investment. But that unfortunately is not the case in social housing. We identified a couple of design clues that allow the social housing unit, that is now the property of the family, to grow its value over time and perform as an investment and not just as a social expense.'

In short, Aravena constructed a way to use social housing funding of US$7,500, which might have been enough to build one small house, to instead build half of a large house – what he eloquently calls a house with 'middle-class DNA'. He built a house with 40 square metres of living space, with the frame to accommodate 80 square metres (the size of home a middle-class Chilean family might occupy) at such a time when the family has the resources to build it.

‘People say South Africans are bad savers’.

In 2016, Aravena was awarded the Pritzker prize – the ‘Oscar of architecture’. In their citation, the jury said he ‘epitomises the revival of a more socially engaged architect, especially in his long-term commitment to tackling the global housing crisis and fighting for a better urban environment for all’. And while he lays claim to an impressive portfolio of institutional and private commissions, the jury affirmed that ‘what really sets Aravena apart is his commitment to social housing’. The man himself is quick to point out that what he does is not charity and not a transfer of wealth. Rather the half-house initiative is a sustainable model. ‘We have never claimed any moral superiority here,’ he asserts. ‘If anything, we just think we’re good designers. We try to use our skills to issues that matter.’

Since the first half-house project in the northern Chilean city of Iquique in 2004 to overcome widespread squatting on an illegally occupied dense suburban half-acre, Aravena has advanced his design and applied it to new challenges, including rebuilding the coastal city of Constitución in 2010 following an 8.8 magnitude earthquake. More than 2,500 half-houses have now been rolled out across Chile and into Mexico, many of which have subsequently become whole homes.

Aravena’s firm, Elemental, a collective of five architects, Universidad Católica de Santiago, and the Chilean oil firm, COPEC, has made the designs for the half-house available free to the world for anyone to tweak and apply. Like the eccentric Aravena puts it, ‘It’s not the technical, scientific issues – we know what to do. We just need to consistency and courageously follow that path.’

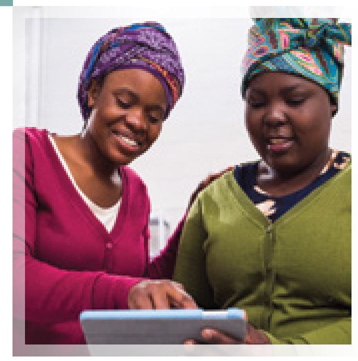
Easy Equities: own the market

Back in 2000, ‘we had an excuse as to why we couldn’t build solutions for low income earners,’ says Charles Savage, founder of Easy Equities. ‘Poor South Africans just couldn’t afford smartphones and data’ and even if they could, ‘the numbers made it hard to justify a response from the financial services industry.’ A decade later, he realised that this barrier had been largely eroded. This was the impetus for Savage to explore the democratisation of investment through access to share ownership by this emerging segment.

But there were other barriers to overcome. Various minimum charges and investment costs added up to exclude the market Savage had in mind. That was an institutional issue. More fundamental was the fact that his potential customers might take months – many of them years – to save enough to put their name on just one share in certain blue-chip companies listed on the Johannesburg Stock Exchange (JSE). Since these typically trade in blocks of 100 shares, you can multiply that period by one hundred. One doesn’t need to do the calculations to demonstrate that this makes a diversified portfolio an impossible dream for almost all South Africans to achieve in their individual capacity.

Savage set out to solve the challenge. Determined not to repeat mistakes, he hunted for previous attempts at solutions and parallels in other industries. His team concluded that fractional ownership of shares was the solution. ‘People say South Africans are bad savers,’ explains Savage. ‘Not true. Everyone wants to own shares.

‘What we need is a sense that we are all in this together.’



They want to own the brands they love. People just don’t have access to markets.’ Notably, fractional shareholding had been achieved in other markets. It is not uncommon in the United States, for example. What was lacking, Savage found, was the capacity to own and trade fractions of shares digitally. To close this gap, he built the digital trading platform know as Easy Equities.

With Easy Equities, an investor with R100 can pick several favourite shares on the JSE or Wall Street, allocate funds to a diversified basket of assets in an exchange traded fund (ETF) and allocate the remainder to a retirement annuity. Today, more than half of Easy Equities clients (or ‘you-sers’ in their lingo) are millennials and 95% have never owned a share before joining Easy Equities. Some 6,000 clients from a total of 78,000 clients are under the age of 23. ‘What we really want to do is get that 12-year-old kid involved,’ insists Savage, like his daughter who pockets R20 for a job around the house and ploughs it into her growing portfolio. ‘I won’t be alive to see the impact. I just wish I could say I had the vision to start saving when I was that age.’

Savings groups: we’re in this together

One might well ask what role the stokvel plays in this story. Does this uniquely South African form of group saving contribute positively? Does the stokvel have potential as the vehicle for a national savings imperative? Grietjie Verhoef, Professor of Economic, Business and Accounting History at the University of Johannesburg, studies savings groups, or ROSCA (rotating savings and credit associations), across the continent. A problem she finds that is common to South Africa, Kenya, Ghana and Nigeria is a stark disconnect between savings groups and banks. ‘People are not transitioning to the formal sector,’ she explains. Members pool, save and draw their money without it ever registering in the banking system. The upshot is that this money is at best short-term saving, and inevitably the ‘saving pool’ funds defer consumption rather than investment.

Verhoef has found two primary reasons for these anomalies. ‘The first is a trust issue,’ she says. ‘Many poor South Africans have never interacted with the formal financial sector. But they grew up in a community with stokvels – everyone in their family was a member of a stokvel.’ Second is confidence in government. ‘In South Africa, unlike South Korea or Singapore, often people don’t feel that their tax money will be used to deliver a firm outcome.’ Those stokvel members who agree to speak to her for research purposes insist on anonymity while explaining their reluctance to make their savings visible to the revenue services. ‘Just imagine all those weekly contributions of a few hundred rand were available for good, long-term investment,’ she asks. ‘What we need is a sense that we are all in this together.’

> **“All speech is vain and empty unless it be accompanied by action.”**
>
> *Demosthenes (384BC-322BC)*
> *Greek statesman and orator*

Sixteen

No miracle needed: two steps to saving the future

Today was determined yesterday, and tomorrow is determined by today.

Two steps are needed to ‘save the future’. The first step is an acknowledgement that we can’t turn back time. We can despair decisions taken, we can regret opportunities lost and we can repent at leisure. But we can never turn back time to change our present circumstances. Today was determined yesterday, and tomorrow is determined by today. Our future selves will live in a world determined by today’s decisions.

English recording artist, radio presenter and musical theatre actress, Beverley Knight (MBE) puts this elegantly in Shoulda Woulda Coulda (2002):

> *I could see in the distance all the dreams that were clear to me*
> *Every choice that I had to make left you on your own*
> *Somehow the road we started down had split asunder*
> *Too late to realise how far apart we’d grown.*
>
> *How I wish i, wish I’d done a little bit more*
> *Now shoulda woulda coulda, means I’m out of time*
> *‘Cause shoulda woulda coulda, can’t change your mind*
> *And I wonder, wonder, wonder what I’m gonna do*
> *Shoulda woulda coulda are the last words of a fool.*

If we commit to a course of action, the second step is to get from the idea to action. Here, it seems apt to conclude with Franklin D. Roosevelt’s words taken from his first inaugural address (1933):

> *… let me assert my firm belief that the only thing we have to fear is fear itself – nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance. In every dark hour of our national life a leadership of frankness and vigor has met with that understanding and support of the people themselves which is essential to victory.*

In squaring up to our condition, and the circumstances we find ourselves in as a country and a society, talk will not change our reality and hoping for a different tomorrow will not bring a New Deal. From grand plans to small nudges, saving tomorrow starts today. The arguments, evidence and tools set out in this note show that this is not the stuff of miracles, false hope or naïve optimism. These are common problems with common ingredients, solved by common sense and common purpose.

Seventeen

References

Abebe, G., Tekle, B. and Mano, Y. (2016) Changing Saving and Investment Behavior: The Impact of Financial Literacy Training and Reminders on Micro-Businesses. Centre for the Study of African Economies, University of Oxford, Working Paper Series 2016-08.

Adebiyi, M.A. (2005) Saving-Growth Relationship in Nigeria: An Empirical Evidence, African Review of Money Finance and Banking, 2005: 159-178.

Ahiakpor, J.C.W. (1995) A Paradox of Thrift or Keynes's Misrepresentation of Saving in the Classical Theory of Growth? Southern Economic Journal, 62(1): 16-33.

Akbas, M., Ariely, D., Robalino, D. and Weber, M. (2016) How to Help Poor Informal Workers to Save a Bit: Evidence from a Field Experiment in Kenya. Institute of Labour Economics, Discussion Paper 10024.

Alvarez-Cuadrado, F. and Vilalta, M.E. (2012) Income Inequality and Saving, IZA Discussion Paper, No. 7083.

Ando, A and Modigliani, F (1963) The Life Cycle Hypothesis of Saving: Aggregate Implications and Tests, American Economic Review, 53(1): 55-84.

Attanasio, O.P., Picci, L. and Scorcu, A.E. (2000) Saving, Growth, and Investment: A Macroeconomic Analysis Using a Panel of Countries, The Review of Economics and Statistics, 82(2): 182-211.

Barr, N. (2012) Economics of the Welfare State. Oxford University Press: Oxford.

Batsaikhan, U. and Demertzis, M. (2018) Financial Literacy and Inclusive Growth in the European Union. Brugel Policy Contribution, Issue No. 8. Available via bit.ly/2lNoRoX accessed 15 March 2019.

Berlemann, M. and Wesselhöft, J-E. (2012) Estimating Aggregate Capital Stocks Using the Perpetual Inventory Method: New Empirical Evidence for 103 Countries. Working Paper No. 125, Department of Economics, Fächergruppe Volkswirtschaftslehre.

Bewley, T. (1977) The Permanent Income Hypothesis: A Theoretical Formulation, Journal of Economic Theory, 16(2): 252-292.

Bresciani-Turroni, C. (1936a) The Theory of Saving: The Forms of the Saving Process, Economica, 3(9): 1-23.

————— (1936b) The Theory of Saving: Disequilibrium between Saving and Investment During the Trade Cycle, Economica, 3(10): 162-181.

Buettner, D. (2018) The Blue Zone of Happiness. New York Times: New York.

Carroll, D., Choi, J., Laibson, D., Madrian, B. and Metrick, A. (2009) Optimal Defaults and Active Decisions. Quarterly Journal of Economics, Volume 124(4): 1639–1674.

Chang, H. (1993). The Political Economy of Industrial Policy in Korea. Cambridge Journal of Economics, Volume 17, Issue 2, June 1993.

Chetty, R., Friedman, J., Leth-Peterson, S., Nielsen, T., and Olsen, T. (2014) Active versus Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark. National Bureau of Economic Research. Working paper.

Collard, S. and McKay, S. (2006) Closing the Savings Gap? The Role of the Saving Gateway. Journal of the Local Economy Policy Unit, Volume 21, Issue 1.

Cohen, P. (201) Using Gambling to Entice Low-Income Families to Save, New York Times, August 30, 2014. Accessed 30 August 2014 via www.nytimes.com/2014/08/31/business/using-gambling-to-entice-low-income-families-to-save.html?_r=0.

Cole, S., Iverson, B., and Tufano, P. (2014) Can Gambling Increase Saving? Empirical Evidence on Prize-Linked Savings Accounts. Saïd Business School Working Paper 2014-10.

Commission on Growth and Development (2008) The Growth Report: Strategies for Sustained Growth and Inclusive Development. World Bank, Washington DC.

Deaton, A. (2005) Franco Modigliani and the Life Cycle Theory of Consumption.Paper presented at the Convegno Internazionale Franco Modgliani, Academia Nazionale dei Lincei, Rome, 17th-18th February 2005.

Department of Finance (1995) Growth Employment and Redistribution: A Macroeconomic Strategy. Department of Finance: Pretoria, South Africa.

Domar, E. (1946) Capital Expansion, Rate of Growth, and Employment, Econometrica, 14(2): 137–147.

Easterly, W. and Levine, R. (1999) It's Not Factor Accumulation: Stylized Facts and Growth Models. Mimeo, World Bank and University of Minnesota, September 1999.

Elbadawi, I.A. and Mwega, F.M. (2000) Can Africa's Saving Collapse Be Reversed? The World Bank Economic Review, 14(3), 415-443.

Faulkner, D., Loewald, C. and Makrelov, K. (2013) Achieving Higher Growth and Employment: Policy Options for South Africa, Economic Research Southern Africa (ERSA). ERSA Working Paper No. 334.

Frączek, B. (2011) The Factors Affecting the Level of Household Savings and their Influence on Economy Development, Eighth International Scientific Conference Financial Management of Firms and Financial Institutions. Ostrava, Faculty of Economics, Finance Department 6–7 September 2011.

Friedman, M. (1956) A Theory of the Consumption Function. Princeton, New Jersey: Princeton University Press.

————— (1957) The Permanent Income Hypothesis, National Bureau of Economic Research, 20-37.

Fund, J. (2015) In Singapore, Lee Kuan Yew Built a Welfare State the Works. National Review, March 27, 2015. Available via bit.ly/2zeZA14 date of access 21 April 2019.

Furceri, D. and Mourougane, A. (2010) Influence of Age Structure on Savings and Social Spending. ADBI Working Paper.

Garon, S. (2011) Beyond our Means: Why America Spends while the World Saves. Princeton University Press: Princeton, New Jersey.

Gummerson, E. and Schneider, D. (2013) Eat, Drink, Man, Woman: Gender, Income Share and Household Expenditure in South Africa. Social Forces, Volume 91, Issue 3.

Harjes, T. and Ricci, L.T. (2005) What Drives Saving in South Africa? in M Nowak and L A Ricci (eds), Post-Apartheid South Africa. The First Ten Years, pp 48-63. International Monetary Fund, Washington, DC.

Harrod, R.F. (1939). An Essay in Dynamic Theory, Economic Journal, 49(193): 14–33.

Hassink, R. (1999) South Korea's Economic Miracle and Crisis: Explanations and Regional Consequences. European Planning Studies, Volume 7, Issue 2.

Hyung, J. (2013) An Analysis on the Effect of Old Age Dependency Ratio on Domestic Saving Rate. Thesis, Deptartment of Economics, University of California, Berkely.

Ismail, T. (2015) Moving from Producer-Led to User-Led Innovations in Subsistence Markets. Strategic Marketing, October-November 2015.

Jafta, R. and Boshoff, W. (2008) Achieving Asgisa's Aspirations: The Role of the National System of Innovation. TIPS Forum Paper, October 2008.

References

Karlan, D., Ratan, A.L. and Zinman, J. (2014) Savings by and for the Poor: A Research Review and Agenda, Review of Income and Wealth, 60(1): 36–78.

Kasongo, A. and Ocran, M.K. (2017) Determinants of Household Saving in South Africa. Working Paper: Department of Economics, University of the Western Cape.

Kempson, E., McKay, S. and Collard, S. (2005) Incentives to Save: Encouraging Saving Among Low-Income Households. Final Report on the Saving Gateway Pilot Project. Personal Finance Research Centre,University of Bristol.

Kearney, M., Tufano, P., Guryan, J. and Hurst, E. (2010) Making Savers Winners: An Overview of Prize-Linked Savings Products, National Bureau of Economic Research, Working Paper 116433.

Khan, A. (2011) Causes of Low Per capita Income of Pakistan and Developing Countries, Economics and Education. Accessed 28 November 2015 via ahsankhaneco.blogspot.co.za/2011/12/causes-of-low-per-capita-income-of.html.

Kim, K. (1991) The Korean Miracle (1962-1980) Revisited: Myths and Realities in Strategy and Development. Kellogg Institute Working Paper.

Korea Development Institute and Ministry of Strategy and Finance (2012) Modularization of Korea's Development Experience, available via bit.ly/2srHbLk accessed 21 March 2019.

Kotlikoff, L.J. (2001) Essays on Saving, Bequests, Altruism, and Life-Cycle Planning. Cambridge: MIT Press.

Kraay, A. (1997) Household Saving in China. World Bank Economic Review, Vol 14(3): 547-70.

Lafferty Group (2018) Lafferty Banking 500: Benchmarking the World's Best Banks. Available via lafferty.com/doc/D279771.pdf accessed 20 April 2019.

Leland, H. (1968) Saving and Uncertainty: The Precautionary Demand for Saving,Quarterly Journal of Economics, 2: 465-473.

Liu, S. and Hu, A. (2013) Household Savings in China: The Keynesian Hypothesis, Life-Cycle Hypothesis, and Precautionary Saving Theory, The Developing Economies, 51(4): 360–87.

Loayza, N., Schmidt-Hebbel, K. and Servén, L. (2000) Saving in Developing Countries: An Overview, The World Bank Economic Review, 14(3): 393-414.

Louw, L. (2006) Habits of Highly Effective Countries: Lessons for South Africa, The Law Review Project, October 2006.

Lusardi, A. (2008) Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs. NBER Working Paper No. 13824. Issued in February 2008.

Mabunda, J. (1999) Capital Flows, Emerging Markets and South Africa, Master's Thesis, Department of Economics, Rand Afrikaans University.

Madrain, B. and Shea, D. (2000) The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior. Quarterly Journal of Economics, Volume 116, Issue 4.

McBride, W. (2013) How Tax Reform Can Address America's Diminishing Investment and Economic Growth. Tax Foundation Fact Sheet No. 395.

Mesa-Lago, C. and Bertranou, F. (2016) Pension Reforms in Chile and Social Security Principles: 1981–2015. International Social Security Review, Volume 69, Issue 1, January/March 2016.

Miles, D., Scott, A. and Breedon, F. (2012) Macroeconomics: Understanding the Global Economy, Third Edition. John Wiley and Sons: Hoboken, New Jersey.

Minns, J. (2001) Of Miracles and Models: The Rise and Decline of the Developmental State in South Korea. Third World Quarterly, Volume 22, Issue 6.

Modigliani, F. and Brumberg, R.H. (1954) Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data, in Kurihara, K K (ed.) Post-Keynesian Economics. New Brunswick, NJ Rutgers University Press.

Modigliani, F. and Cao, S.L. (2004) The Chinese Saving Puzzle and the Life-Cycle Hypothesis, Journal of Economic Literature: 42(1): 145-170.

Mohamed, S. (2014) The Impact of International Capital Flows on the South AfricanEconomy Since the End of Apartheid. Accessed 2 December 2014 via www.policyinnovations.org/ideas/policy library/data/01386/.

National Planning Commission (2013) National Development Plan 2030: Our Future Make It Work. National Planning Commission: Pretoria, South Africa.

Odhiambo, N.M. (2007) The Determinants of Savings in South Africa: An Empirical Investigation, African Finance Journal, 9(2): 37-52.

OECD (1998) The Chilean Pension System, Working Paper Series: Maintaining Prosperity in an Ageing Society, AWP 5.6.

Porter, M. (2008) On Competition. Harvard Business Review Books: Boston, Massachusetts.

Prinsloo, J.W. (2000) The Saving Behaviour of the South African Economy, South African Reserve Bank Occasional Paper, No. 14.

Ranis, G. (2004) Arthus Lewis'Contribution to Development Thinking and Policy. Economic Growth Center, Yale University: Discussion Paper No. 891.

Rassool, C. and Witz, L. (1996) South Africa: A World in One Country. Cahiers d'Études Africaines. Vol. 36, No. 143: 335-371.

Rodrik, D. (1995) Getting Interventions Right: How South Korea and Taiwan Grew Rich. Economic Policy, Volume 10, Issue 20.

Saville, A., Firth, K. and Madinginye, T. (2015) Saving South Africa: The Investec-GIBS Savings Index. Published by Investec South Africa. Accessed 25 June 2018 via https://bit.ly/2ULqCJK.

Saville, A. (2018) Saving South Africa: The Investec-GIBS Savings Index. Published by Investec South Africa. Accessed 2 March 2019 via https://bit.ly/2JqJK9W.

Schmidt-Hebbel, K. and Servén, L. (1997) Saving Across the World: Puzzles and Policies, World Bank Discussion Paper,No. 354.

Schwab, K. and Sala-i-Martín, X. (2014) The Global Competitiveness Report: 2014-2015. World Economic Forum, Geneva.

Sguazzin, A. (2019) South Africa's Decline Is Worst Among Nations Not at War, Model Shows. Bloomberg, April 17, 2019. Access 19 April 2019 via bloom.bg/2UGNafb.

Shisana, O., Labadarios, D., Rehle, T., Simbayi, L., Zuma, K., Dhansay, A., Reddy, P., Parker, W., Hoosain, E., Naidoo, P., Hongoro, C., Mchiza, Z., Steyn, N.P., Dwane, N., Makoae, M., Maluleke, T., Ramlagan, S., Zungu, N., Evans, M.G., Jacobs, L., Faber, M. and SANHANES-1 Team (2013) South African National Health and Nutrition Examination Survey (SANHANES-1). Cape Town: HSRC Press.

Sihlobo, W. (2019) A Record Year for SA's Agricultural Exports. Fin24. Accessed 20 March 2019 via bit.ly/2N1zLat.

Singh, A. (1998) Savings, Investment and the Corporation in the East Asian Miracle, Journal of Development Studies, Volume 34, Issue 6.

Solow, R.M. (1956) A Contribution to the Theory of Economic Growth, Quarterly Journal of Economics, 70(1): 65-94.

Soto, M. (2017) The Chilean Pension Reform: 25 years Later. Pensions: An International Journal. Volume 12, Issue 2, March 2007.

Statistics South Africa (2015) Labour Market Dynamics in South Africa 2014. Statistics South Africa: Pretoria.

References

Studwell, J. (2013) How Asia Works: Success and Failure in the World's Most Dynamic Region. Profile Books: London.

Sueyoshi, A. (2010) An Empirical and Theoretical Literature Review of Endogenous Growth in Latin American Economies, Journal of the Faculty of International Studies Utsunomiya University, 29: 35-48.

Sunstein, C.R. and Thaler, R.H. (2003) Libertarian Paternalism Is Not an Oxymoron, University of Chicago Law Review, 70(4): 1159-1202.

Swan, T.W. (1956) Economic Growth and Capital Accumulation, Economic Record, 32(2): 334–361.

Thaler, R. and Bernartzi, S. (2004) Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving, Journal of Political Economy, Volume 112.

Thanoon, M.A. and Baharumshah, A.Z. (2007) Private Savings, Growth, Dependency Ratio and Foreign Capital: Some Issues and Lessons from Malaysia, Savings and Development, 31(4): 399-417.

Traut-Mattausch, E. and Jonas, E. (2011) Why Do People Save? The Influence of Financial Satisfaction and Income on Saving, Journal of Psychology,219(4), 246-252.

Tversky, A., and Kahneman, D. (1991) Loss Aversion in Riskless Choice: A Reference-Dependent Model. Quarterly Journal of Economics, Volume 106, Issue 4.

United Nations Development Programme (UNDP) (2014) Human Development Report: Sustaining Human Progress. United Nations Development Programme. New York.

Van Nieuwerk, A. (2014) South Africa's National Development Plan and its Foreign Policy: Exploring the Interface. Background Paper: Wits School of Governance, November 2014.

Ventura, L. (2018) Household Saving Rates 2018. Global Finance. Date of access 20 April 2019 accessed via bit.ly/2GnX9Mz.

Weeks, J. (1999) Stuck in Low GEAR? Macroeconomic Policy in South Africa, 1996-1998, Cambridge Journal of Economics, 6: 795-811.

Winkler, G. (2014) Encouraging Savings Behavior through Conditional Cash Transfers: Lessons from Latin America. Policy Perspectives, 21: 92-104.

World Bank (1999) Saving: What Do We Know and Why Do We Care? Economic Policy, World Bank, No. 28: August 1999.

World Economic Forum (2017) Global Competitiveness Report 2017-18. World Economic Forum. Accessed 20 January 2019 via https://bit.ly/2jZK8Rg.

World Economic Forum (2018) The Inclusive Development Index 2018. World Economic Forum. Accessed 20 January 2019 via bit.ly/2G4S0YU.

Zarenda, H. (2013) South Africa's National Development Plan and Its Implications for Regional Development. TRALAC Working Paper No. D13WP01/2013, June 2013.