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South Africa

Geographic Futures

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The page provides an in-depth analysis of South Africa's current and projected future development, examining various sectoral scenarios and their potential impacts on the country's growth. It explores the individual and combined impact of eight sectors including demographic, economic, and infrastructure-related outcomes for South Africa to 2043. The analysis offers insights into policy actions that could enhance South Africa's developmental trajectory.

Please see About this Site for more information about the International Futures (IFs) modelling platform we use to develop the various scenarios.

Summary

We begin this page with an overview of South Africa's geographical and political landscape, noting its status as one of eight upper-middle-income countries in Africa and its membership in regional bodies such as the South African Customs Union (SACU) and the Southern African Development Community (SADC). The introduction highlights South Africa's diverse geography and its wide range of climatological conditions. It covers its complex history, from the apartheid era and the economic decline during that period to the transition to democracy in 1994, which brought significant socio-economic reforms. It also discusses the country's challenges, including inequality, unemployment, deindustrialisation, and its ongoing efforts to improve investor confidence and infrastructure despite recent political and governance issues.

The following section analyses the Current Path for South Africa, which informs the country's likely development trajectory to 2043. It is based on current development trends and assumes that no significant shocks would occur in a 'business as usual' future.

The Current Path suggests that South Africa's:

- Population is likely to grow from 61.4 million in 2023 to 73.4 million by 2043, together with a declining fertility rate, an increasing median age from 28.7 years in 2023 to 32.6 years by 2043, and an ageing population with those aged 65 and older increasing from 6.3% in 2023 to 10.3% in 2043.

- Urbanisation will continue to rise, with the proportion of the population living in urban areas increasing from 68% in 2023 to 75% by 2043. This will place pressure on urban infrastructure and services, necessitating substantial investments to accommodate the growth, safely and sustainably.

- Economy will grow steadily, with GDP increasing by 62%, from US$392.1 billion in 2023 to US$634.1 billion by 2043. However, this growth is relatively modest compared to other upper-middle-income countries (UMICs), reflecting ongoing structural challenges in the economy.

- Poverty levels are anticipated to remain significant. The percentage of people living below the upper-middle-income (UMIC) poverty line of US$6.85 per day will decline modestly from 62.6% in 2023 to 56.6% in 2043. Poverty rates are extraordinarily high, exacerbated by persistent inequality and high unemployment.

- The informal economy will remain a small part of the overall economy, with its contribution to GDP declining slightly from 13% in 2023 to just below 12% in 2043. The limited growth of the informal sector constrains economic opportunities for those outside the formal labour market, impacting poverty reduction efforts.

- Development challenges will persist, including unemployment and underinvestment in critical areas such as healthcare and education. The Current Path underscores the need for effective structural reforms and policy interventions, as outlined in the National Development Plan (NDP), to promote inclusive growth and improve socio-economic outcomes.

The analysis then compares progress on the Current Path with eight sectoral scenarios: Demographics and Health; Agriculture; Education; Manufacturing; the African Continental Free Trade Area (AfCFTA); Large Infrastructure and Leapfrogging; Financial Flows; and Governance. Each scenario is benchmarked to present an ambitious but reasonable aspiration in that sector.

- The Demographics and Health scenario projects significant improvements in health outcomes, with life

expectancy increasing to 74.3 years by 2043, compared to 70.4 years on the Current Path. Infant mortality rates decline from 32.2 per 1 000 live births in 2023 to 20.6 per 1 000 by 2043, and new treatments mean substantially lower AIDS-related deaths. This scenario highlights the boost in the economic productivity of the working-age population due to better health and reduced disease burden.

- The Agriculture scenario sees average crop yields increase from 5.5 metric tons per hectare in 2023 to 8.2 metric tons per hectare by 2043, compared to the Current Path of 5.3. As a result, crop production will reach 96 million metric tons by 2043, significantly exceeding the projected demand. Targeted investments in the sector boost its contribution to GDP, increases export earnings, reduce import dependence, and lift approximately 950 000 additional people out of poverty by 2043 compared to the Current Path in 2043.

- In the Education scenario, upper-secondary completion rates increase to nearly 77% by 2043, compared to 64% in the Current Path. In 2023, they stood at 49%. Additionally, the scenario includes a 13% quality improvement in primary and 17% improvement in the quality of secondary education. Mean years of education among the 14- to 24-year-old age cohort reach 10.8 years by 2043, contributing to a more skilled and knowledgeable workforce.

- In the Manufacturing scenario the contribution of manufactures to GDP increases from 19% (US$74.6 billion) in 2023 to 24% in 2043, almost US$44 billion larger than the 2043 Current Path. This growth increases the total size of the South African economy by 9.6% to US$695 billion in 2043 instead of US$634 billion. The scenario includes measure to reduce inequality and increase employment. It increases welfare transfers from skilled to unskilled workers and male and female labour participation rates. The latter reflects a focus on employment-intensive light manufacturing industries and the former policies to mitigate inequality associated with manufacturing growth. These measures demonstrate the potential of targeted industrial and tax policies to strengthen economic growth, reduce inequality and lower poverty, with an estimated 3.1 million fewer people living below the US$6.85 poverty line for UMICs by 2043.

- In the African Continental Free Trade Area (AfCFTA) scenario, South Africa's total trade (exports plus imports) as a percentage of GDP will increase from 54.5% in 2023 to 75.5% by 2043, compared to 62% on the Current Path. South Africa's GDP will be 9.2% larger by 2043, amounting to an additional US$58.3 billion compared to the Current Path. GDP per capita will increase to US$16 330 in the AfCFTA scenario, an improvement of more than 6% over the Current Path, highlighting the substantial benefits of enhanced regional and global trade integration.

- The Large Infrastructure and Leapfrogging scenario forecasts significant increases in infrastructure investment and capacity, leading to an economy that is US$8.1 billion larger by 2043 compared to the Current Path. Additionally, GDP per capita would be US$140 higher, and an extra 790 000 people would be lifted above the UMIC poverty line. The scenario boost fixed broadband subscriptions to 34.8 per 100 people by 2043, up from the Current Path of 23.1. These improvements drive economic growth and enhance social and environmental outcomes, including a substantial reduction in carbon emissions through more renewables, nuclear and gas. This is done on the back of electricity access increasing to 100% by 2043, compared to 91% on the Current Path.

- The Financial Flows scenario envisions a significant rise in FDI inflows, reaching 4.4% of GDP by 2043, compared to 2.1% on the Current Path. This increase would boost South Africa’s FDI stock to US$331 billion, 76% higher than the Current Path of US$188 billion. The scenario will result in substantial economic benefits, including an economy that is US$31 billion larger by 2043, and an increase in per capita income by US$510 compared to the Current Path. Achieving these elevated FDI levels would require policy certainty, regulatory improvements and enhanced credit ratings, which would accelerated growth and improve living standards for South Africans.

- The Governance scenario will have the second largest impact on poverty reduction due to a 12% improvement in government effectiveness above the 2043 Current Path, aiming to place South Africa ahead of Namibia and closer to Botswana in governance rankings. This scenario focuses on reducing corruption, enhancing public service capacity and implementing effective policies to create a more transparent and accountable government, ultimately supporting economic growth, with an expected boost in GDP per capita of US$880 above the 2043 Current Path.

In the third section, we compare the impact of each of these eight sectoral scenarios with one another and subsequently with a Combined scenario (the integrated effect of all eight scenarios). In our forecasts, we measure progress on various dimensions such as economic size (in market exchange rates), gross domestic product per capita (in purchasing power parity), extreme poverty, carbon emissions, the changes in the structure of the economy, and selected sectoral dimensions such as progress with mean years of education, life expectancy, the Gini coefficient or reductions in mortality rates. Because we include large increases in welfare transfers in the Manufacturing scenario it does best in poverty reduction, followed by the Governance and Agriculture scenarios. The Manufacturing scenario also delivers the highest GDPPC by 2043, followed by the AfCFTA and Governance scenarios.

The Combined scenario forecasts:

- a substantial 34% increase in GDP per capita above the Current Path by 2043. This equates to an additional US$ 5 290 per person, indicating a more prosperous economic outlook for most South Africans. As a result, GDP per capita will recover to its peak 2013 level by 2030, six years earlier than the Current Path. This reflects a more rapid economic recovery following years of stagnation and decline.

- among the sectoral scenarios, the Manufacturing scenario shows the largest impact on GDP per capita with a 6.5% increase (US$950) above the Current Path by 2043. This is followed by gains in the AfCFTA (6.2%), G overnance (5.7%) and Agriculture (4.5%) scenarios, highlighting the importance of diverse sectoral interventions for broad-based economic development.

- a modest reduction in the poverty rate to 47% by 2043, down from 62.6% in 2023. This represents a meaningful decrease of 6.5 million fewer poor people compared to the Current Path, still leaving South Africa with a large poverty burden.

- The steady replacement of coal by gas, other renewables and nuclear (reflected in the Large Infrastructure and Leapfrogging scenario) will rapidly reduce South Africa's carbon emissions such that the emissions in the Combined scenario in 2043 will be 36% below the Current Path in spite of the fact that the economy will be 57% larger.

We end this page with a summarising conclusion offering key recommendations for decision-making. To achieve sustainable growth and reduce inequality, South Africa must focus on competent leadership, evidence-based policies, and fostering a culture of accountability and inclusivity. This requires a shift towards an export-led growth path and significant investments in human capital, infrastructure and green technologies, supported by both public and private sectors.

Introduction

Chart 1: Political map of South Africa

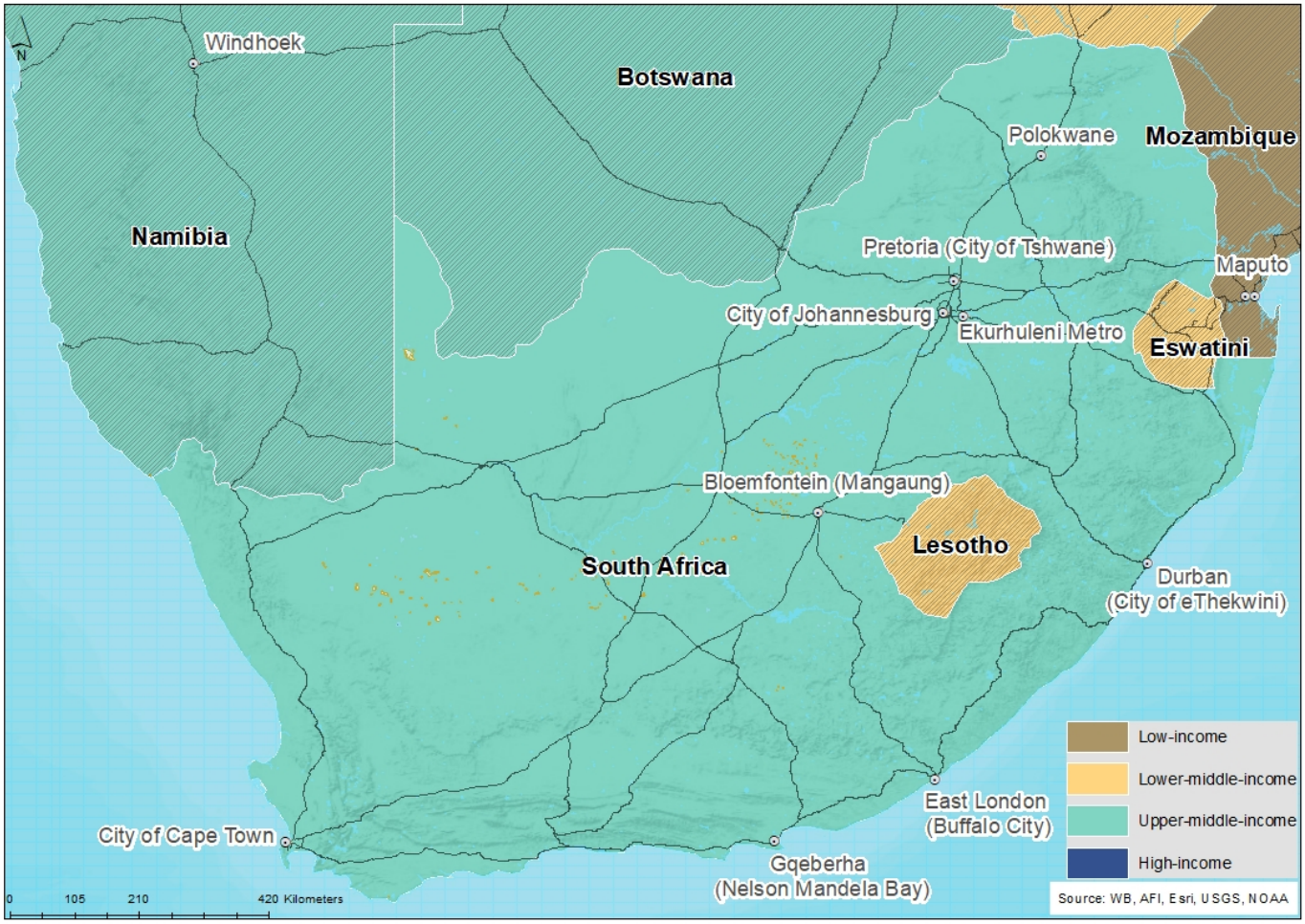


Chart 1 is a political map of South Africa.

Located at the southernmost tip of Africa, the Republic of South Africa is one of eight upper-middle-income countries (UMICs) in Africa. It is a member of the South African Customs Union (SACU) and the Southern African Development Community (SADC) and is situated in the subtropical zone of the southern hemisphere. Its vast coastline stretches from the tropical border of Mozambique in the warm Indian Ocean, around Africa's most southern tip and all the way to the border of Namibia's cold Atlantic Ocean. The country's geographical location and complex topography means that South Africa is subject to a range of climatological conditions. Annual rainfall is highly variable following a declining pattern from the wet and humid eastern coast to the arid western coast. South Africa shares borders with Namibia (which it previously administered), Botswana and Zimbabwe to the north, Mozambique and Eswatini to the east and completely surrounds the independent Kingdom of Lesotho.

South Africa has nine provinces. The economic heartland, the province of Gauteng, includes the commercial hub Johannesburg, as well as the administrative capital Tshwane (Pretoria). The legislature, consisting of a National Assembly and National Council of Provinces, is located in Cape Town in the Western Cape province. Although the smallest province geographically, Gauteng has the largest population at more than 16 million people, followed by KwaZulu-Natal on the east

coast with almost 12 million inhabitants. The Western Cape, Eastern Cape and Limpopo have between 6 and 7 million people each. Mpumalanga province has 4.8 million people, North West province has 4.2 million. The Free State and Northern Cape provinces have the smallest populations at 3 and 1.3 million, respectively.

Formerly the Union of South Africa, the country became an independent republic in 1961 and was, from 1948 to 1990, ruled by the whites-only National Party, which pursued policies of racial subjugation and separation known as apartheid. As the apartheid crisis deepened, for the two decades from 1973 to 1993, South Africa generally experienced negative per capita economic growth to the extent that, by 1993, incomes had declined by 11% – equal to the level in 1970. Capital investment decreased, and ever-larger portions of the national budget had to fund recurring expenditure. Infrastructure decayed, and efficiencies declined.

Internal revolt against the racial system of apartheid saw successive waves of unrest that, together with global pressure, led to the unbanning of several political parties, including the African National Congress (ANC), and the release of Nelson Mandela from prison in 1990. These events followed the collapse of the Soviet Union and several years of armed conflict with its neighbours, during which apartheid South Africa was increasingly isolated from the international community and under various types of sporting, arms and financial sanctions. When it assumed power in 1994, the ANC inherited a country with bare coffers but high expectations from its majority black support base, who believed that political change would rapidly redress the neglect they had suffered over generations.

The subsequent constitutional negotiations, the Convention for a Democratic South Africa or CODESA, resulted in a liberal constitution with a clear separation of powers and an entrenched bill of rights. The election of Mandela as president in 1994 set in motion a comprehensive, if inconclusive, process of social, economic and political re-engineering. Within the first three years, the democratic government introduced new labour legislation that modernised the South African labour market and protected worker rights. Democracy also meant the abolishment of the efforts to establish independent homelands for various black ethnic groups (the so-called Bantustans), although traditional chiefs were left in place. The fragmented, race-based education departments were merged into a non-racial education system, and separate administrations were brought together. The previous four provinces were divided into nine, each with local, provincial and national elected representatives. What had been a centralised, racially determined state with limited franchise adopted a universal franchise and a semi-federal model and extended political, economic and social rights to all citizens through a progressive Bill of Rights. South Africa has a free media, a independent judiciary and an active civil society.

A wide-ranging process of land restitution followed in the wake of an inquiry into the excesses of apartheid (the Truth and Reconciliation Commission). Concerted efforts were also made to alleviate extreme poverty and advance the interests of the majority black population.

In the years after its transition to democracy improved foreign perceptions of the attractiveness of doing business in South Africa translated into significant foreign financial inflows. Large segments of the South African economy were opened up to international competition, and labour productivity increased from 1995. For the next 15 years, until 2008, the country grew and income levels improved, yet much more slowly than they could have because the country lost out on a decade of the global commodities supercycle as a consequence of policies that necessarily prioritised redressing the socio-economic imbalance created by apartheid but effectively constrained growth.

The opening up of the South African economy also occurred when the explosive export-driven growth of China and other countries reached African shores. Not used to international competition and having decided to remove most of its previous tariffs and other protections, South Africa experienced deindustrialisation such that the World Bank, in 2024, wrote about a 15-year loss of economic growth momentum and underperformance compared to other middle-income countries.

Despite its challenges, South Africa vies with Nigeria for having the largest economy in Africa and relatively high average income per capita compared to most other countries in the region, although lower than Seychelles, Mauritius, neighbouring Botswana, Gabon and Equatorial Guinea. The South African economy is also more globally interconnected than most other African countries, reflected in its status as Africa's largest trading nation (by value). Colonialism, apartheid and recently poor governance have resulted in extreme levels of inequality, with high rates of poverty, unemployment, crime and violence, exacerbated by low productivity and a high-wage economy.

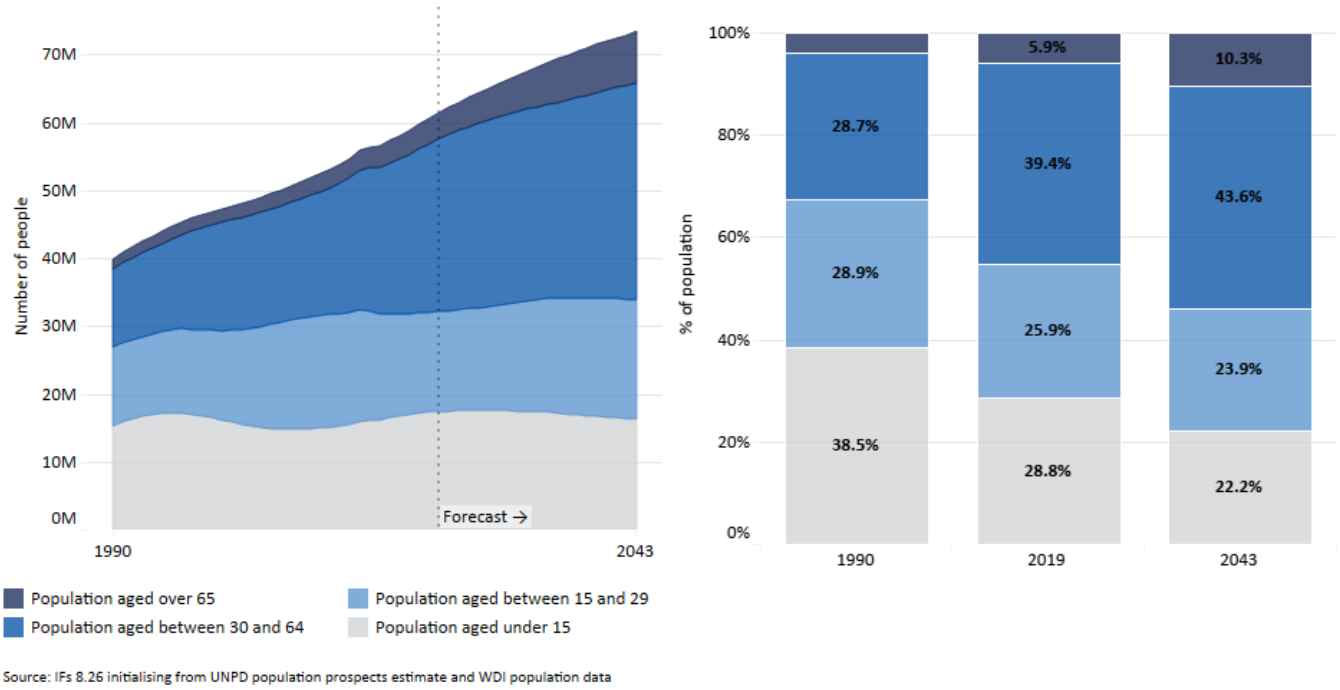
Unlike many other countries with similar challenges, South Africa has a relatively small informal economy (which contributes to its high unemployment rate), and an increasing portion of its population survives on social grants from the government. It has a thriving tourist industry, but declines in the contribution from the mining sector and competition from China have contributed to steady deindustrialisation. The country has a sophisticated private sector, highly developed financial markets, and substantial natural assets, although savings rates as a per cent of GDP are low, around eight percentage points below the average for upper-middle-income countries (UMICs).

Under the administration of former President Jacob Zuma, from May 2009 to early 2018, South Africa suffered from steadily lower levels of investor confidence, state capture and increased government inefficiencies with declining average incomes. Zuma was succeeded by Cyril Ramaphosa, who then had to contend with the COVID-19 global pandemic and slower economic growth on top of the divisions within the ruling ANC. Prospects are improving, however. Crippling electricity shortages started to ease in 2024 after more than a decade that hobbled growth when the government did not respond to repeated warnings of imminent shortages but remain a constraint on economic growth as the country belatedly scrambled to add additional capacity to the grid. Hard work will be required to avoid a similar situation related to water shortages despite several years of repeat warnings of an impending crisis. The demand for water in both Gauteng and eThekwini has grown rapidly, mainly due to population growth and lack of maintenance, resulting in large non-revenue water losses.

The ANC, which has won every election since the country's first democratic elections in 1994, saw its support plummeted to 40% with the elections in May 2024 as evidence of corruption, inaction and poor policy overwhelmed the country. Preceding elections have seen a steady decline in voter turnout, and politics is increasingly fragmented. In addition to the Western Cape, which has been governed by the Democratic Alliance since 2009, the ANC lost its majority in Gauteng, KwaZulu Natal and narrowly in the Northern Cape. The subsequent governing alliance (formally termed a Government of National Unity although not all parties are members) has given hope that it could unlock improved service delivery, reduce rampant corruption and reduce crime.

South Africa: Current Path

Chart 2: Population structure in the Current Path, 1990-2043



Source: IFs 8.26 initialising from UNPD population prospects estimate and WDI population data

Chart 2 presents the Current Path of the population structure from 1990 to 2043.

Population dynamics play an essential role in economic development, and South Africa has clear potential given the positive size of its working-age population to dependants which points to the potential of a demographic dividend. However, its population is in poor health, primarily due to the effect of HIV/AIDS, compounded by various other factors examined below as part of the Demographics and Health scenario, and education quality is low (see the Education scenario below).

South Africa is one of the few African countries that conducts a regular population census. However, the most recent Census 2022 was done digitally during the COVID-19 pandemic, and since the results depart from other projections, they need to be treated with some care. Therefore, our analysis does not fully incorporate these census results. For example, according to Census 2022, the population increased to more than 62 million in 2022, higher than expected, whereas our 2022 number is 60.6 million.

Given its history, race remains important in South Africa. Black Africans make up the majority of the population at 81.4%, followed by the coloured population at 8.2%. The white population percentage declined to 7.3% in 2022 from 8.9% observed in 2011, while that for Indians/Asians increased slightly from 2.5% in 2011 to 2.7% in 2022.

The median age at 28 years in 2023 is the sixth highest in Africa behind Algeria, Morocco, Tunisia, Seychelles and Mauritius. By 2043, South Africa's median age will have increased to 32.6 years.

The country's population will grow to approximately 66.4 million by 2030 and 74.4 million by 2043. Its average total fertility rate fell from 3.7 births per woman in 1990 to around 2.5 in 2023. South Africa will get to replacement level of 2.1 births by

2037. However, large inward migration flows from the wider region have introduced uncertainty in these forecasts. Our Current Path is for net inflows of two million migrants to South Africa from 2024 to 2043.

In addition, the population is slowly aging. Whereas nearly 6.3% of South Africans were 65 and older in 2023, by 2043, that portion will have increased to 10.3%. While this is not a significant trend compared to many developed countries experiencing rapid ageing, it does indicate a gradual demographic shift that will increase healthcare costs given the expenses associated with treating non-communicable diseases typical of older populations. At the same time, a smaller child population could provide a much-needed opportunity for quality improvements in education.

Chart 3: Population distribution map, 2023

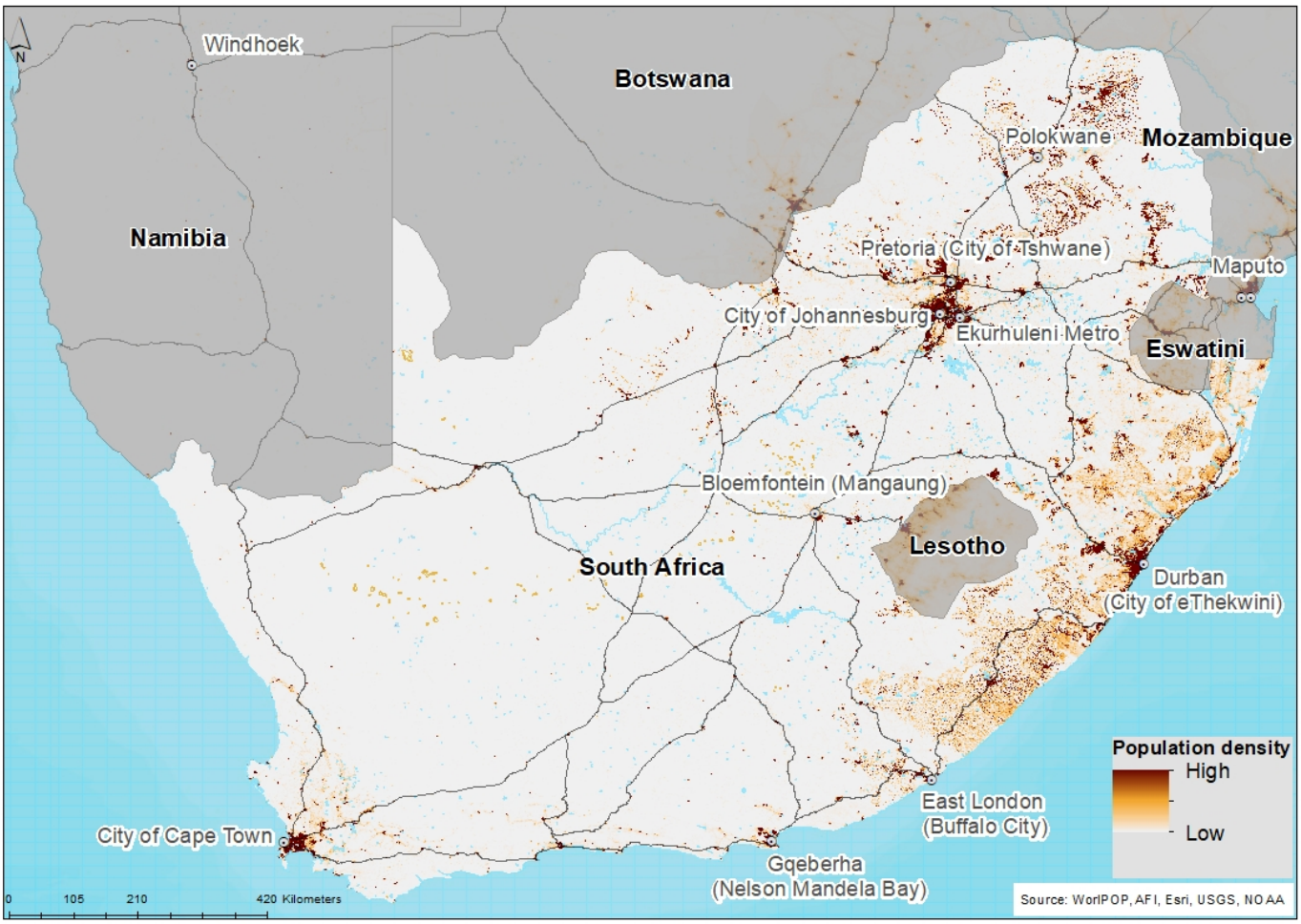
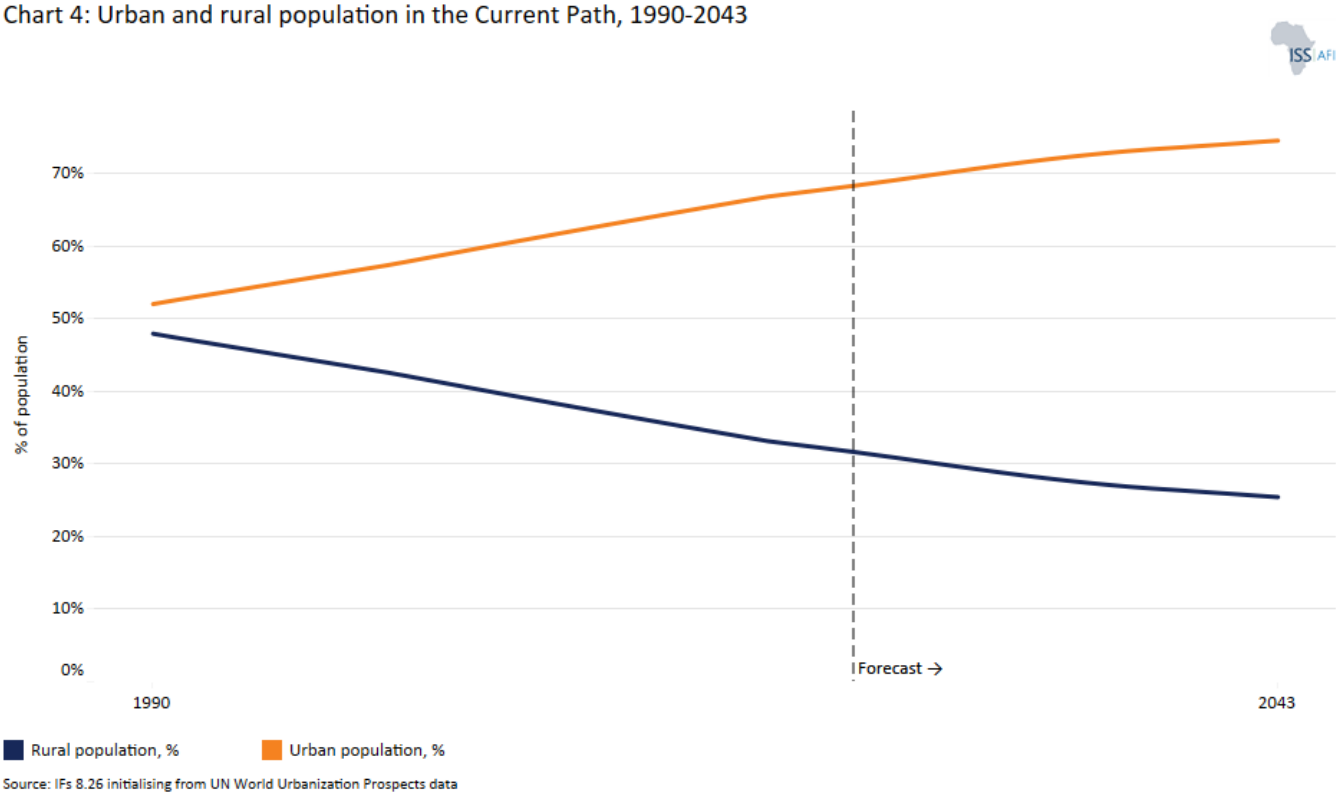


Chart 3 presents a population distribution map for 2023.

The average population density in South Africa is two persons per square kilometre, roughly equivalent to the average for Africa. The density ranges from dense metropolitan areas such as Johannesburg to the sparsely populated plains of the Karoo in the Northern Cape. The coastal areas of KwaZulu-Natal and the Eastern Cape are more populated, while the Northern Cape, with its arid climate, has the lowest population density. There is considerable population movement between provinces. The Eastern Cape, Limpopo and Kwa-Zulua Natal generally record the highest rates of outward migration, with Gauteng and the Western Cape recording the highest inward migration as people search for economic opportunities. This migration pressures urban areas, increasing demand for housing, infrastructure and basic services. Climate change also intensifies resource insecurities, contributing to intra- and inter-provincial migration. Factors like drought in the Northern Cape province and soil erosion and degradation in the provinces of Limpopo and Free State drive people, particularly people with low incomes, to migrate to urban areas for better opportunities.

Immigration trends from StatsSA reveal a steadily growing migrant population dominated by young adults in the region, particularly Zimbabwe and, to a lesser extent, Mozambique, Lesotho and Malawi, mostly gravitating towards the Gauteng province. Zimbabwe leads in sending students for higher education, while Ethiopia, the Democratic Republic of Congo and Somalia are significant sources of refugees. Migration inflows have become an emotional issue in South African politics with accusations of foreigners involved in crime and taking jobs from South Africans.

Chart 4: Urban and rural population in the Current Path, 1990-2043



Source: IFs 8.26 initialising from UN World Urbanization Prospects data

Chart 4 presents the urban and rural population, from 1990 to 2043.

South Africa's cities and urban areas have undergone significant transformation over the past century, driven initially by apartheid policies, industrialisation and economic opportunities. Steady migration from rural areas to cities and towns led to a sharp increase in urbanisation. At the start of the 20th century, only about 10% of the population lived in urban areas. By 1960, nearly 47% of the population resided in urban areas and by 1987, this figure had surpassed 50%, marking a significant shift towards urbanisation. By 2023, 68% of South Africa's population lived in more than 1 200 cities and towns connected by a complex network of roads and highways. South Africa is the 3rd most urbanised country in SADC after Botswana and Angola. We forecast that by 2043, an estimated 75% of South Africans will reside in urban areas, a testament to the progress made in urbanisation.

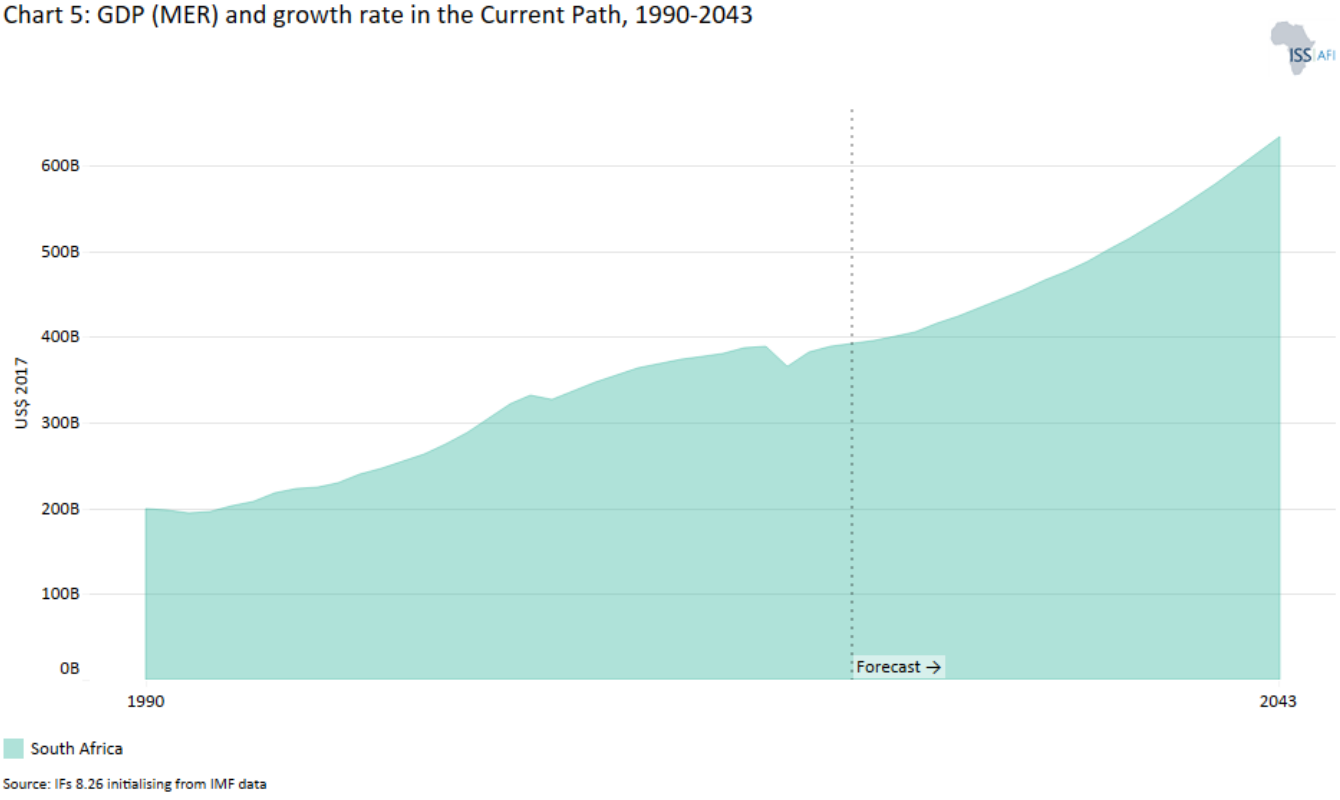
Apartheid-era policies still have a bearing on today's urban and rural spaces. The former Group Areas Act, which relegated black communities to peripheral townships, created a fragmented urban landscape characterised by long distances between former black, coloured and Indian residential areas and places of work, high transportation costs and inadequate infrastructure. Similarly, rural areas, including former homelands, were systematically marginalised, leaving a legacy of deep-seated economic and social challenges such as unemployment, inadequate infrastructure and high levels of poverty.

Several policies have been implemented over the past three decades to address these disparities with mixed results. The Reconstruction and Development Programme (RDP), launched in 1994, aimed to improve housing and infrastructure in

disadvantaged areas, while the Integrated Development Plans (IDPs), introduced in 2000, sought to promote coordinated and sustainable urban development with some success. Strategic Development Plans (SDPs) and the National Spatial Development Framework (NSDF), introduced in 2018, guide urban growth, emphasising spatial justice, economic efficiency and environmental sustainability. In rural areas, the Comprehensive Rural Development Programme (CRDP), initiated in 2009, aims to improve living standards through infrastructure development, agricultural support and sustainable livelihoods, while the Integrated Sustainable Rural Development Strategy (ISRDS), introduced in 2000, coordinates government efforts to enhance service delivery and infrastructure. The Spatial Planning and Land Use Management Act (SPLUMA), enacted in 2013, provides a uniform framework for spatial planning and land use management across the country.

Despite the plethora of initiatives, significant challenges must be addressed to achieve cohesive and inclusive development in urban and rural areas.

Chart 5: GDP (MER) and growth rate in the Current Path, 1990-2043



Source: IFs 8.26 initialising from IMF data

Chart 5 presents GDP in market exchange rates (MER) and growth rate in the Current Path from 1990 to 2043.

South Africa is caught in a classic middle-income growth trap and, since 2007/8, is growing more slowly than most upper-middle-income countries (UMICs) globally. The trap is the result of the skewed, two-legged structure of its economy, which has a small but skilled and highly productive private sector, a relatively small informal sector, and a large, poorly skilled and unproductive, economically inactive sector, with a substantive public sector somewhere in between these extremes. South Africa's challenges are rooted in apartheid but have been worsened by the global financial crisis of 2007/08, the impact of poor (and bad) governance, widespread corruption to the extent that it bordered on the capture of the state by criminal elements, lack of electricity availability and recently the impacts of the COVID-19 pandemic. The pandemic was followed by two years of higher growth but lagged afterwards.

Addressing the nation on 21 April 2020, President Cyril Ramaphosa sought to turn the COVID-19 crisis into an opportunity, promising 'not merely to return our economy to where it was before the coronavirus, but to forge a new economy in a new

global reality.' That, he argued, required a new social compact to accelerate the structural reforms needed to reduce the cost of doing business, promote localisation and industrialisation, overhaul state-owned enterprises and strengthen the informal sector. However, little has come of these promises, and the modest post-COVID recovery did not extend to the job market or to the broader economy that suffered from widespread electricity shortages to 2024, constraining growth. The official unemployment rate increases yearly, and average incomes have not recovered to their pre-COVID-19 levels.

To understand why the country is growing so slowly and forecast how it will likely develop in the next 20 years, our analysis considers the standard sources of economic growth: the contribution of labour, capital and multifactor productivity (known as MFP or technology). Labour productivity in South Africa has declined for several years and is below the average for other UMICs. In addition, low capital per worker is a significant drag on growth. MFP is also lower than in comparable countries, and we discuss the drag that low human capital has on growth elsewhere below.

In the Current Path, South Africa's growth rate steadily improves to 3.1% per annum in 2043 but the average rate from 2024 to 2043 is a modest 2.4%, which is below the average for African UMICs (at 2.7%) and significantly below UMICs globally which is at 3.6%. Yet, even at this modest rate, the size of South Africa's economy (at MER) will grow by 62%, from US$392.1 billion in 2023 to US$634.1 billion in 2043.

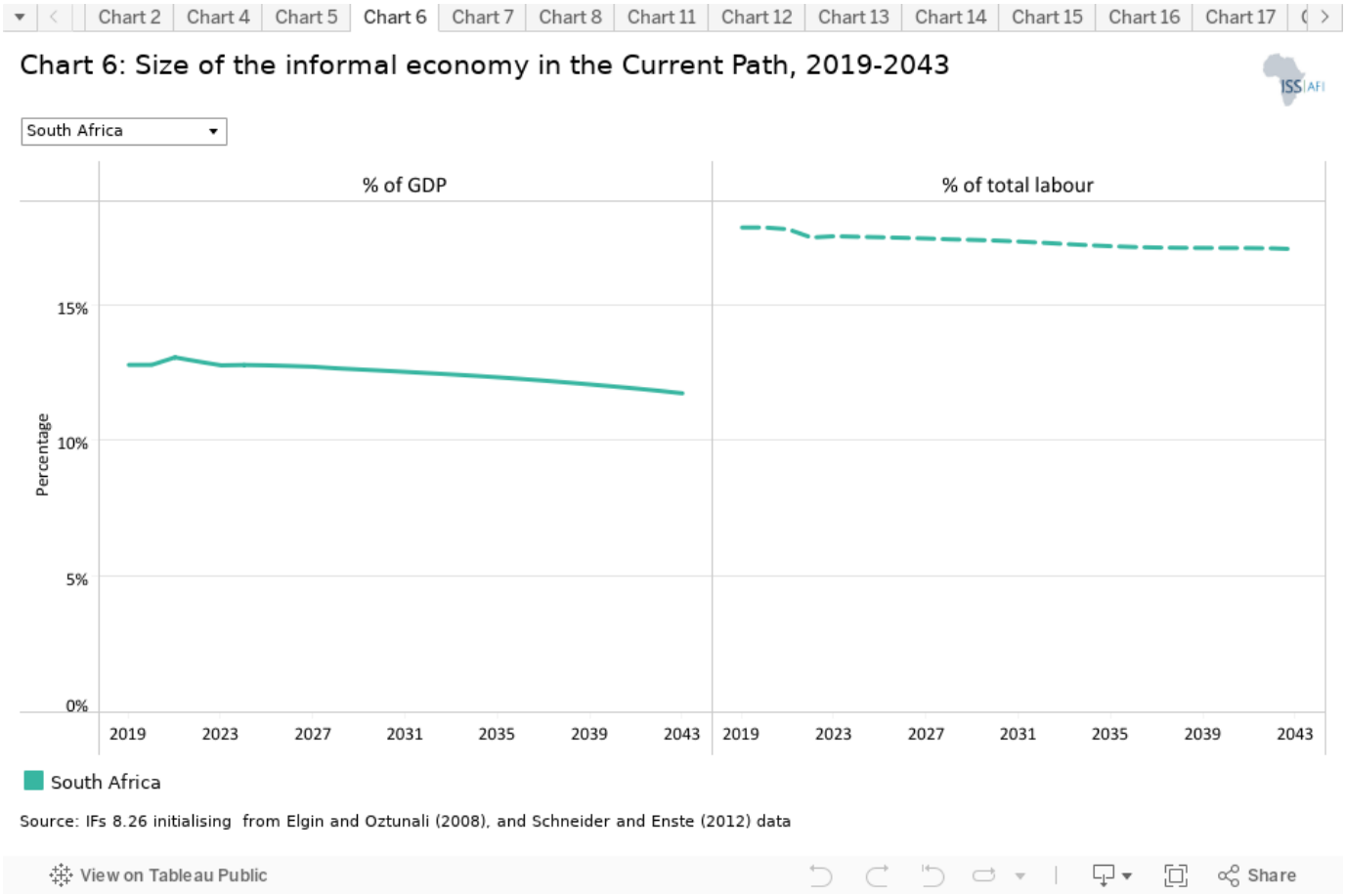


Chart 6 presents the size of the informal economy as per cent of GDP and per cent of total labour (non-agriculture), from 2019 to 2043.

Although data on South Africa's informal sector differs between sources[1], it is apparent that the country has a small informal sector (at 13% of GDP) compared to Namibia (17%) and Botswana (19%), two upper-middle-income countries (UMICs) that share similarly high levels of inequality. The South African informal economy is also smaller than the global average for UMIC countries.

Only around 18% of South Africa's labour force was employed in the informal sector in 2023, around five percentage points below the average for UMICs in Africa and three percentage points below UMICs globally.

South Africa's informal sector will decline slightly to below 12% in 2043 as a portion of GDP, although increasing in absolute size from US$50 billion to US$74.4 billion. The relatively small size of its informal economy and the limited number of informal workers contribute to inequality, extreme poverty and high levels of unemployment.

South Africa's rates of entrepreneurship and self-employment are alarmingly low. A significant portion of the country's working-age population is not economically active, highlighting the urgent need for more entrepreneurial opportunities and a shift in the labour market dynamics.

South Africa's rigid labour market exacerbates its structural unemployment, in addition to measures such as constraints on skilled inward employment and an absence of large-scale programmes that provide low-skilled entrepreneurs with business skills. Instead, the government has rolled out an extensive social grants programme and sought to grow employment in the public sector. The extent of South Africa's unemployment challenge is alarming. In 2023 the International Labour Organisation (ILO) would find that it had the highest unemployment rate globally, after only Eswatini, in part reflecting South Africa's small informal sector since it includes informal work in the sector as part of its definition of employment. According to Statistics SA, in mid-2024, 12.4 million South Africans did not work and the unemployment rate was 42.6%. Around 740 000 South Africans enter the labour market each year and given slow growth and a capital intensive economy, the number of unemployed people increase annually.

Chart 7: GDP per capita in Current Path, 1990-2043 compared to global income group

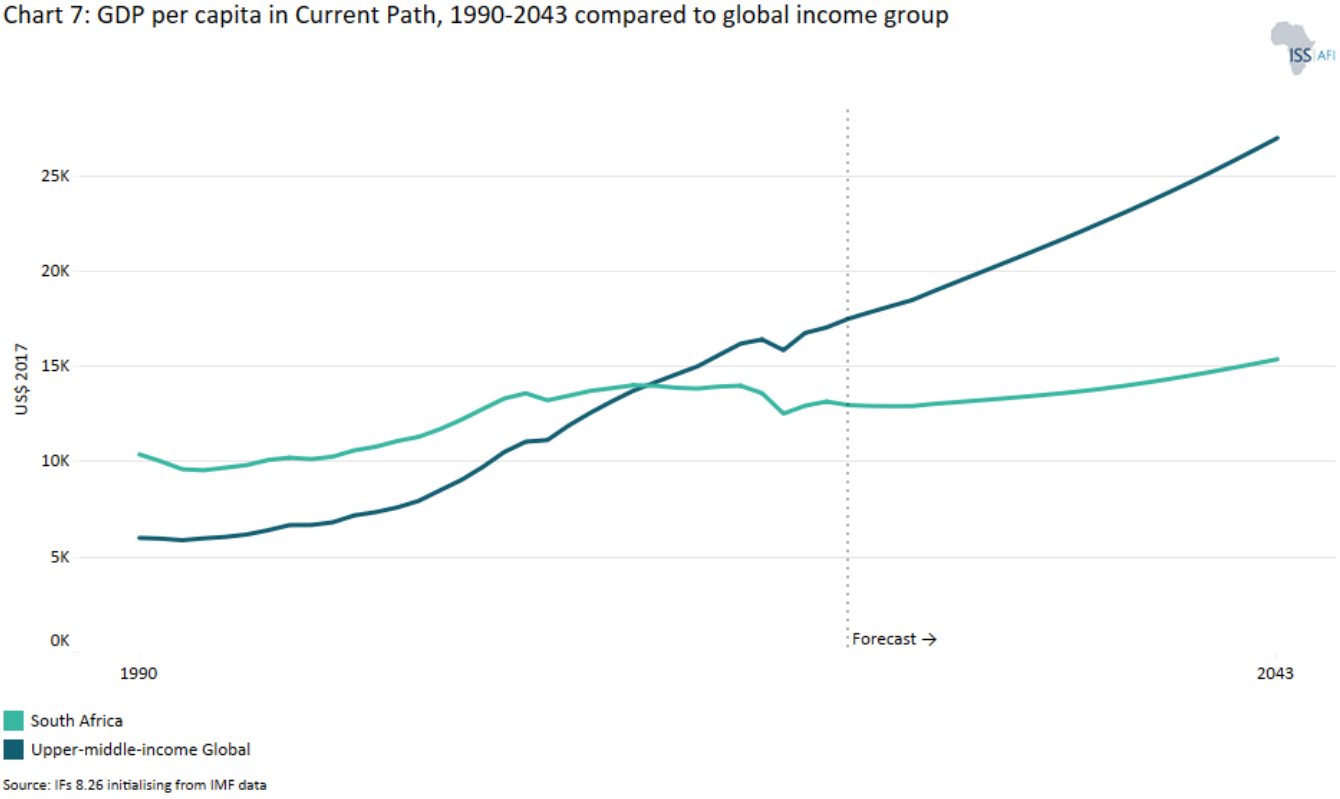


Chart 7 presents GDP per capita in the Current Path, from 1990 to 2043, compared with the average for the global upper-middle-income group.

South Africa's GDP per capita peaked in 1981 and declined after that as apartheid and global isolation took their toll. The

economy started to recover after the historic political transition in 1994, and from 1999 to 2008, the GDP per capita grew rapidly. Growth slowed after the 2007/08 global financial crisis and plateaued during the Zuma administration.

In 1990, with the end of apartheid, South Africa's GDP per capita was US$4 180 above the average for upper-middle-income (UMICs) countries globally. By 2023, it was US$4 900 below. In the Current Path, it will further drop by 2043 to around US$12 000 below the UMIC average. Compared to the average for UMICs, South Africa has been stagnating. Years of steady deindustrialisation, weak investment, a growing social-grant-dependent population and lack of adequate investment in critical areas such as education have undermined South Africa's growth, particularly during the ruinous administration of former President Jacob Zuma from 2009 to early 2018.

This starkly contrasts with countries like South Korea and Taiwan, which historically had lower GDP per capita figures than South Africa but have since surpassed the country's per capita income.

South Africa's historical inequalities, high unemployment rates, and social disparities have been exacerbated by the country's low savings rate since it limits the financial resilience of individuals and reduces the availability of domestic capital for investment. These factors contribute to sustained poverty, as economic opportunities are constrained, and social mobility remains limited.

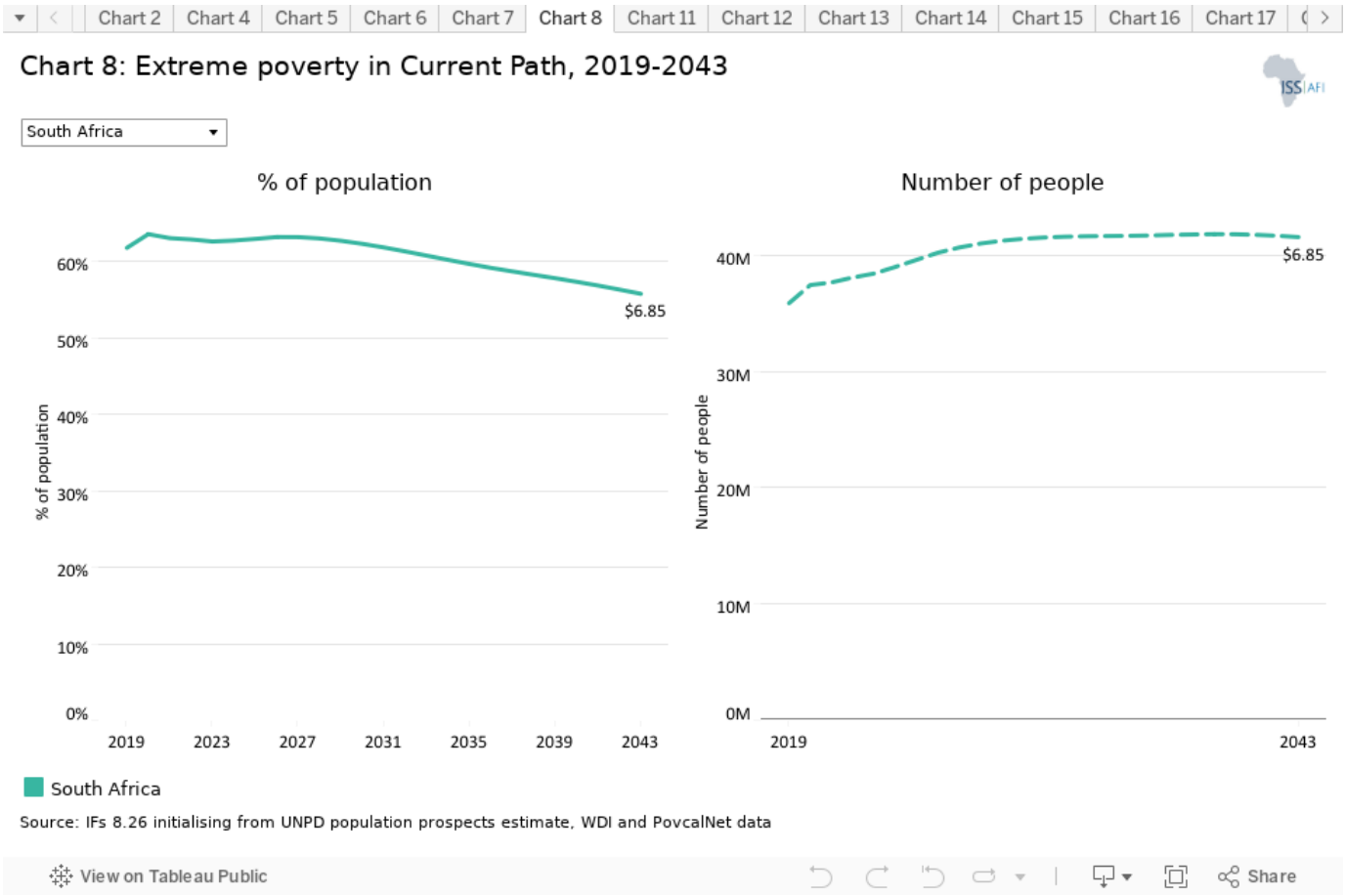


Chart 8 presents the rate and numbers of extremely poor people in the Current Path from 2019 to 2043.

In 2022, the World Bank updated its poverty lines to 2017 constant dollar values as follows:

- The previous US$1.90 extreme poverty line is now set at US$2.15 for use in low-income countries.

- US$3.20 for lower-middle-income countries, now US$3.65 in 2017 values.
- US$5.50 for upper-middle-income countries, now US$6.85 in 2017 values.
- US$22.70 for high-income countries. The Bank has not yet announced the new poverty line in 2017 US$ prices for high-income countries.

Among the eight upper-middle-income countries (UMICs) in Africa, only Namibia has higher rates of extreme monetary poverty than South Africa.

Monetary poverty only tells part of the story, however. In addition, the global Multidimensional Poverty Index (MPI) measures each person's overlapping deprivations across ten indicators in three equally weighted dimensions: health, education and standard of living. The MPI complements the international US$2.15 a day extreme poverty rate by identifying who is multidimensionally poor and also shows the composition of multidimensional poverty. The UNDP estimates MPI for South Africa at 39.8% in 2021, significantly lower than the incidence of US$6.85 monetary poverty at 63% in that year. It implies that individuals living below the monetary poverty line may have access to non-income resources.

Using the extreme poverty line of US$2.15 per day, 21.4% or 13.1 million South Africans lived in extreme poverty in 2023, declining slightly to 17% or 12.5 million people in 2043. At the US$6.85 income level, the portion of people living in poverty in South Africa was an extraordinary 62.6% (equivalent to 38.4 million) in 2023, declining to 55.7% (41.6 million) in 2043. These numbers are more than double the average for UMICs globally.

On its current development trajectory South Africa will struggle to reduce extreme poverty because of its extraordinarily high levels of inequality and unemployment, its relatively modest economic growth forecasts and its relatively small informal sector. The 'informal sector' refers to economic activities not regulated by the government and often operates outside the formal economy. Since its first democratic elections in 1994, economic growth has consistently been too low to create jobs for the flood of annual new entrants to South Africa's labour market and those previously unemployed. Thus, poverty in South Africa is widespread, and inequality is amongst the highest in the world. According to the 2022 World Inequality Report, the top 10% of earners held between 50% and 65% of the country's wealth. In contrast, the bottom 50% of the population has never captured more than 5% to 10% of South Africa's national income.

Social grants from the government already support around a third (26 million) of South Africans. They play an important role in constraining poverty increases and have helped constrain inequality growth.

Chart 9: National Development Plan of South Africa

Chart 9 depicts the National Development Plan.

Ahead of South Africa's first democratic elections in 1994, the African National Congress (ANC) and its allies released the Reconstruction and Development Plan (RDP), followed shortly thereafter by the 1996 Growth, Employment, and Redistribution (GEAR) plan. In 2006, GEAR was replaced with the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) to reduce poverty and unemployment more rapidly. GEAR and AsGISA departed markedly from the RDP, shifting government policies decidedly into a pro-market direction, and would provide fertile ground for an internal campaign within the ANC and its alliance partners that would lead to President Thabo Mbeki's resignation as president in 2008 and after a brief presidency by Kgalema Motlanthe, Jacob Zuma became president after the 2009 elections. Zuma resigned in February 2018, shortly after Cyril Ramaphosa was elected as president of the ANC.

Following the global financial crisis, the Zuma government formulated and released three successive economic strategies: the New Growth Path (NGP), the Department of Trade and Industry's Industrial Policy Action Plan, and, in 2012, the National Development Plan (NDP). President Zuma also announced a Nine-Point Plan at the 2015 State of the Nation speech.

Twenty-five part-time commissioners to the National Planning Commission worked on the NDP to eliminate poverty and reduce inequality by 2030. It remains the official long-term development plan, although the ten-year review of the NDP, released in September 2023, found that its vision of a future South Africa has yet to materialise. ‘At the heart of our current developmental impasse has been a failure to keep the NDP in focus and at the centre of our developmental trajectory as a country. Instead of keeping the long-term plan in view and using it to inform planning and implementation

across government, the NDP was paid little more than lip service, reinforcing incoherent planning and poor implementation.'

In President Ramaphosa's 2019 Budget Speech, he identified the pattern of operating in silos that has led to a lack of coherence in planning and implementation and made monitoring and oversight of the government's programme difficult. To respond to these challenges, he announced the District Development Model, consisting of a process by which joint and collaborative planning was to be undertaken at local, district and metropolitan levels to enable the three spheres of government to work together, with communities and stakeholders, to plan, budget and implement in unison.

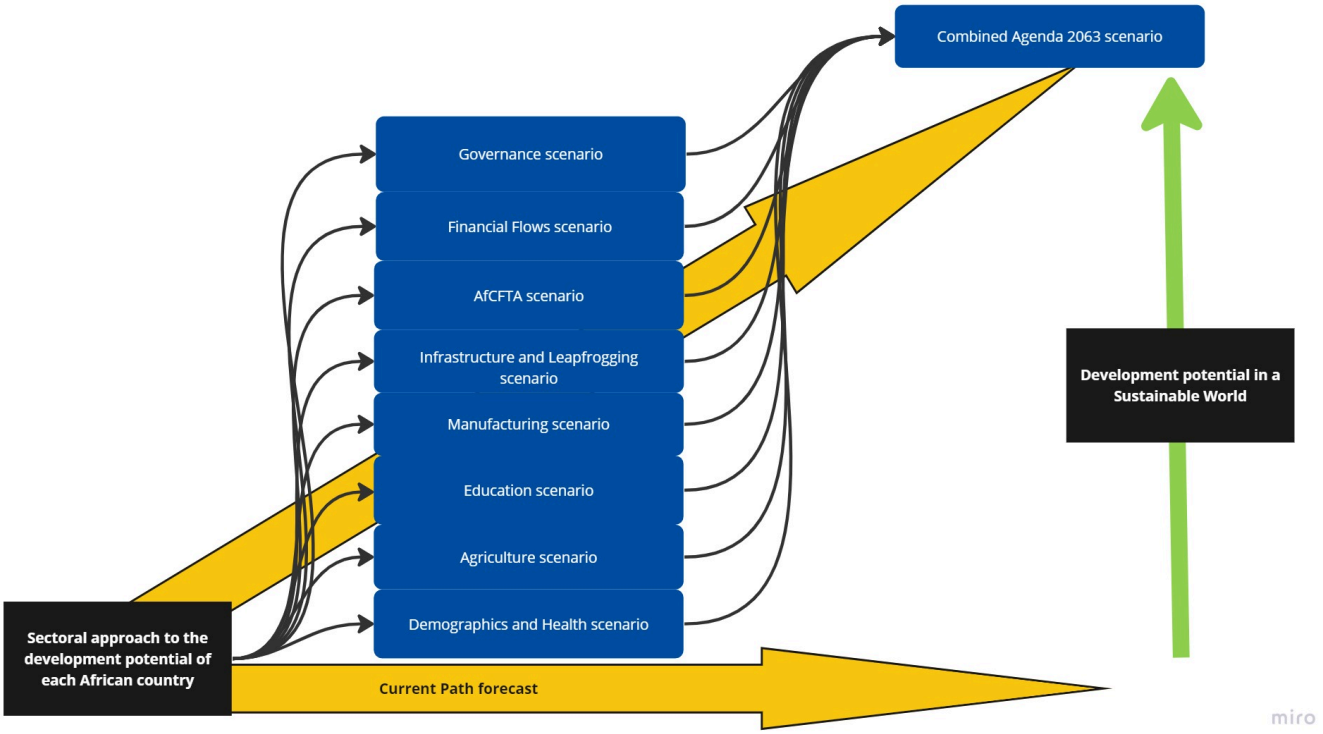
Frustration about slow progress was also evident when the National Treasury released its 2019 paper Economic Transformation, Inclusive Growth, and Competitiveness: Towards an Economic Strategy for South Africa that identified six structural reform areas, the estimated impact of which would be to increase GDP by 2–3 percentage points over ten years. These include improving industrial and trade policy implementation, export competitiveness and 'harnessing regional growth opportunities.' The South Africa Economic Recovery and Reconstruction Plan (EERP), released in 2020, emphasised new investments, new industries and new tradable products as the country transitioned to low-carbon energy and includes 're-orienting trade policies and pursuing greater regional integration to boost exports, employment and innovation' as one of its critical structural reforms. It was followed, in October 2020, with the announcement of Operation Vulindlela as a joint initiative with National Treasury with its focus on energy, logistics, water, and telecommuications, as well as reforms to the visa system.

During the national elections in May 2024, support for the ANC, which had governed South Africa since 1994 with an absolute majority, plummeted. In July 2024, it and several other parties agreed to form a coalition government (calling it a Government of National Unity (GNU)) to share power and achieve common goals. Announcing the agreement, President Ramaphosa resolved to 'dedicate the next five years to actions that will advance three strategic priorities: Firstly, to drive inclusive growth and job creation. Secondly, to reduce poverty and tackle the high cost of living. Thirdly, to build a capable, ethical and developmental state.

South Africa: Scenarios

About

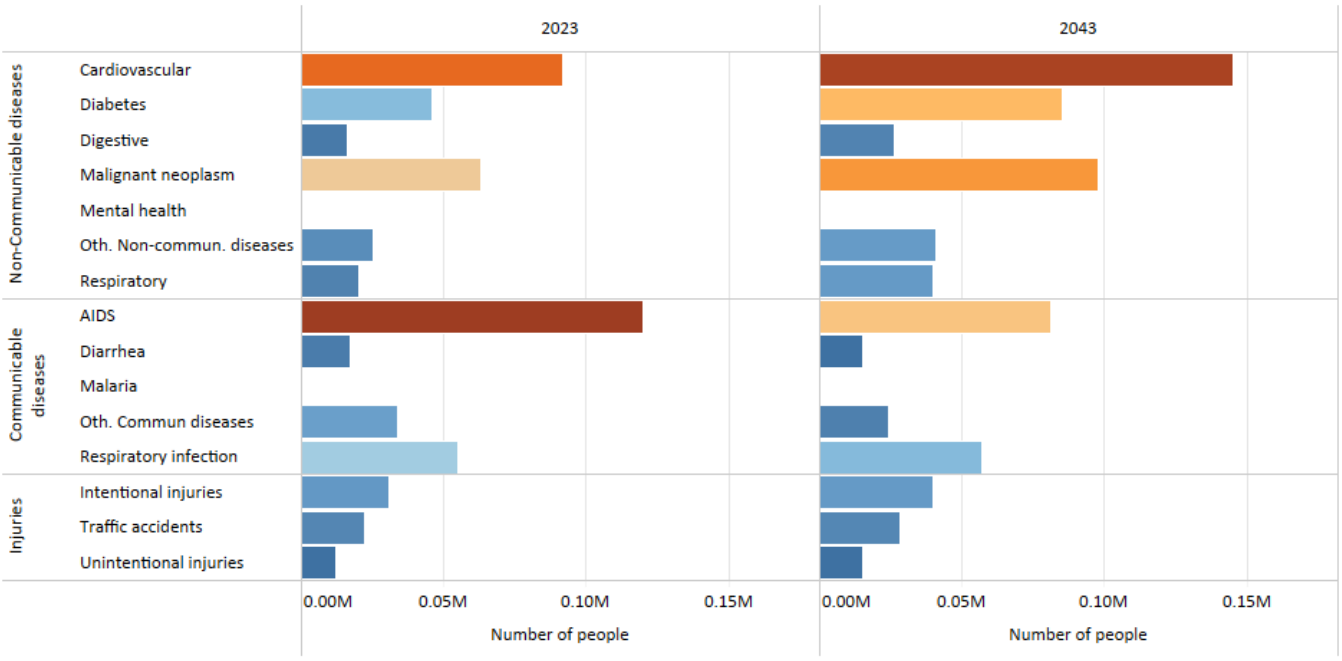
Chart 10: Relationship between Current Path and scenarios



The About page explains the eight sectoral scenarios and their relationship to the Current Path and the Combined scenario. Chart 10 summarises the approach.

Demographics and Health scenario

Chart 11: Mortality distribution in the Current Path, 2023-2043



Source: IFs 8.26 initialising from IHME data

Chart 11 presents the mortality distribution in the Current Path for 2023 and 2043.

The Demographics and Health scenario for South Africa includes interventions to reduce the infection rate for HIV, reduce AIDS death rates as % of HIV infection rate, reduce the incidence of cardiovascular disease as well as for diarrhoea, diabetes, malignant neoplasm, respiratory infections, child mortality from infectious disease, maternal mortality rates, and increases the provision of improved sanitation and safe water. It also reduces malnutrition, obesity, smoking by men, the stunting rate for children under five and injuries from vehicle accidents.

The high levels of severe and acute malnutrition combined with high levels of inequality, poor health and high disease burden constitute a long-term driver of low human productivity. As a result, South Africa's poor human capital endowment is the most significant drag on multifactor productivity, followed by social capital. In summary, the drag that human capital has on productivity in South Africa reflects low levels of government efficiency since the country's expenditure on health (8.3% of GDP) is above the average for upper-middle-income countries (UMICs) globally, including those in Africa. Its spending on education, also a large contributor to human capital, is at 6.6% of GDP and similarly above the global average for UMICs (4.7%) but below the average for Africa's UMICs (5.3% of GDP, including South Africa).

Compared to non-African UMICs, Africa's eight UMICs have much younger populations and some, South Africa, Namibia and Botswana, have been severely affected by HIV/AIDS. South Africa, for example, had a 2023 median age of 28.8 years compared to a global average for UMICs at 36.1 years and has the largest HIV epidemic globally. Communicable diseases typically dominate in younger populations, and, as a result, South Africa (and other UMICs in Africa) underwent their epidemiological transition, when deaths from non-communicable diseases exceed those from infectious diseases, shortly before 1990, much later compared to other countries at similar levels of development. The transition was reversed shortly after that as a result of HIV/AIDS and its significant spike in deaths from infectious diseases until 2019, when effective

treatment saw AIDS deaths decline to the extent that the country again went through its epidemiological transition. This unique pattern is also visible in neighbouring Botswana and Namibia. Had it not been for that, South Africa's mortality rates would have followed international trends, meaning deaths from non-communicable diseases would rapidly outpace those from infectious diseases as the population ages and the disease burden shifts.

The effect of HIV/AIDS in South Africa is still significant several years after the disease peaked. Average life expectancy, for example, at over 64 years in 1990, plummeted to 52 years by 2005, and by 2023, had only modestly recovered to 66 years, while the average life expectancy for UMICs globally has increased from 68.6 years to 77.1 years in that time. Resistance from President Thabo Mbeki during his presidency between 1999 and 2006 would delay the effective roll-out of antiretroviral treatment for several years. Eventually, during his second term, popular pressure would see antiretroviral therapy scale up, and its subsequent free rollout would cause substantial health improvement.

Discoveries of cheap, long-lasting drugs to avoid infection and the available treatments for prevention and treatment provide a positive future. The most exciting is a twice-yearly injection with a potentially affordable drug, lenacapavir that fully protects against HIV infection. For that reason, the interventions for reductions in HIV infections and AIDS mortality in the Demographics and Health scenario are aggressive, with 39 000 fewer South Africans dying as a result of AIDS in 2030 than in the Current Path, and 51 000 less in 2043.

Still, similar to many other UMICs, South Africa faces a double burden of disease with a steady rise in more expensive non-communicable diseases in the presence of significant, long-standing infectious disease prevalence.

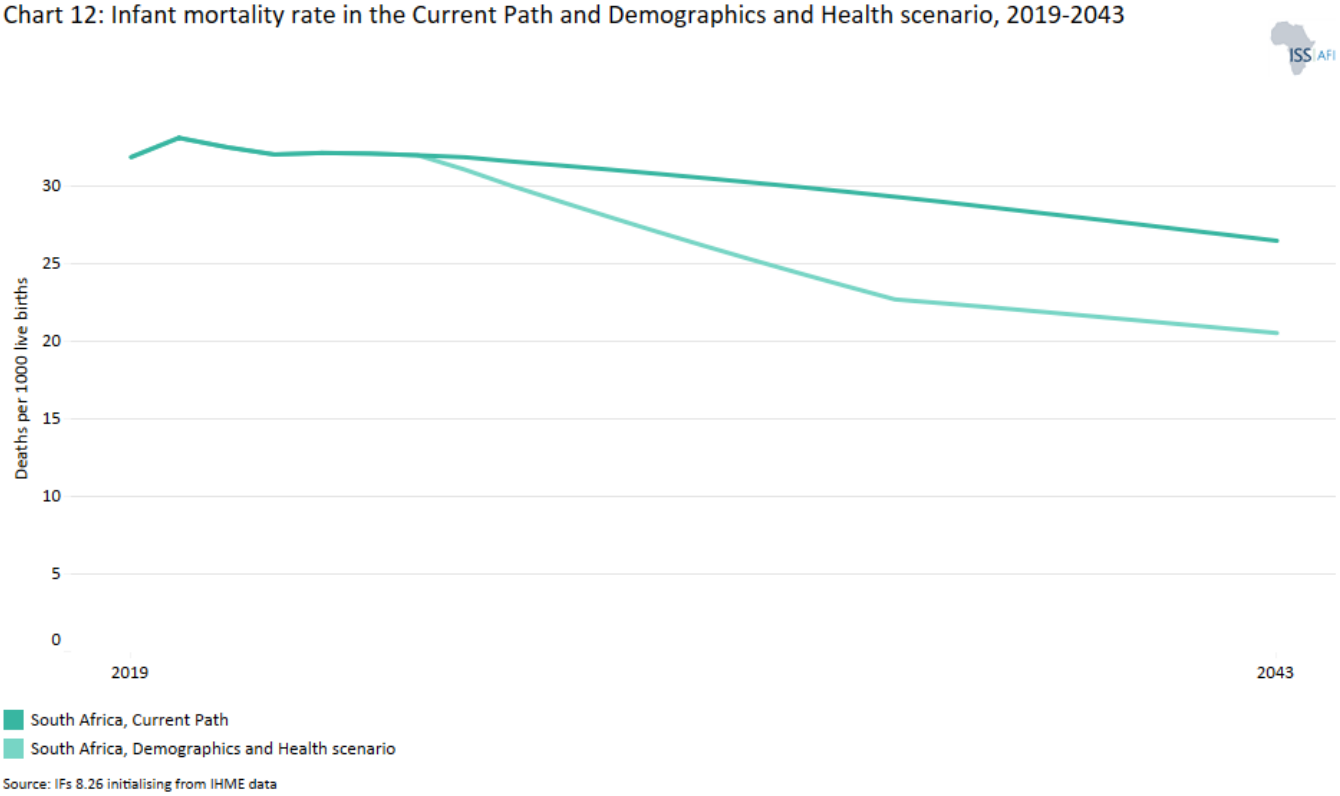
For many years, the government has sought to address the many challenges that are faced in the health sector by, for example, committing to the Sustainable Development Goals (2015) and Universal Health Care (UHC) (2019), setting three main objectives for the health system (and the reform process): (i) to ensure equity in access to health services irrespective of ability to pay; (ii) the quality of health services should be good enough to improve the health of those receiving services; and that (iii) the cost of using healthcare services should not put people at risk of financial harm. The momentum has, however, stalled in recent years with a singular focus on developing a single health system financing model, the National Health Insurance (NHI).

Because of poverty and other factors, many South Africans generally do not pursue a healthy lifestyle. Despite being a food-producing nation, a significant portion of South Africa's population struggles with malnutrition in various forms, including undernutrition (resulting in stunting and wasting) and overnutrition (resulting in obesity). Males also smoke in larger portions than in other comparable countries. Sixty-eight per cent of women of reproductive age are overweight or obese, and 31% of men. Obesity is linked to non-communicable diseases, such as diabetes mellitus, coronary heart disease and hypertension, which are among the top 10 causes of death in South Africa. The problem is particularly severe among mothers and children. Thus, 27% of children under five are stunted, and 61% of children are iron-deficient. Undernutrition increases the risk of infectious diseases. The 2018-2023 National Food and Nutrition Security Plan was developed to respond to the high malnutrition rates comprehensively, but with disappointing results.

The Demographics and Health scenario models the impact of a comprehensive approach that emulates the impact of reforms that provide for competent management, administration and clinical oversight and governance; establishment of a national health information system; and steps to improve decision-making across private and public sector.

In 2023, infectious disease death rates per thousand people were 3.7, non-communicable death rates 4.3 and injuries 1.1. On the Current Path, the 2043 rates will be 2.4 from infectious disease deaths, 5.9 from non-communicable diseases and above 1.1 from injuries. In the Demographics and Health scenario, the rates will be 1.3 and 5.6 (lower by 47% and 9% respectively). Deaths from injuries also decline, though modestly so.

Chart 12: Infant mortality rate in the Current Path and Demographics and Health scenario, 2019-2043



Source: IFs 8.26 initialising from IHME data

Chart 12 presents the infant mortality rate in the Current Path and the Demographics and Health scenario, from 2019 to 2043.

The infant mortality rate is the probability of a child born in a specific year dying before reaching the age of one. It measures the child-born survival rate and reflects the social, economic and environmental conditions in which children live, including their health care. It is calculated as the number of infant deaths per 1 000 live births and is an essential marker of the overall quality of the health system in a country.

In 2023, infant deaths per 1 000 live births in South Africa were almost three times above the average of UMICs globally (32.2 vs 11.6), primarily due to HIV infections and a high burden of influenza-associated mortality rates. Between 7 000 and 12 000 seasonal influenza-related deaths are estimated to occur annually in South Africa, of which half are in the elderly and about 30% in HIV-infected people. And, while the average for upper-middle-income countries (UMICs) globally can expect a near halving of infant mortality rates by 2043 (to 7.4), the Current Path for South Africa in 2043 is still an extraordinarily high 26.5 deaths per 1 000 live births. At that point, infant mortality rates in South Africa will even be above the rates for low- and lower-middle-income countries (LMICs) globally, mainly due to the lingering impact of HIV/AIDS. In the Demographics and Health scenario, which includes aggressive interventions on reducing HIV/AIDS, South Africa's rates will decline to 20.3 in 2043, a reduction of 31% on the Current Path.

South African expenditure on health has been constant at roughly 8% of GDP since 2012, slightly higher during the 2019-2020 COVID-19 pandemic. Compared with other UMICs, South African expenditure on its health sector as a portion of government expenditure is high, but more is needed given the burden of disease discussed previously. However, the country has a large and well-funded private healthcare system that serves around 27% of the population paid through individual contributions to health insurance or medical insurance plans. The private healthcare system is sophisticated but characterised by over-servicing and inflated costs, while the public healthcare system, responsible for 71% of the population, has steadily deteriorated over time. Evidence of the failures to address or strengthen stewardship, governance, leadership and management in this sector is now overwhelming, with corruption and irregular expenditure

endemic at all levels. According to senior medical experts writing in the South African Medical Journal in 2024, many parts of the health system are no longer able to deliver their assigned services, or an acceptable quality of care. As a result, the gap between the private and public healthcare systems is significant. For example, the amount spent on health care for each person with a medical aid scheme in South Africa is five times the amount spent on each person who relies entirely on public health facilities. The distribution of health professionals between the private and public sectors and urban and rural areas is also large.

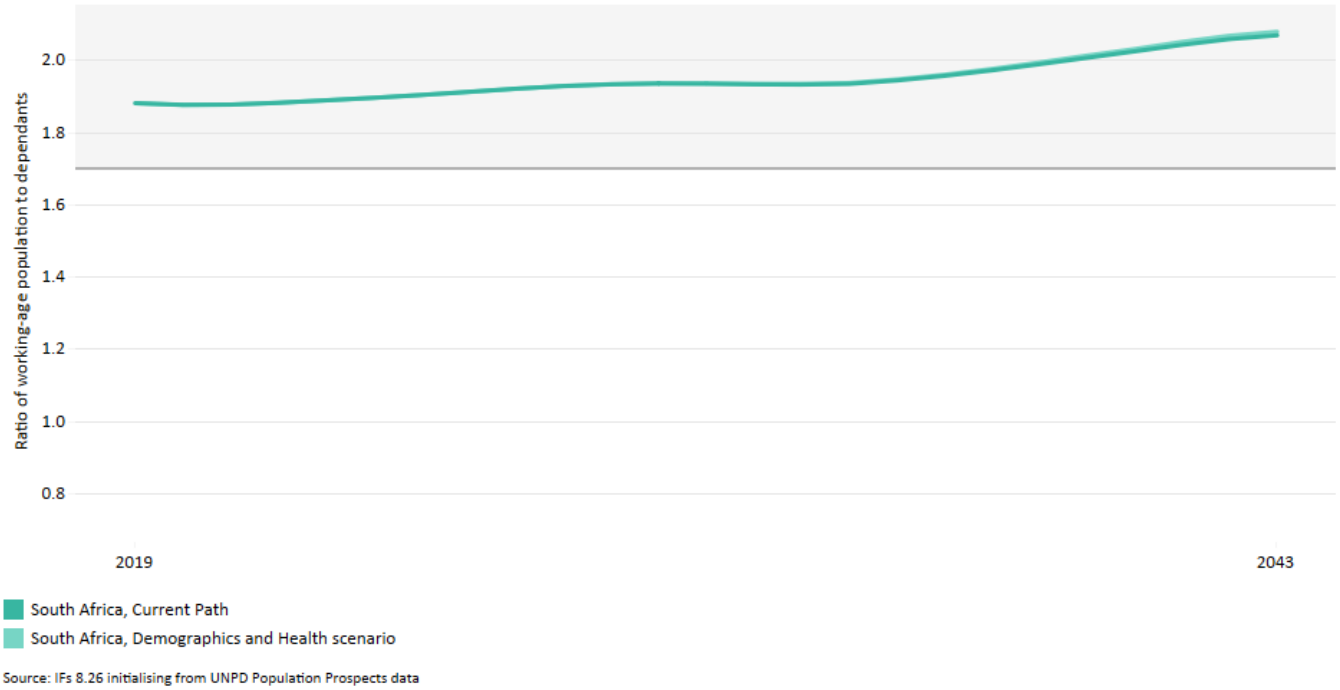
In response, the government published a National Health Insurance (NHI) Green Paper, followed by NHI pilot projects in 2012. The NHI white paper in 2015 proposed the achievement of universal health coverage. The NHI is a centralised, national insurance fund from which the government will buy healthcare services from healthcare providers in both the public and private sectors. In May 2024, President Ramaphosa signed the NHI Bill, to be phased in by 2028. There is broad support for the plan, but concerns remain about various aspects, including the funding model, the extent of corruption and maladministration in the Department of Health and the implications for the private healthcare system.

In 2024, shortly after the elections that saw the formation of a Government of National Unity, a seven-member multidisciplinary panel of experts appointed by the Academy of Science of South Africa published its report that reflected on the widespread problems in the country's public healthcare system, including a large number of managers in acting positions, frequent changes in senior leadership, worse health outcomes than similarly resourced countries, and overall deterioration of morale and trust. The panel recommended eight steps to address key governance issues:

1. Define and communicate a clear public value mission and mandate for each level of the health service and each governance actor.
2. Update legislation and governance structures to insulate them from vested interests and give them executive rather than merely advisory functions.
3. Delegate authority appropriately to each level and within levels of the health system.
4. Get the right people – ethical people with the appropriate competencies – into leadership and management positions within the health system.
5. Surround managers and leaders with functional, fit-for-purpose systems so that they can do their work.
6. Support managers at every level with the resources, understanding and ability to build teams and attend to the relationships that make complex systems work.
7. Harness the authentic potential of community participation to ensure appropriate, respectful and responsive health services and monitor health service outcomes and processes.
8. Act on dereliction of duty and acts of corruption and protect whistle-blowers.

The extent to which South Africa can feed, educate and create employment opportunities for its large working-age population will partly be determined by its ability to improve its health.

Chart 13: Demographic dividend in the Current Path and the Demographics and Health scenario, 2019-2043



Source: IFs 8.26 initialising from UNPD Population Prospects data

Chart 13 presents the demographic dividend in the Current Path and the Demographics and Health scenario from 2019 to 2043.

The demographic dividend is the window of economic growth opportunity when the ratio of working-age persons to dependents increases from 1.7 to 1 and higher.

South Africa entered a potential demographic window of opportunity around 2003 when the ratio of working-age persons (15 to 64 years of age) to dependants exceeded the ratio of 1.7 working-age persons to every dependant. Still, it has been unable to translate that dividend into more rapid economic growth and higher incomes. By 2023, the ratio had improved to 1.9 to 1, but the country had experienced a steady decline in GDP per capita for several years, given the impact of COVID-19, state capture, poor governance, poor health and an underperforming education system. Only six other African countries are in this potentially fortunate position: the island states of Mauritius, Seychelles and Cape Verde, and three countries in North Africa (Morocco, Tunisia and Libya). Labour productivity in South Africa has been on a slow decline for over a decade, but with prospects for improvements with the end of the COVID-19 crisis and expectations of improved government effectiveness and economic growth with the establishment of the GNU in 2024. South Africa's demographic dividend is set to increase and will peak at 2.1 to 1 in 2043 before starting to decline. As health and education indices improve, they will reduce the large drag that human capital currently exerts on economic growth.

While the contribution of labour to growth improves due to a healthier population, it also results in a larger elderly population (life expectancy in 2043 will be 73.7 years in the Demographics and Health scenario instead of 70.4 in the Current Path, with female life expectancy 6.1 years above that of men).

In the Demographics and Health scenario, South Africa's population increases by 1.1 million above the 2043 Current Path to 74.6 million people. A larger working-age population means that South Africa's GDP will be US$21.5 billion larger in 2043 than the Current Path. GDP per capita will be US$188 higher.

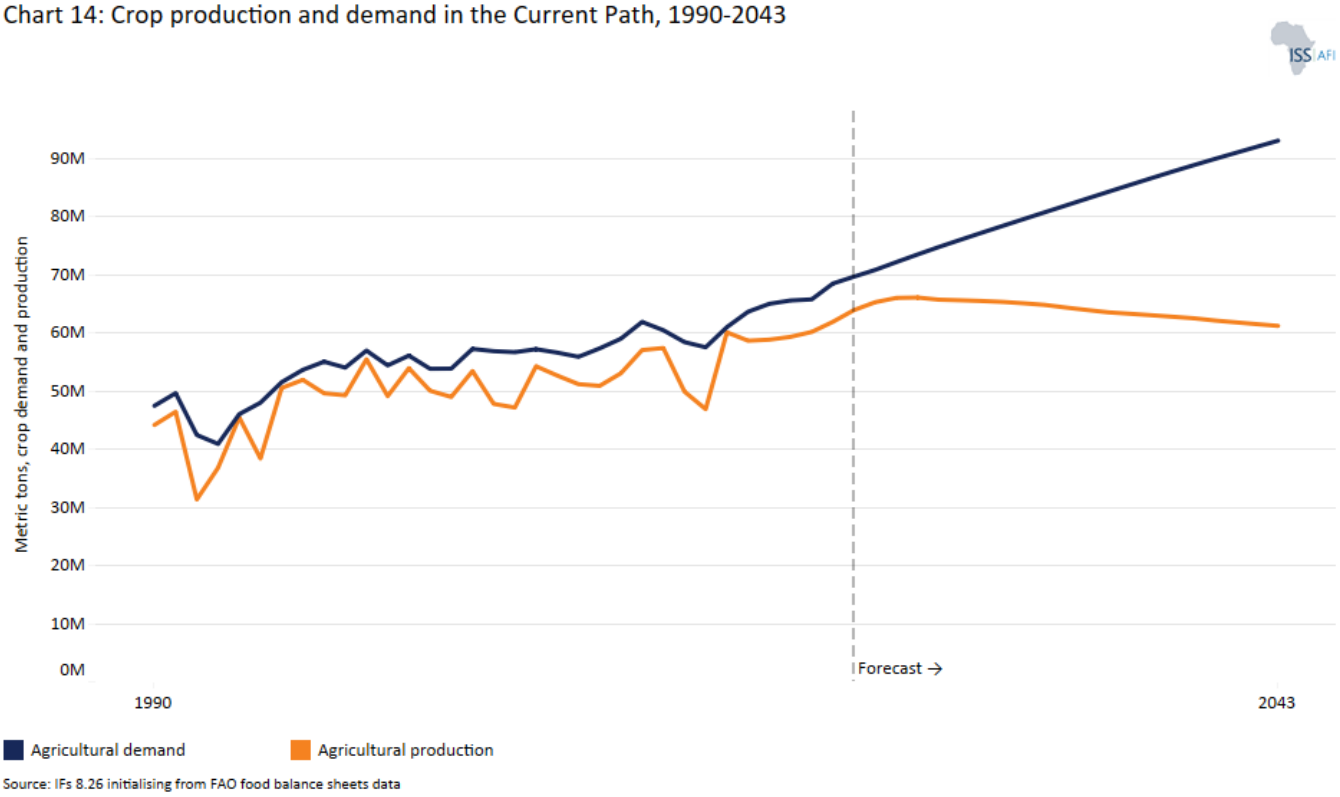
Outside Africa, most upper-middle-income countries (UMICs) have passed their peak dividend and are already experiencing a decline in the ratio of working-age persons to dependants. However, South Africa's working-age population is set to increase from 65% of its total population in 2023 to 68% by 2043. With sufficient capital and technology, the larger pool of workers could potentially accelerate rates of economic expansion.

The main reason for South Africa's poor productivity relates to its high disease burden, including HIV/AIDS, cardiovascular, malignant neo plasma, respiratory infections, diabetes and other infectious diseases, on top of high levels of crime and injury, mortality from traffic accidents and unhealthy habits such as smoking and obesity.

As a result of its high disease burden, South Africa's 2023 rates of infant mortality, a good general indicator of the health sector as a whole, are almost 30% higher than the average for UMICs in Africa (32.2 vs 24.8 per thousand live births) and above even those for Botswana and Nambia, both of which also carry a large HIV/AIDS burden and also have very high levels of inequality. In the Demographics and Health scenario South Africa's infant mortality rate declines by a quarter in 2043 when compared to the Current Path but is still above the average for UMICs in Africa.

Agriculture scenario

Chart 14: Crop production and demand in the Current Path, 1990-2043



Source: IFs 8.26 initialising from FAO food balance sheets data

The agricultural production and demand data in our modelling initialises from data provided on food balances by the Food and Agriculture Organization (FAO). This contains data on numerous agriculture types but disaggregates the forecast into crops, meat and fish, presented in million metric tons.

Chart 14 shows crop production and demand in the Current Path from 1990 to 2043.

The sector has been steadily increasing production over the past six decades. However, 2023 proved difficult due to continued load-shedding, animal disease outbreaks and port congestion. Despite these setbacks, the industry has demonstrated significant resilience between 2019 and 2023 compared to other economic sectors. These challenges include the disruptions caused by the COVID-19 pandemic and its associated lockdown regulations, the July 2021 unrest that severely impacted the food supply chain, and Russia's invasion of Ukraine, which led to increased costs of critical agricultural inputs and disrupted trade flows of essential commodities such as fertiliser, wheat, sunflower and rice.

Agriculture in South Africa is a vital sector that plays a crucial role in the economy, food production, employment, and poverty alleviation. It is the backbone of rural development, providing livelihoods for a significant portion of the population. During the budget vote in parliament in July 2024, the newly appointed agricultural minister noted that the sector contributes an average of 2.8% to the national economy (measured in GDP) and roughly 6% to total employment. Together with food production and processing, agriculture contributes up to 7% to GDP.

South Africa is among the few African countries achieving food security at the national level and is a net exporter of agricultural goods. Its varied climate supports one of the most diverse agricultural sectors globally, producing crops such as maise, citrus fruits, wine grapes, sugarcane, apples, and pears. It also boasts a vibrant poultry and livestock industry. South Africa's positive net trade balance has doubled over the past four years, driven primarily by citrus and maise

exports. The country's status as the second-largest global exporter of citrus remains a critical factor in the agro-processing sector's contribution to GDP. According to the BFAP 2024 baseline report, maise and soybean yields have rapidly grown.

The agricultural sector's success is primarily driven by its innovative private sector, which responds to local and international market demands. The industry includes large-scale commercial farms and agribusinesses utilising modern farming techniques and technologies to boost productivity. The commercial sector consists of approximately 32 000 farmers, though a significant portion of agricultural output is produced by a small percentage of these farms.

In contrast, subsistence and smallholder farms—mainly located in areas under traditional authority—face challenges such as smaller plot sizes, inadequate infrastructure and poor access to critical inputs. Many farms acquired through the government's land reform program are underperforming, with more than 50% of agricultural land classified as low to medium potential. Targeted support and infrastructure development are necessary to make these lands productive. Furthermore, two million hectares of state-owned land, initially acquired for land reform, remain unallocated due to bureaucratic inefficiencies. The government also has more than two million hectares of land that has yet to be released to beneficiaries with title deeds or long-term tradeable leases. These farms were initially acquired as part of its land reform program but stalled due to inefficiencies. The 2003 Comprehensive Agricultural Support Programme (CASP) intends to assist emerging farmers by providing resources and infrastructure to improve productivity.

South Africa's agricultural sector also needs help with rainfall variability, including droughts, severe flooding and water scarcity. The 2015/2016 El Niño event, which caused the worst drought since 1904, significantly impacted maise and wheat production. Water scarcity, worsened by inadequate irrigation infrastructure and competing demands from different sectors, limits crop production, especially in regions with limited reliable water sources.

Despite production keeping pace with demand in past decades, South Africa risks becoming a net food importer in the coming years without further investments in infrastructure and agricultural yields. According to the Current Path, demand will outstrip supply beyond 2027, leading to a deterioration in food security. By 2043, crop production will be 60.7 million metric tons, and demand will exceed 83 million metric tons, translating to a 21.3 million metric ton shortfall.

Soil degradation, driven by erosion, nutrient depletion, and poor land management practices, contributes significantly to declining productivity. Moreover, sufficient investments in sustainable farming techniques and soil conservation efforts leave the sector ill-equipped to counter these challenges, leading to yield stagnation in the Current Path.

To counter these challenges, the Agriculture and Agro-Processing Master Plan (AAMP), adopted in 2022, seeks to enhance productivity, inclusivity and sustainability. Key strategies include improving infrastructure, expanding rural market access, and adopting sustainable farming practices. By focusing on increasing yields, expanding production, improving infrastructure, and adopting sustainable practices, the plan aims to drive long-term growth and resilience in the agricultural and agro-processing industries. The Agricultural Policy Action Plan (APAP) complements these by focusing on value-chain development and smallholder support. The Comprehensive Agricultural Support Programme (CASP), initiated in 2003, also provides resources to help emerging farmers involved in land reform. The

According to a BFAP study, irrigated maise yields in certain provinces, such as the Eastern Cape, could reach up to 12.5 metric tons per hectare, a significant increase from current levels of 5.07 metric tons per hectare in commercial farming and 2.36 metric tons in subsistence farming. Other vital crops, such as wheat, soybeans, citrus, and grapes, also have the potential for increased production if infrastructure constraints—such as road access, reliable electricity, and efficient irrigation systems—are addressed.

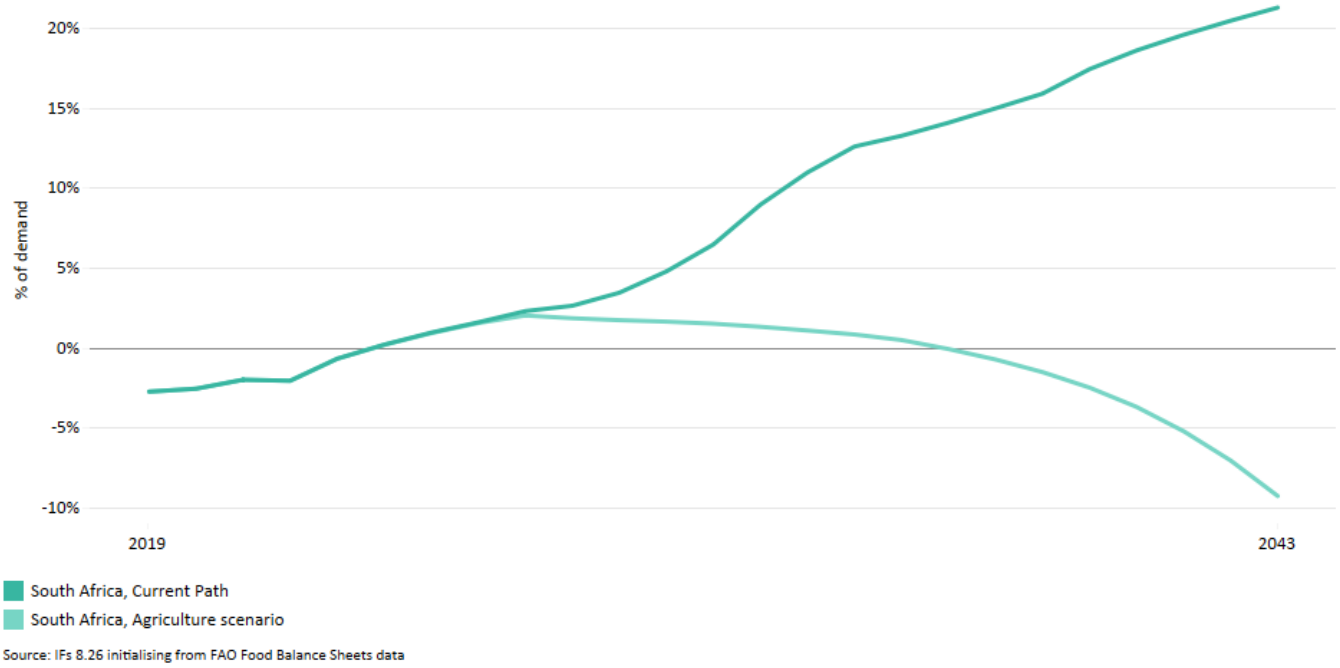
BFAP remains optimistic in its medium-term outlook, noting that investments in improved irrigation systems, water management and new technologies can enable South Africa to maintain its net exporter status. In particular, the

expansion of irrigated agriculture and the use of climate-resilient crops are essential for addressing the challenges posed by climate variability.

The Agriculture scenario, as outlined in the Agriculture theme, mirrors these policies through ambitious yet feasible increases in yields per hectare, additional groundwater withdrawal, an aggressive rollout of irrigation systems, efforts to reduce food loss and waste, and the expansion of rural access roads. South Africa could significantly boost its agricultural productivity by investing in these areas. The country can also increase land under cultivation using available state-owned land and conducting tenure reform in the former homeland areas.

By addressing these challenges and investing in critical areas such as irrigation and soil management, South Africa's agricultural sector could increase average yields to 8.7 metric tons per hectare by 2043, enabling total crop production to rise to 96.1 million metric tons. This would secure South Africa's food supply and allow for increased export earnings, reinforcing the country's role as a critical player in the SADC region's food security.

Chart 15: Import dependence in the Current Path and Agriculture scenario, 2019-2043



Source: IFs 8.26 initialising from FAO Food Balance Sheets data

Chart 15 presents the import dependence in the Current Path and the Agriculture scenario, from 2019 to 2043.

South Africa remains one of the few African countries that are essentially food secure, contributing significantly to the food supply in the SADC region. However, future projections are less optimistic. The Current Path is that South Africa's reliance on agricultural imports will grow to 15% of its domestic demand by 2043, indicating increased vulnerability to global market fluctuations.

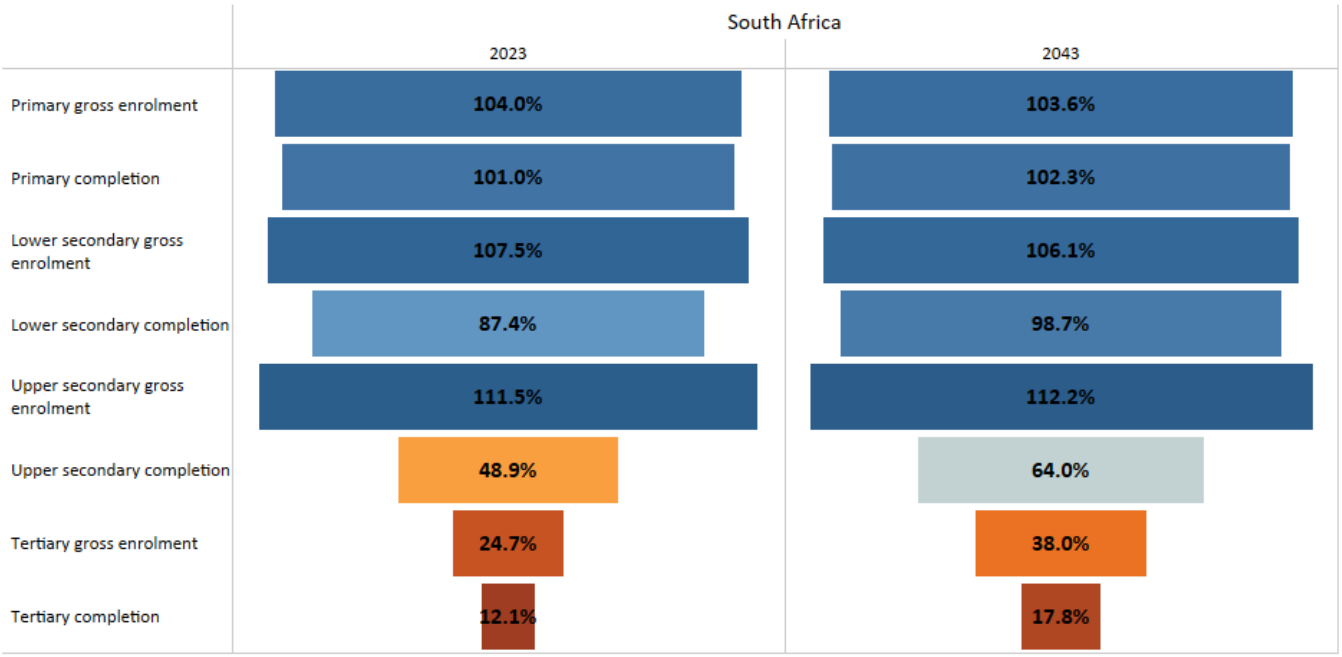
The Agriculture scenario presents a much more hopeful trajectory with South Africa exporting the equivalent of 21% of its demand by 2043. It illustrates that with targeted interventions, South Africa could shift towards producing a net surplus (it currently has a small deficit), thereby enhancing its capacity to support domestic and regional food security. In the

Agriculture scenario, agricultural exports will increase to 28 million metric tons, equivalent to US$6.2 billion, compared to the 3.6 million metric tons (valued at US$1.3 billion) in the Current Path for 2043. Additionally, crop imports will decrease to US$4 billion, compared to US$6 billion in the Current Path.

The proposed interventions would also stabilise the agricultural sector's value-added contribution to GDP which is at 2.4% in 2023 to 2.9% of GDP in 2043, in contrast to the 1.7% on the Current Path. This emphasises the critical importance of strategic investments and policies in agriculture to safeguard food security, bolster economic growth, and reinforce South Africa's role as a critical food supplier in the region.

Education scenario

Chart 16: Progress through education funnel in the Current Path, 2023 and 2043
% of of-age children



Source: IFs 8.26 initialising from Barro-Lee data

Chart 16 depicts the progress through the educational system for primary gross enrolment, primary completion, lower-secondary gross enrolment, lower-secondary completion, upper-secondary enrolment, upper-secondary completion, tertiary enrolment, and tertiary completion in the Current Path (for 2023 and 2043). The numbers reflect per cent of-age children.

With the advent of democracy, South Africa's education system undertook the enormous task of redressing the legacy of apartheid, particularly the chronic underfunding of black learners. However, progress has been stymied by several key issues, such as policy incoherence, poor management and corruption, aggressive teacher unionisation, an insufficient focus on technical and vocational education at secondary and tertiary levels, and a focus on early childhood development—issues that are now attracting more government attention.

A 2016 comprehensive report from the University of Stellenbosch identified four binding constraints to improving educational outcomes, particularly for learners from low-income backgrounds:

1. **Weak Institutional Functionality:** This is most pronounced at the provincial level, where ineffective governance and administration impede the implementation of national policies.
2. **Undue Union Influence:** Union activities, while protecting workers' rights, have sometimes contributed to resistance against necessary changes, such as performance evaluations and accountability measures for teachers.
3. **Inadequate Teacher Knowledge and Skills:** Many teachers need more content knowledge and pedagogical skills to deliver quality education, particularly in critical areas like literacy and numeracy.
4. **Wasted Learning Time:** Inefficient use of school hours and insufficient opportunities for learning further exacerbate educational deficits.

The consequences of these systemic issues are stark. The 2016 report revealed that around 60% of South African children could not read for meaning by the end of Grade 3.

The subsequent Covid-19 pandemic compounded these issues, with school closures and rotational timetables exacerbating educational inequalities, particularly in poorer communities. A 2021 study paints an even bleaker picture, showing that 81% of Grade 4 learners in South Africa cannot read for meaning in any language. This suggests that recent learning losses have set reading outcomes back a decade.

Money is not the problem. In 2023, South Africa's government allocated 6.6% of its GDP to education, almost two percentage points higher than the average for upper-middle-income countries (UMICs) globally and surpassed the average for UMICs in Africa. Despite this substantial investment, the South African education system grapples with significant challenges rooted in its historical context and current systemic inefficiencies. South Africa is the most critical learning underperformer relative to GDP per capita among low- and middle-income countries. With a spending commitment equivalent to some high-performing Scandinavian countries, South Africa does worse than Kenya or Tanzania, which have GDP per capita of less than one-fifth of South Africa. Chart 16 shows that throughput along the education funnel is high; the problems are related to quality - also reflecting poor governance, corruption and government efficiency.

In recent years, there has been some progress towards addressing these challenges. The South African education system is gradually shifting towards greater coherence, with an increased focus on technical and vocational training to prepare students for the demands of the Fourth Industrial Revolution. The 2013 White Paper for Post-School Education and Training and the subsequent National Plan for Post-School Education and Training 2021-2030 envisioned a significant increase in enrolment at Technical and Vocational Education and Training (TVET) and Community Education and Training colleges. The goal is for these institutions to enrol over two-thirds of all post-school education students, thus expanding opportunities for practical, skills-based learning.

In addition to practical matters relating to overcrowding, lack of basic facilities and teacher shortages, recommendations relating to improved education include the need for policy coherence across the various departments and levels of government (the most significant problems appear to lie at the provincial level), better management and aggressive efforts to eliminate corruption in the education sector, create a culture reflecting lifelong learning for teachers, as well as find a balance between teacher unionisation, parent involvement and government line responsibility. South Africa already focuses on early childhood development and technical and vocational education at secondary and tertiary levels.

The Education scenario addresses some of these shortcomings through ambitious yet attainable improvements in the South African education system, including higher intake, transition and graduation rates from primary to tertiary levels. It also emphasises gender parity, additional vocational training at the secondary level, and an increase in the share of science and engineering graduates. Perhaps most importantly, we include interventions to improve the quality of primary and secondary education.

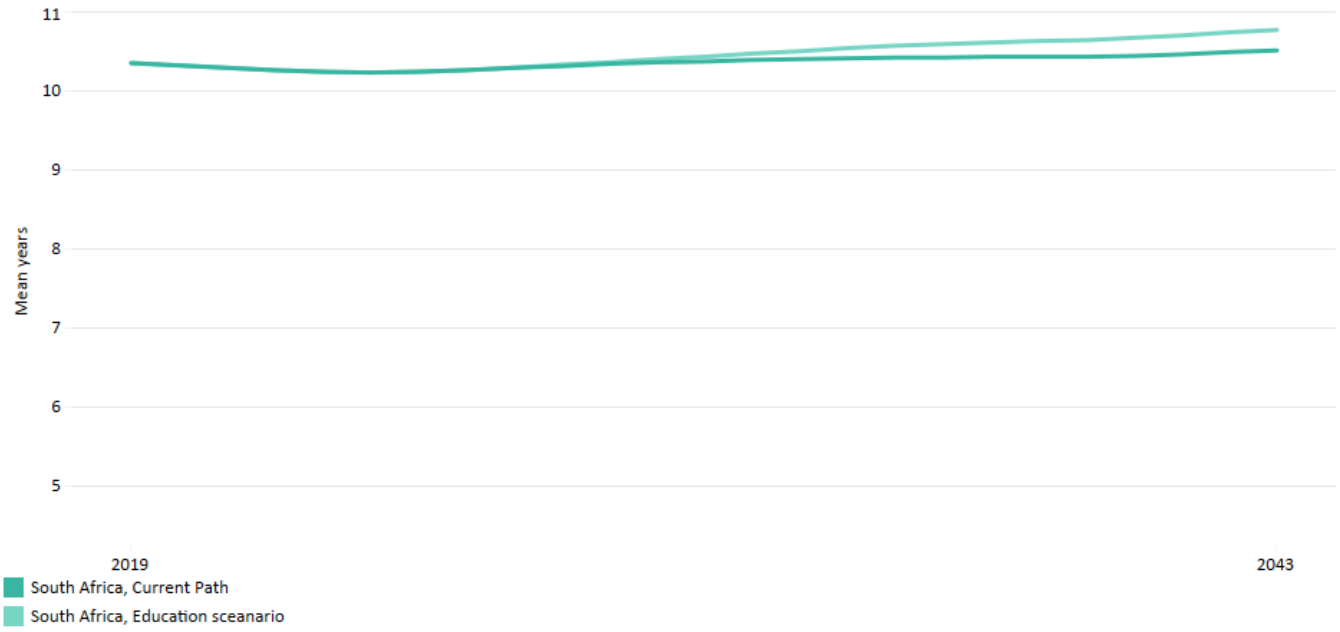
If successfully implemented, this scenario could significantly boost net enrolment rates for secondary and tertiary education, improve primary and secondary test scores, and improve quality, leading to better educational outcomes.

In the Education scenario, upper-secondary completion rates will increase from 49% of children of age in 2023 to 77% in 2043. The Current Path is 64%. Tertiary education graduation rates will increase to 24% of the age group in 2043 compared to 18% in the Current Path by 2043. In 2023, it is 12%.

Regarding quality, the scenario improves total primary test scores by 13% and total secondary test scores by 17%.

Chart 17: Mean years of education in the Current Path and Education scenario, 2019-2043

15 to 24 year age group



Source: IFs 8.26 initialising from Barro-Lee data

Chart 17 presents the mean years of education in the Current Path and in the Education scenario, from 2019 to 2043, for the 15 to 24 age group.

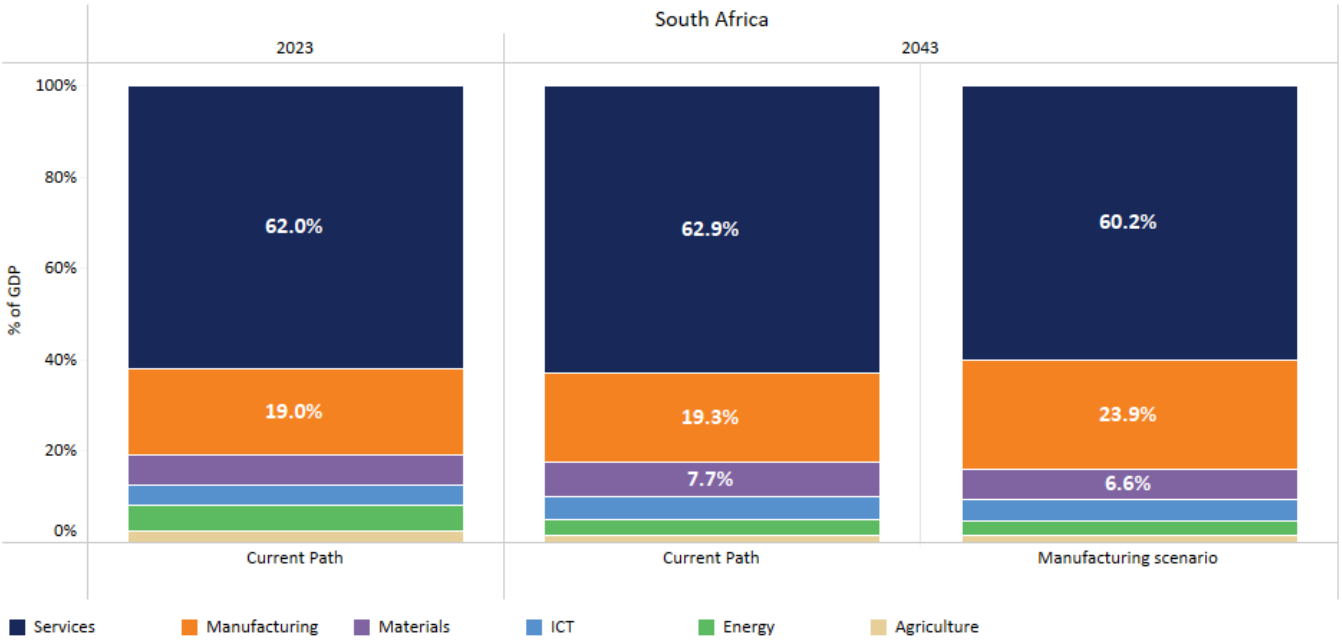
The average years of education among the adult population aged 15 to 24 serves as a crucial indicator of how the stock of knowledge in society is evolving. In South Africa, the mean years of education reached 10.3 in 2023, aligning closely with the 10.2 average for upper-middle-income (UMIC) African countries and significantly surpassing the 7.1 average for Africa as a whole. While the mean years of education among the female population are slightly below the average for UMICs in Africa, male attendance is notably 1.1 years lower than female attendance, yet it remains slightly above the average for upper-middle-income peers.

The establishment of the Government of National Unity in July 2024 includes new leadership in the Department of Basic Education and the promise of reform. The government's priorities now include creating safer and better schools, addressing critical issues such as infrastructure and educational quality, and making foundational changes that could influence long-term educational outcomes. These reforms are essential, as educational outcomes evolve slowly, requiring consistent investment and policy innovation to foster significant improvements over time.

In the Education scenario, and reflecting this renewed commitment, South Africa's investment in education will remain steady, with education expenditure expected to account for 4.93 percent of GDP by 2043. In this context, the increase in mean years of education to 10.8 by 2043 reflects the impact of the government's renewed focus on educational reform, placing South Africa slightly above the average for its income peers.

Manufacturing scenario

Chart 18: Value-add by sector in the Current Path and Manufacturing scenario, 2023 and 2043



Source: IFs 8.26 initialising from IMF World Economic Outlook data

Chart 18 presents the value add by sector, for 2023 and 2043, in the Current Path compared to the Manufacturing scenario.

In the Manufacturing scenario, reasonable but ambitious growth in manufacturing is envisaged through increased government revenues, part of which is invested in the manufacturing sector, and more expenditure on research and development (R&D). The increase is funded by an increase in firm taxes. The scenario includes an increase in female and male labour participation rates, reflecting growth in employment as part of a deliberate strategy to grow light manufacturing. Increased welfare transfers to unskilled workers mitigate the initial rises in inequality typically associated with a manufacturing transition, as well as transfers from skilled workers to government. The two interventions (more transfers to unskilled workers and reduced transfers to skilled workers) emulate government efforts at redistribution such as furthering its progressive tax regime to reduce inequality.

Visit the Manufacturing theme for more on our conceptualisation and details on the scenario structure and interventions.

The contribution of South Africa's manufacturing sector to GDP peaked at almost 25% in 1981, having steadily increased since independence in 1961. During this period, South Africa was under more punitive international sanctions and, amongst others, developed a sophisticated domestic arms industry that relied on various measures, such as large oil from the coal sector and general import replacement policies. Import replacement has its limits, however, and isolated from the global financial market and the positive effects of technological transfers, the country was, by the 1980s, essentially bankrupt.

With the transition from apartheid in 1990, many changes occurred, including rapidly opening up South Africa's economy but with adverse effects on its hitherto protected industries. The country experienced significant deindustrialisation as the

protection and subsidies that specific sectors enjoyed were removed. In addition to a much more open economy and international competition, the flood of Chinese manufacturing goods into Africa has undercut South African manufacturing exports in its natural hinterland. Various domestic policy measures intended to correct domestic economic imbalances, particularly stringent measures to effect black economic empowerment and associated requirements on ownership and shareholding, also discouraged foreign investment.

Whereas the manufacturing sector in others UMICs such as Belarus, Thailand and Hungary was above 30% in 2023, in South Africa it is at 19% (US$74.6 billion), comparable to Brazil and Namibia. On the Current Path, the contribution from manufacturing remains stagnant in the contribution that it makes to GDP at 19.4%, although it increases in size to US$122.8 billion.

Various documents frame South Africa's industrial policies including the National Industrial Policy Framework (NIPF), and Industrial Policy Action Plan (IPAP) and the country has a history of using industrial policy to deploy trade instruments, incentives, tools and regulation. In recent years the Department of Trade, Industry and Competition embarked upon partnerships, developing a masterplan for each of eight sectors covering areas such as automotives, clothing, steel and poultry to support localisation, increased investment, exports and job retention.

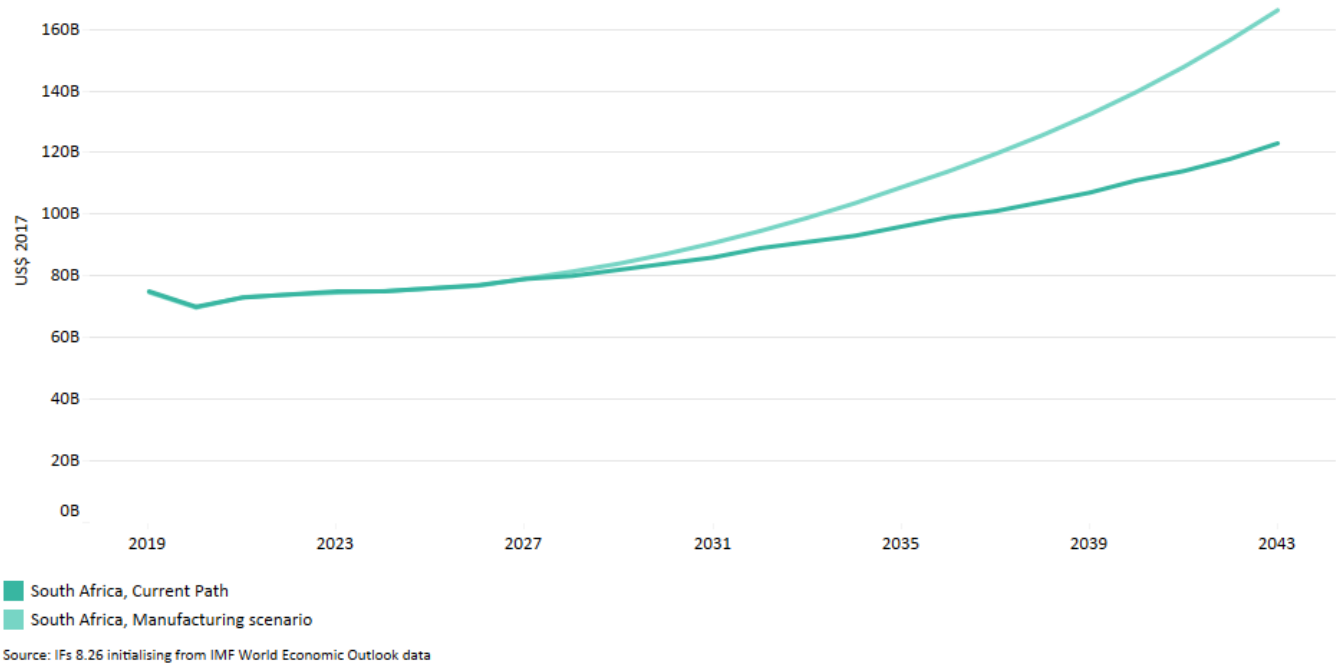
In the Manufacuturing scenario the contribution of the sector to GDP increases from 19% in 2023 (US$74.6 billion) to 23.9% equivalent to US$166.2 billion in 2043, equivalent to the contribution of manufacturing to GDP in Guatemala and Columbia. The Current Path for 2043 is 19.4% (US$122.8 billion). Government policy is to support new energy vehicle production and green industrialisation and the country is intent to lever its export footprint with the BRICS+ block, through the African Continental Free Trade Area (AfCFTA), as well as through the African Growth and Opportunity Act (AGOA) with the US, and its Economic Partnership Agreement with the EU.

The Manufacturing scenario increases the size of the country's economy by 9.6% in 2043 (to US$695 billion instead of US$634 billion in the Current Path). Instead of an economy that is US$634.1 billion in size in 2043. The size of the manufacturing sector will then contribute 23.9% instead of 19.4% to GDP. Hence the manufacturing sector is US$43.4 billion larger in 2043 compared to the Current Path.

In an effort to reduce inequality and extreme poverty, South Africa has a progressive tax regime and already allocates 10.72% of GDP to welfare transfers in 2023 (US$42 billion), but below the average rate in UMICs in Africa and globally. In the Manufacturing scenario, transfers to unskilled workers comes to an additional US$25.8 billion by 2043 (i.e. on top of the transfers in the Current Path). The transfers are funded by higher taxes on skilled workers and increased firm tax. The result is that the Manufacturing scenario has the largest impact on poverty reduction and also reduces inequality as measured using the Gini coefficient.

Chart 19 presents the contribution of the manufacturing sector to GDP in the Current Path and in the Manufacturing scenario, from 2019 to 2043. In addition to a larger economy, the scenario also reduces the number of persons living below US$6.85 by 3.1 million, the most significant contribution amongst the eight sectoral scenarios.

Chart 19: Value-add by the manufacturing sector in the Current Path and Manufacturing scenario, 2019-2043

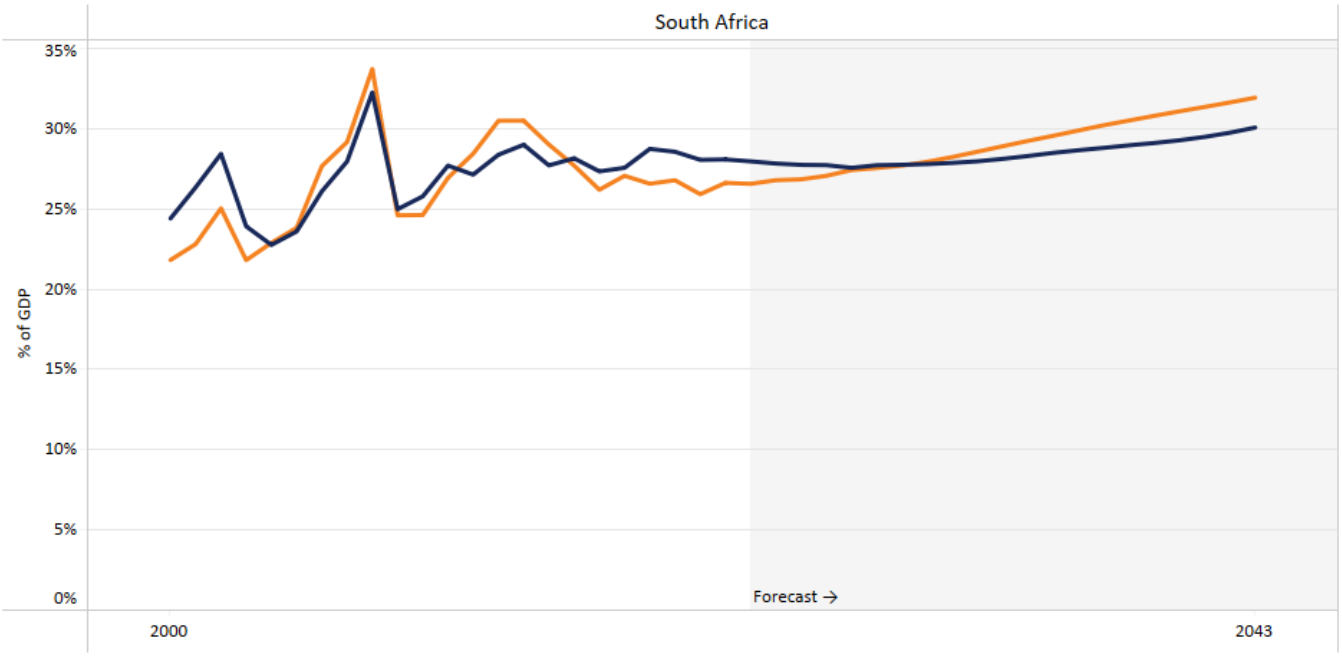


Source: IFs 8.26 initialising from IMF World Economic Outlook data

In addition to a revitalised mining sector and ongoing support to its vehicle manufacturing sector, repairing and rebuilding South Africa's existing infrastructure in water, electricity and sewerage provide large opportunities for investment in intermediate industrialisation, particularly. For example, the ESKOM Transition Development Plan 2022-2031 indicates that the total capital expenditure for transmissions amounts to approximately R188 billion of which R144 billion is for capacity expansion and R34 billion in capital expenditure. Together with the demand for the repair and expansion of other parts of basic infrastructure, electricity transmission offers a huge opportunity for industrialisation. Concurrent with investments in manufacturing the country would need to reduce the carbon-intensity of its products lest it fall victim to the EU's Carbon Border Adjustment Mechanism (CBAM) that will impose tariffs on imports based on their carbon content.

AfCFTA scenario

Chart 20: Export and imports as % of GDP in the Current Path, 2000-2043



Source: IFs 8.26 initialising from WDI data

Chart 20 depicts exports and imports as a percentage of GDP from 2000 to 2043 in the Current Path and the AfCFTA scenario.

The AfCFTA scenario emulates the full implementation of the African Continental Free Trade Agreement by 2034. The scenario increases manufacturing, agriculture, services, ICT, and materials[2]. It also includes improved multifactor productivity growth from trade and reduced tariffs for all sectors. The tariff reductions differ per sector and are per the AfCFTA agreement. According to the World Bank, the full implementation of the AfCFTA could increase South Africa's income by 3.8% relative to the Current Path by 2035. We used this number against which to benchmark the impact of our AfCFTA scenario.

Please visit the theme on AfCFTA for further conceptualisation and details on the scenario structure and interventions.

Since 1962, when the UN General Assembly took a first (non-binding) resolution condemning South Africa's apartheid policies, calling for economic and other sanctions, the country was subject to various trade, arms, sports and financial sanctions, eventually placing significant pressure on the South African economy. Internal pressure mounted, culminating in a limited and eventually a national state of emergency in 1985. 1977, the voluntary UN arms embargo became mandatory, and a voluntary international oil embargo followed in 1987. Meanwhile, the US and, eventually, the International Monetary Fund (IMF) were prohibited from providing loans to the country. By 1989, bipartisan support in the US favoured economic sanctions, and considerable momentum had built up in favour of disinvestment from South Africa. Large capital flight from the country eventually contributed significantly to the unravelling of apartheid.

After the unbanning of Nelson Mandela and the ANC, the country had the option of increased participation in regional and global value chains to facilitate access to intermediate goods, attract foreign direct investment (FDI) given substantial

international goodwill, and build the capabilities of local suppliers and, hence, promoted industrialisation and productivity growth. However, the absence of supportive conditions for competitiveness improvements means that poor trade integration, rapid liberalisation and competition from China led to deindustrialisation and locked South Africa into low-value production and exports. Still, in its Atlas of Economic Complexity, the Growth Lab ranks South Africa as the 68th most complex and diversified export basket out of 133 studied. The South African economy is considered "modestly complex" by international standards and ranked one position below Egypt, the most complex in Africa. An increase in the complexity ranking reflects positively on national productivity and economic sophistication.

The associated analysis by the Growth Lab indicates a decline in complexity compared to a decade prior; however, although South Africa is still slightly above expectations given its income levels, it dropped three positions in the global ranking. The analysis by the Growth Lab confirms the steady deindustrialisation that occurred since manufacturing value-add peaked at 25% of GDP in 1981.

Compared to other upper-middle-income (UMIC) countries globally, South Africa is significantly more dependent on income from primary exports at around 10.6% of GDP and energy imports. The average energy import share for UMIC countries (excluding China) is 6.2%. Moving forward, South Africa is, however, positioned to take advantage of many opportunities to diversify its production, given an end to its debilitating electricity shortages, promises of better governance and the opportunities presented by regional and international trade. To this end, the energy transition modelled in the Large Infrastructure and Leapfrogging includes a rapid decline in South Africa's coal mining industry, including associated exports.

However, South Africa's trade and industrial policy has been cautious regarding trade agreements. Instead of an export orientation, recent years have seen an increased focus on localisation, thus increasing the incentive to produce for the protected domestic market over exploring new export opportunities. This has raised barriers for new entrants and lowered competition for incumbent firms. These policies have reduced the efficiencies in South Africa's manufacturing sector and eventually reduced the country's ability to compete internationally. South Africa's declining trade competitiveness contrasts sharply with its value-added trading potential.

South Africa is already a member of the Southern African Customs Union (with Botswana, Lesotho and Eswatini) and the 16-member Southern African Development Community (SADC). SACU is the world's oldest customs union, formerly established in 1910, and its members maintain a standard external tariff, share customs revenues, and coordinate policies and decision-making on a range of trade issues. SACU has various trade agreements with the United Kingdom, the European Union, the European Free Trade Association (EFTA), MERCOSUR, the United States and other countries. For its part, SADC is in the process of establishing a Free Trade Area. COMESA, EAC and SADC have also established a Tripartite Free Trade Area (TFTA). The TFTA agreement entered into force in July 2024, fully liberalising tariff lines and eliminating non-tariff barriers. It is currently coordinated on a rotational basis among the three RECs. However, progress with trade integration in SACU, SADC, and the TFTA has been below expectations.

In 2016, South Africa joined the Economic Partnership Agreement (EPA) between the EU and the SADC EPA group (Botswana, Lesotho, Namibia, Mozambique, South Africa, and Eswatini), which expanded market access, especially in agriculture. South Africa also benefits from the African Growth and Opportunity Act (AGOA), a unilateral preferential agreement with the US.

Despite these agreements and opportunities, South Africa's exports constitute only 28% of GDP in 2023, compared to 54% for Thailand, 63% for Thailand and Malaysia, and 87% for Vietnam, and modestly above the average for Africa. Among Africa's eight UMICs, only Algeria has a lower rate of exports as per cent of GDP. The South African Reserve Bank highlight various reasons for the country's disappointing trade performance, including 'the structure of the country's export basket (which remains dominated by commodity products), its dependence on a limited number of large but mature export markets, and the high cost and deteriorating competitiveness of the general business environment.'

Even modest improvements in leveraging trade to drive growth would profoundly impact the South African economy.

According to the Observatory of Economic Complexity, South Africa's top exports in 2022 were gold (US$22.7 bn), platinum (US$19.1 bn), coal briquettes (US$12.7 bn), cars (US$6.89 bn), and diamonds (US$6.22 bn), mainly exporting to China (US$23.4 bn), United States (US$10.9 bn), Germany (US$9.96 bn), India (US$9.14 bn) and Japan (US$8.85 bn). In 2022, South Africa was the world's biggest exporter of platinum (US$19.1 bn), manganese ore (US$2.96 bn), chromium ore (US$2.51 bn), precious metal ore (US$1.97 bn) and titanium ore (US$656 million). That year top imports of South Africa were refined petroleum (US$17.1 bn), cars (US$4.62 bn), crude oil (US$4.34 bn), motor vehicles; parts and accessories (US$3.76 bn), and broadcasting equipment (US$3.12 bn), mainly importing from China (US$23.5 bn), Germany (US$9.67 bn), India (US$8.32 bn), United States (US$6.11 bn), and Saudi Arabia (US$4.5 bn).

The EU is South Africa's largest trading partner, accounting for around 22% of total trade in 2021. SADC absorbs 87% of South Africa's exports to Africa, much of which (around 64%) are manufactured goods. However, South Africa's services exports have stagnated since 2005 and have declined in recent years, contrary to the global trend in most other middle-income countries.

South Africa is a founding member of the African Continental Free Trade Area (AfCFTA), established in 2018 and came into legal force the following year, although only operational in April 2024. Under the agreement, AfCFTA members are committed to eliminating tariffs on most goods and services over a period of 5, 10 or 13 years, depending on the country's level of development or the nature of the products. Its long-term objectives include creating a single, liberalised market, reducing barriers to capital and labour to facilitate investment, developing regional infrastructure, and establishing a continental customs union. The establishment of the Pan-African Payment and Settlement System (PAPSS) in 2022 allows payments among companies operating in Africa to be done in any local currency.

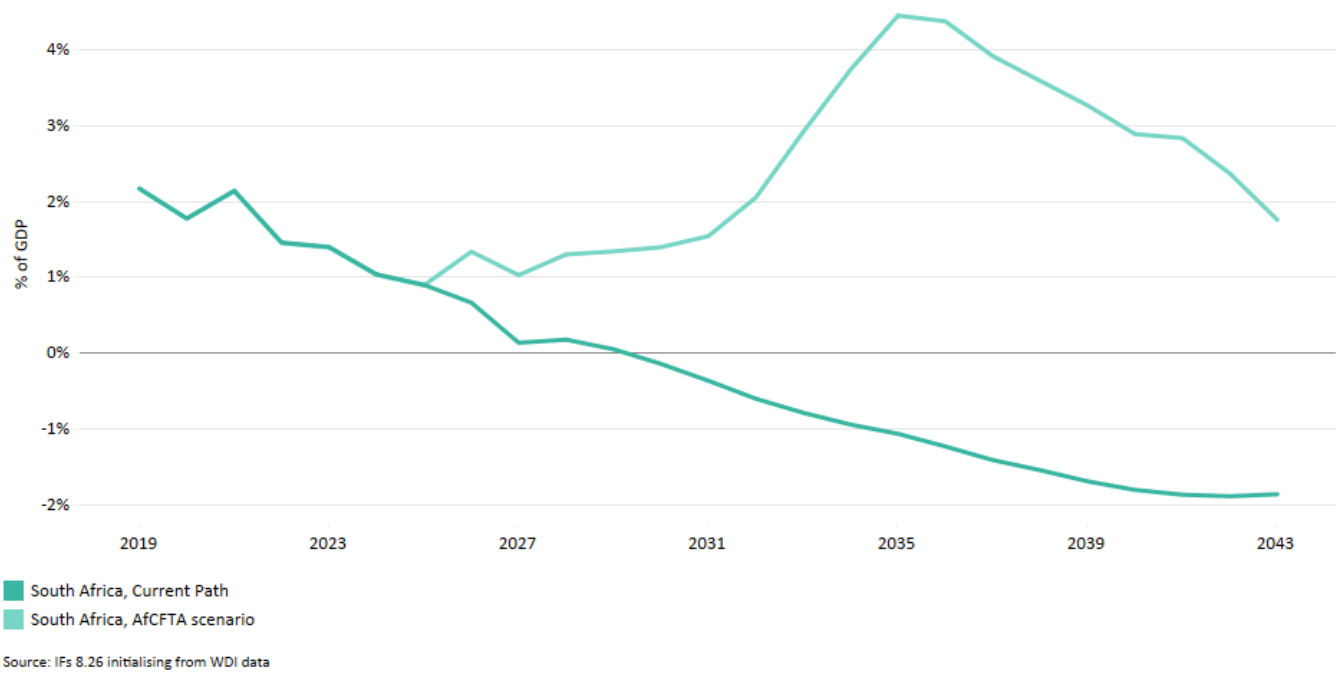
South Africa has a natural advantage in trade with the region, and the full implementation of the AfCFTA has the potential to boost its manufacturing trade with the region and its role as a logistics and services hub in Southern Africa.

Speaking at the opening of Parliament on 18 July after the 2024 elections that resulted in establishing a GNU, President Ramaphosa noted: 'We see great potential for growth beyond our borders. As we strengthen economic diplomacy with our largest and potential trading partners, we will prioritise the implementation of the African Continental Free Trade Area to increase our exports to the rest of the continent.'

The AfCFTA scenario increases total trade (imports plus exports) as a percentage of GDP from 54.5% in 2023 to 75.5% in 2043. On the Current Path, it would be 62%. The difference is equivalent to US$129.5 billion of additional trade. Implementing the Agreement will be particularly beneficial to South Africa given its level of development and more significant manufacturing sector compared to its neighbours. It could be part of a more comprehensive developmental program to incentivise industrialisation and investment. In addition to requirements relating to network inefficiencies, to unlock these opportunities, the government would have to introduce incentives that reduce the current export concentration levels, which are limited to a few firms, and incentivise small and medium-sized exporting firms.

A recent paper by the South African Reserve Bank argues that the country 'urgently needs to address the high costs of investment and trading across borders; review the impact of existing industrial, localisation and sector-specific policies on export behaviour; implement a comprehensive and well-targeted export promotion and export finance framework; and update its trade policy approach to negotiations across the continent and internationally.'

Chart 21: Trade balance in the Current Path and AfCFTA scenario, 2019-2043



Source: IFs 8.26 initialising from WDI data

Chart 21 presents the trade balance in the Current Path and in the AfCFTA scenario, from 2019 to 2043 as a percentage of GDP.

South Africa is Africa's largest trading nation by value when considering explorts plus imports, estimated at US$214 billion in 2023 and equivalent to around 54% of GDP. Egypt has the second-hightest trade by value in Africa. Broken down by individual countries, China, the United States, Germany, Japan and the United Kingdom were South Africa's top export destinations. China also leads as the largest source of imports followed by Germany, the United States, India and Saudi Arabia.

Higher exports associated with greater global and regional integration could bring substantial additional gains for South Africa, boosting growth and employment, particularly if accompanied by export diversification in both produces and markets. It could also support the adoption of productivity-enhancing technology through imported intermediate goods, which have not yet widely penetrated South African markets. This could also enable increased scale economies and specialisation, leading to job creation, inclusive growth and poverty reduction. In the view of the World Bank an outward orientation could help increase competition in domestic markets and it argues that international trade has contributed significantly to prosperity in many developing countries by supporting the development of new, higher-paying jobs and increasing the efficiency of firms, as well as by providing consumers with cheaper and better products.

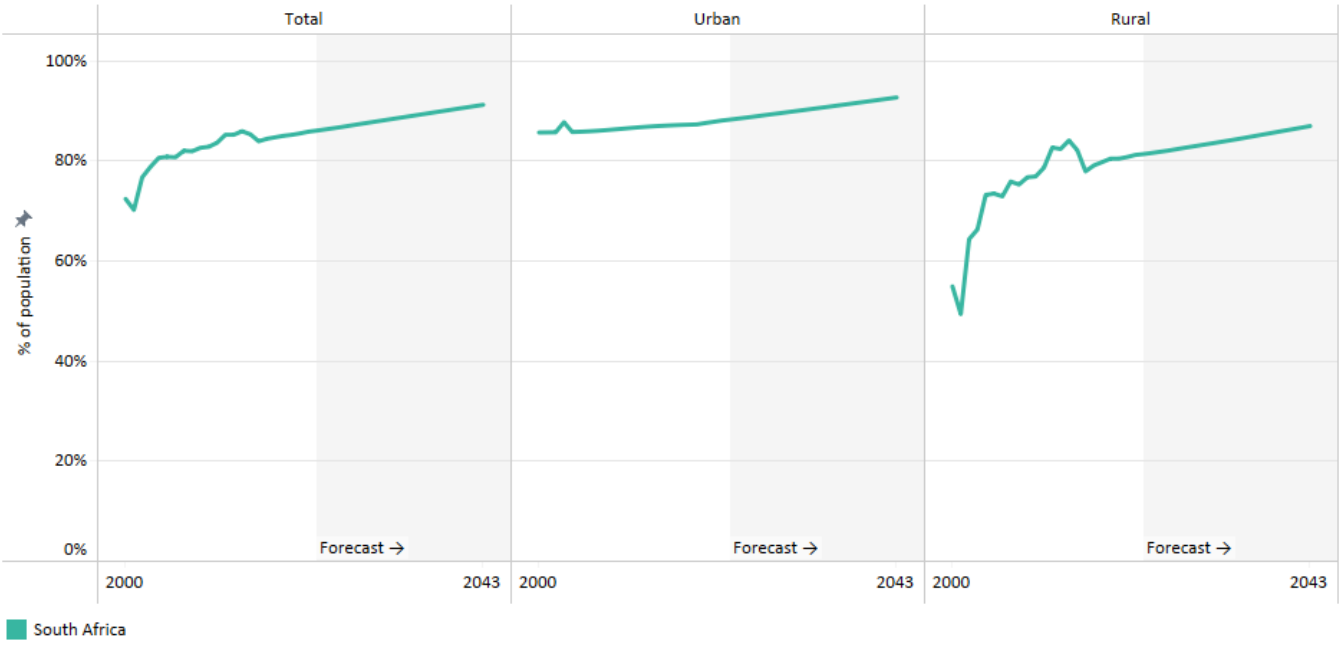
The Bank argues, that traditional drivers of growth— household and government consumption—have been hampered by a depressed labour market and tighter fiscal policy, constraining the South African government's ability to boost aggregate domestic demand. The result is that South Africa has underperformed in terms of exports relative to its peers over the past two decades, including when compared to Brazil, Russia, India, China, Turkey, Thailand and Malaysia. Thus, according to the Bank: 'Total merchandise exports have stagnated in the years preceding the [COVID-19] pandemic with all major product groups except food products declining during the decade from 2010 to 2019. They have also continued to be dominated by minerals and agricultural products, while manufactured exports have become increasingly concentrated in resource-based products, with the exception of the automotive sector. Overall, after the 1990s, the growth of

manufacturing exports has been insufficient to enable a manufacturing export-led growth path. The economic contraction during the global financial crisis, followed by a tepid economic growth, which coincided with the continuous decline in electricity supply, growing governance and policy uncertainties, and continued fierce import competition during the remainder of the decade and a half, contributed to the exit of firms and the hollowing-out of the productive base in manufacturing, including that of exporters'.

South Africa stands to benefit greatly from the AfCFTA scenario including a positive current acount balance, reflected in Chart 21. GDP growth in South Africa has a propensity to rapidly increase imports and often results in a negative trade balance that requires efforts to temper growth down. The total economy will be US$58.3 billion (or 9.2%) larger (than the Current Path). The GDP per capita in South Africa was US$12 980 in 2023 and is set to increase to US$15 380 on the Current Path. In the AfCFTA scenario, South Africa's GDP per capita increases to US$16 330 in 2043, an improvement of 6.2% (or US$950) above the Current Path although extreme poverty only declines marginally given the country's high levels of inequality.

Large Infrastructure and Leapfrogging scenario

Chart 22: Electricity access: urban, rural and total in the Current Path, 2000-2043



Source: IFs 8.26 initialising from WDI data

Chart 22 presents the Current Path of access to electricity for urban, rural and total population from 2000 to 2043.

In July 2024, during the presentation of the 2024/25 departmental budget policy speech, the newly appointed Minister of Public Works and Infrastructure vowed to 'unleash a wave of infrastructure investment … to turn the country into a construction site' with the ambitious goal of increasing the ratio of gross fixed capital formation from 14% to 30% of GDP. This commitment was soon supported by a report from S&P Global Market Intelligence, highlighting the urgent need to address South Africa's infrastructure bottlenecks in energy, ports, rail, and water. The associated inefficiencies have led to significant delays and increased costs, particularly hampering smaller firms' ability to export. South Africa's disadvantage due to its distance from significant trading markets has been further exacerbated by the inefficiencies of its ports, deteriorating rail infrastructure, and high road freight and pipeline transport costs.

South Africa has made significant progress in expanding electricity access, outpacing most other African nations except for those in North Africa. In 2023, 86% of South Africans had access to electricity (the ninth-highest rate in Africa), rising to 91% in the Current Path and 100% in the Large Infrastructure and Leapfrogging scenario. By comparison, Africa's average electricity access rate was 57% in 2023 and will reach 72% by 2043. Notably, South Africa's urban-rural electricity access gap will be just seven percentage points by 2043, much narrower than the 41-percentage point difference observed across the continent in 2023.

However, South Africa has been plagued by regional blackouts (load shedding) since 2007 due to poor planning and chronic mismanagement, leading to insufficient generation capacity and low energy availability. The sector also faces challenges such as rampant illegal connections and the inability of many customers to afford rising electricity prices. This situation began to improve in 2024. While coal will continue to dominate the energy mix, the country is rapidly increasing its renewable energy capacity. Focus is also shifting towards gas and a new nuclear build program.

The 2023 Integrated Resource Plan (IRP) outlines a phased approach to nuclear energy, with an additional 2 500 MW expected to come online between 2031 and 2035, followed by 1 925 MW between 2036 and 2040, and 10 075 MW projected for the period 2041-2050. Other energy production considerations include exploiting local recoverable shale and inland and coastal gas reserves (based on recent discoveries) and importing gas from Mozambique and Namibia. South Africa must also develop and extend its transmission grid, which is currently constrained in parts of the Eastern, Northern and Western Cape. The sector also faces challenges such as rampant illegal connections and the inability of many customers to afford rising electricity prices.

In August 2024, President Ramaphosa signed the Electricity Regulation Amendment Act into law, enacting far-reaching reforms in the country's electricity sector. The Act aims to boost investment in new generation capacity to secure energy supply, establish an independent transmission system company within five years to oversee the national grid and impose severe penalties for infrastructure damage and sabotage.

With electricity outages now under control, South Africa's next major challenge is water. As a water-scarce country, South Africa has faced crises like Cape Town's "Day Zero" between 2015 and 2018, when the city came close to running out of water. Although the crisis was averted, the country continues to struggle with national water shortages due to delays in crucial infrastructure projects. For instance, the nine-year delay in starting the Second Phase of the Lesotho Highlands Water Project, which is vital for supplying more water to the Vaal River for Gauteng, means the demand-supply situation will remain tight until 2028. Similarly, the uMkhomazi Water Project for eThekwini and surrounding municipalities has faced significant delays.

Looking ahead, the National Water Resource Infrastructure Agency Bill, once enacted, will facilitate substantially more investment in national water resource infrastructure. However, the performance of municipal water and sanitation services has sharply declined in recent years, mainly due to poor leadership at the municipal level. According to the Department of Water and Sanitation (DWS), 73% of the country's 144 Water Services Authorities (WSAs) scored as critical or poor according to the 2023 Blue, Green, and No-drop assessment reports, increasing the risk of water-borne diseases, including cholera. Additionally, the national average for municipal non-revenue water, water "lost" before reaching customers, increased from 37% in 2014 to 47% in 2023. Municipalities with high levels of non-revenue water cannot pay water boards for treated water. They cannot afford to properly maintain and operate their water distribution infrastructure, often diverting funds intended for water services to other purposes.

To address the poor management and maintenance of water infrastructure, the Water Services Amendment Bill will provide the 134 municipalities that serve as water services authorities with additional powers. The Department of Water Affairs and Sanitation also intends to launch a large-scale water awareness campaign.

South Africa has the largest network of paved roads in Africa, with high road density. However, a lack of maintenance in recent years has led to significant deterioration, particularly in the Free State province. The decline in rail services has resulted in a substantial shift of commuter and freight transport to roads, contributing to over 10 000 fatal crashes annually—an issue that the Road Traffic Management Corporation (RTMC) estimates costs almost 3% of the country's GDP. Following the decline in public transport, particularly rail, the 2020 National Household Travel Survey found that taxis carry 83% of public transport users, associated with more significant wear and tear to roads and more traffic accidents. Efforts to reduce road deaths are guided by the National Road Safety Strategy (NRSS) 2016 -2030.

Other elements of the transport sector, such as rail and ports, have also deteriorated, particularly during the COVID-19 pandemic. The rail freight system has been plagued by long delays in moving critical bulk minerals, containers, and vehicles, while port terminals and strategic border crossings suffer from congestion. South Africa's ports, operated by state-owned Transnet, have been among the world's worst-performing and least competitive; in 2023, Cape Town and Ngqura (in the Eastern Cape) ranked 405th and 404th globally, respectively. In mid-2024, an internal report revealed that

coal shipments had plunged to over a three-decade low due to inefficiencies at Transnet, which cited a lack of locomotives and spare parts, along with infrastructure faults and signalling system issues.

In response to these challenges, the government, in collaboration with businesses and unions, formed the National Logistics Crisis Committee (NLCC) to improve the operational performance of industry supply chains, including freight rail and ports; implement reforms to modernise the freight transport system for efficiency and competitiveness; and enact necessary regulatory changes or exemptions to enable efficient procurement and adequate funding for network maintenance. The NLCC oversees the implementation of the Freight Logistics Roadmap, which includes a framework for private sector participation, a Freight Road to Rail Migration Plan, and a Transnet Recovery Plan. Additionally, in 2023, the Cabinet approved a Rail Policy to guide the future of freight rail and urban commuter rail.

Many of South Africa's infrastructure problems stem from the collapse of municipal management. The next phase of Operation Vulindlela, a turnaround program managed by the Presidency, will prioritise fixing local government with assistance from the Development Bank of Southern Africa (DBSA), a significant lender to local governments.

To address these challenges, the Large Infrastructure and Leapfrogging scenario simulates improvements in infrastructure investment, policy reforms and institutional capacity to overcome the bottlenecks in energy, water, transport and municipal services, thereby driving sustainable economic growth and development. The scenario includes improved rural and urban electricity access and accelerated fixed and mobile broadband connectivity. It incorporates general investments in significant infrastructure projects ("other infrastructure") like rail, ports and airports. It reduces electricity transmission and distribution loss and lowers the cost of adding ICT connections. The scenario also includes an additional nuclear build, natural gas exploitation and a rapid uptake and deployment of renewable energy as reflected in the 2019 and 2023 versions of the Integrated Resource Plan (IRP).

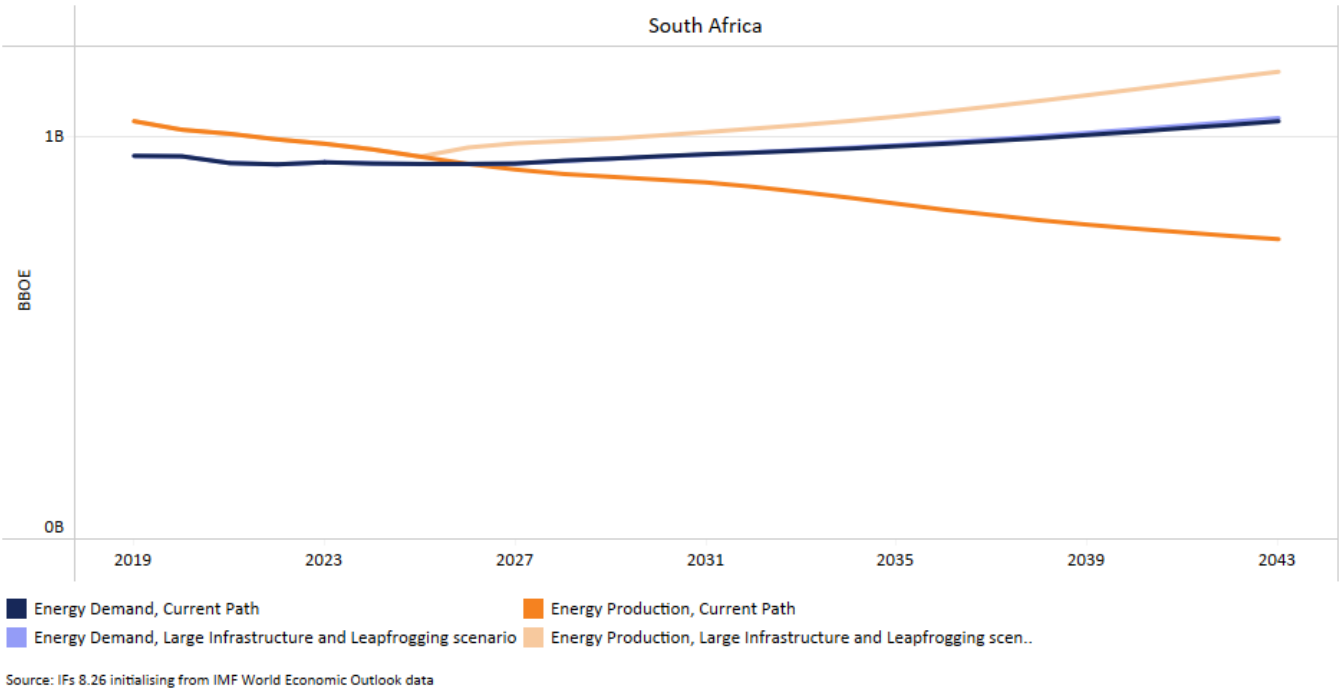
Visit the themes on Large Infrastructure and Leapfrogging for our conceptualisation and details on the scenario structure and interventions.

The Large Infrastructure and Leapfrogging scenario envisions South Africa achieving 100% electricity access by 2043, compared to 91% on the Current Path, with remarkably rapid improvements in rural areas by deploying mini-grids and renewable energy solutions.

These advancements translate into tangible economic benefits: GDP per capita in 2043 would be US$1 000 (or 6.5%) higher than the Current Path, and an additional 3.13 million people would be lifted above the poverty line of US$6.85 per day. The scenario projects the South African economy to grow to US$694.8 billion by 2043, which is US$60.7 billion more than the Current Path.

These improvements have far-reaching implications, extending beyond the energy sector. Enhanced infrastructure would also bolster other areas, such as increased trade under the AfCFTA scenario and improvements in agricultural productivity. The systemic benefits of these infrastructure investments are further amplified in the Combined scenario, which captures the synergistic effects across multiple sectors.

Chart 23: Energy demand and production in Current Path and Large Infra/Leapfrogging scenario, 2019–2043



Source: IFs 8.26 initialising from IMF World Economic Outlook data

Chart 23 compares energy demand with production in the Current Path with the Large Infrastructure and Leapfrogging scenario, from 2019 to 2043. It shows the extent to which the country faces significant Current Path energy insecurity beyond 2025 and the extent to which the Large Infrastucture and Leapfrogging scenario reverses that trend.

South Africa has a large energy sector compared to other countries at similar levels of development, pointing to energy inefficiencies. For example, in 2023, South Africa's energy sector represented 5.6% of GDP, compared to a global average for upper-middle-income countries (UMICs) of 3.3%. In 2023, South Africa's energy production consisted of:

- 95% from coal
- 2.1% each from nuclear and other renewables
- 1% from gas
- 0.1% from hydro
- negligible from oil.

The future is one of increased energy insecurity as the country has committed to using less coal (of which it also exports large quantities), pointing to the need for large investments in renewables and other sources.

The two recent versions of the Integrated Resource Plan (IRP) published, in 2019 and 2023, set out government aims to secure electricity supply through a balanced approach between supply and demand, considering environmental concerns and overall costs. The IRP 2023 sets out scenarios in two timelines. The first is to 2030, with a focus on addressing existing generation capacity constraints and system needs. The plan aims to then achieve a resilient national electricity sector during the second period from 2031 to 2050. In pursuit of these goals, the Large Infrastructure and Leapfrogging scenario,

with its associated emphasis on additional renewables, nuclear, and gas and renewable energy production, will reduce South Africa's dependence on coal compared to the Current Path significantly.

In the energy modelling for the Large Infrastructure and Leapfrogging scenario, we first reduce energy production from coal in accordance with South Africa's schedule for the decommissioning of its coal fired plants as set out in various planning documents, particularly those relating to commitments relating to reductions in greenhouse gas emissions to keep global warming to 1.5^{o}C, if possible. Instead of 66% of energy production from coal in 2043, in the scenario, coal accounts for only 21% of energy production. In accordance with South Africa's stated National Determined Contribution, only the Majuba, Kusile and Medupi coal-fired plants would still be operational in 2043 with an installed capacity of 13.5GW. In the meanwhile South Africa's energy demand would have increased substantially, pointing to a growing gap between production and demand reflected in the Current Path in Chart 23. To fill the demand-production gap, we increased renewable, gas and nuclear production to the level that would provide energy security (i.e. matching production with demand), and reduced the country's energy exports to ensure that the reduced domestic coal demand does not merely translate into exports.

The Large Infrastructure and Leapfrogging scenario:

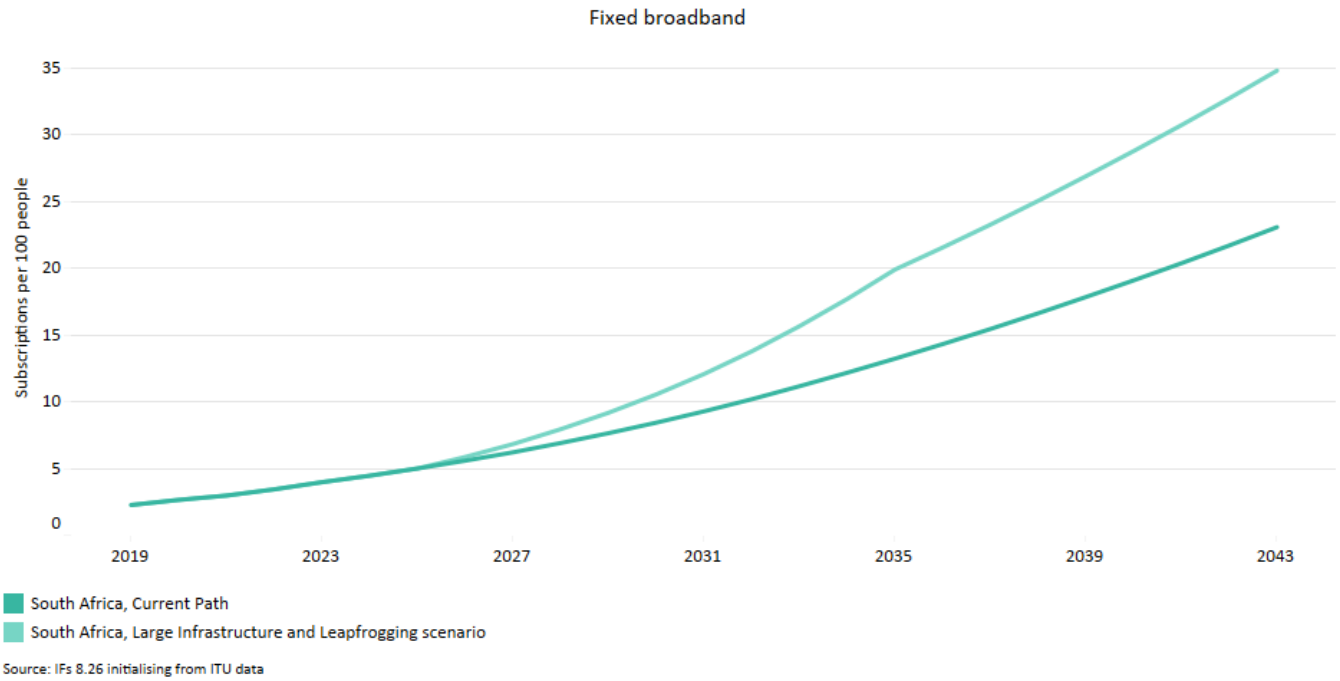
- Ramps up renewables to 20% of total production by 2030 and 65% by 2043.
- Increases nuclear capacity to 14.5 GW by 2050 as proposed in two of the production scenarios in IRP 2023.[3]
- Increases the portion of energy from gas from less than 1% to 19% of total production, including exploiting local recoverable shale and inland and coastal gas reserves (based on recent discoveries off the South and West coasts) and importing gas from Mozambique and Namibia.
- No changes were made to the forecasts of energy from hydro or oil.

The scenario provides energy security but production barely keeps pace with the rapid growth that will occur in the Combined scenario, examined elsewhere. So, in the Combined scenario, South Africa still has a degree of energy insecurity but energy imports are significantly below the Current Path, given the increase in domestic production. See Chart 37.

South Africa must also develop and extend its transmission grid which is currently constrained in parts of the Eastern, Northern and Western Cape.

The results of these choices will have significant implications for South Africa's carbon emissions from fossil fuels. See Chart 36.

Chart 24: Access to mobile and fixed broadband in the Current Path and Large Infra/Leapfrogging scenario, 2019-2043



Source: IFs 8.26 initialising from ITU data

Chart 24 presents the percentage of the population and number of people with access to mobile and fixed broadband in the Current Path and in the Large Infrastructure and Leapfrogging scenario, from 2019 to 2043.

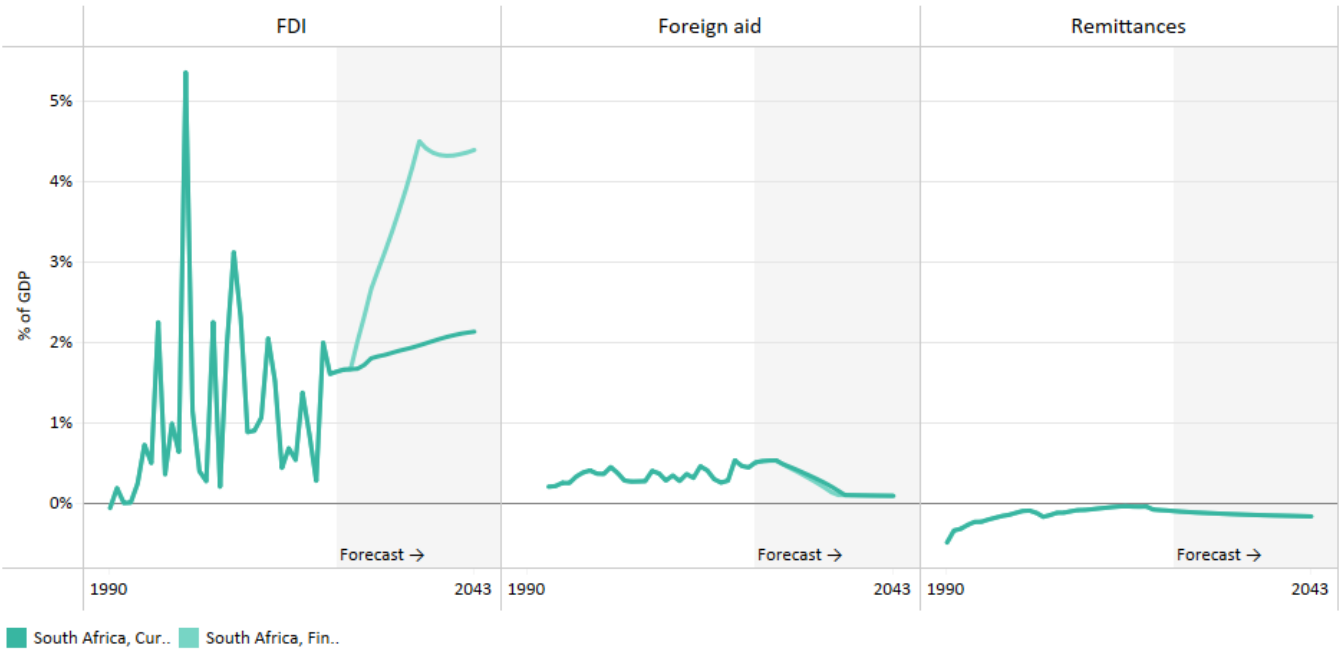
Over the past decade, South Africa's online presence has expanded significantly. In 2023, 66% of the population had access to the internet, a significant increase from the 10% recorded in 2009 although still short of the National Development Plan (NDP) pathway which envisions a fully connected society by 2030. According to the Digital Quality of Life Index (DQL) 2023 (an index that ranks countries according to internet affordability, quality, e-infratructure, e-security and e-governance), South Africa ranked 1st out of 25 African countries surveyed and overall 72nd out of 121 countries globally.

With four fixed broadband subscribers per 100 people in 2023, South Africa slightly surpassed the African average of 3.5. The Current Path is for 23.1 subscriptions per 100 people, still above the 21.4 average for Africa. In the Large Infrastructure and Leapfrogging scenario fixed broadband subscriptions will increase to 34.6 per 100 in 2043. This surge, over the Current Path, aims to boost high-speed, reliable internet access across the nation. This expansion will assist in bridging the digital divide, ensuring equitable access for all communities.

In parallel, mobile broadband has shown remarkable penetration, with subscriptions already high at 137 per 100 people in 2023. This figure will climb by an additional 5% in the scenario, reaching 163 subscriptions per 100 people by as early as 2027. Mobile broadband remains a pivotal element of South Africa’s connectivity strategy, providing essential links for many in remote areas and promoting widespread internet usage throughout the country.

Financial Flows scenario

Chart 25: FDI, foreign aid and remittances as % of GDP in the Current Path and Financial Flows scenario, 1990-2043



Source: IFs 8.26 initialising from IMF data

Chart 25 presents the trends in FDI, aid, and remittances as a percentage of GDP in the Current Path from 1990 to 2043.

This section first discusses remittances, followed by development aid, foreign direct investment and illicit flows.

South Africa has historically been a significant source of outward remittances within the Southern Africa Development Community (SADC) region, especially during the 1970s and 1980s when its mining sector heavily relied on migrant labour from neighbouring countries. This reliance drove high remittance outflows as workers returned money to their home countries. However, starting in the 1990s and continuing into the early 2000s, these outflows declined due to a combination of factors: the downturn in the mining sector, broader economic challenges, a reduction in the demand for foreign labour and high remittance costs. This decline in remittances reached its lowest point between 2015 and 2019. South Africa has also received some inward remittances (although dwarfed by outflows) as skilled outward emigration grew.

Remittance outflows from South Africa have slightly increased following the initial decline during the COVID-19 pandemic. This resurgence is partly due to the recovery in employment and economic activity, along with improvements in policies and financial mechanisms that have made sending money across borders more accessible and cost-effective. Additionally, renewed economic ties and continued migration are expected to drive further increases in remittance outflows in the coming decades. The Current Path suggests that with ongoing policy enhancements and technological advancements in the remittance sector, South Africa's role as a key source of remittances within the region will continue to grow, providing critical financial support to neighbouring countries such that by 2043, remittance outflows will likely grow to US$1 billion per annum, up from US$385 million in 2023 (Chart 25).

South Africa received little development aid owing to its status as an upper-middle-income economy, and it is unlikely that

this trend will change. In 2023, the country received aid equivalent to 0.5% of the GDP (US$2 billion). In the Current Path, assistance to South Africa declines to 0.1% of GDP in 2043 (US$0.6 billion).

Traditionally, European countries such as the United Kingdom, Netherlands, Belgium, Germany, Luxembourg as well as the United States, Japan, China, and Australia have been the largest foreign investors in South Africa. Most of their investments are in the financial, mining, manufacturing, transportation and retail sectors. In recent years, FDI from China has surpassed that of the United Kingdom, which historically held a dominant position as a significant investor in South Africa due to its strong historical ties. Investment from China is mainly in mining and infrastructure.

Declining investor confidence has dramatically impacted the South African economy, where actual gross fixed capital formation by the private sector is significantly below that of peer countries. Although it attracted more FDI after transitioning to democracy in 1994, inflows slowed after 2000.

The Ramaphosa government has been actively pursuing domestic and international investment as part of its broader economic recovery plan to stimulate economic growth. It hosted investment summits in 2018, 2019 and 2022 — against a target to raise US$100 billion in new investment over five years. These targets have fallen foul of COVID-19 and ongoing challenges in infrastructure, poor investment climate and instability, with large riots in KwaZulu-Natal and Gauteng in July 2021 that accompanied the brief incarceration of former president Jacob Zuma. Other policies include the Critical Infrastructure Program (CIP), an incentive scheme to bolster infrastructure investment, and the establishment of five Industrial Development Zones (IDZs) and six special economic zones (SEZs). The latter focuses on industrial development, and the IDZs offer duty-free import of production-related material and various other incentives.

Currently, South Africa attracts limited FDI, although more than 180 Fortune Global 500 companies are present in South Africa. Modern economies must be plugged into the global capital market. South Africa is globally more connected to the international financial system than any other African country but has yet to gain ground. Accessing capital at a reasonable cost is indispensable for South Africa, a country with a meagre national savings rate. In 2023, South Africa received FDI inflows of roughly 1.6% of GDP, slightly below the 1.8% average for Africa's eight UMICs. The average for UMICs globally in 2023 was 3%. Without unlocking sustained high levels of domestic and foreign investment, South Africa will not escape its recent history of slow economic growth trajectory.

The Financial Flows scenario reduces outward financial flows to emulate a reduction in illicit financial outflows. It includes an aggressive intervention on increased inward flow of investment stocks and portfolio investment. Unlike most African countries, the South African scenario does not include interventions on additional aid (owing to its income status) or changes to remittances.

You can visit the theme on Financial Flows for our conceptualisation and details on the scenario structure and interventions.

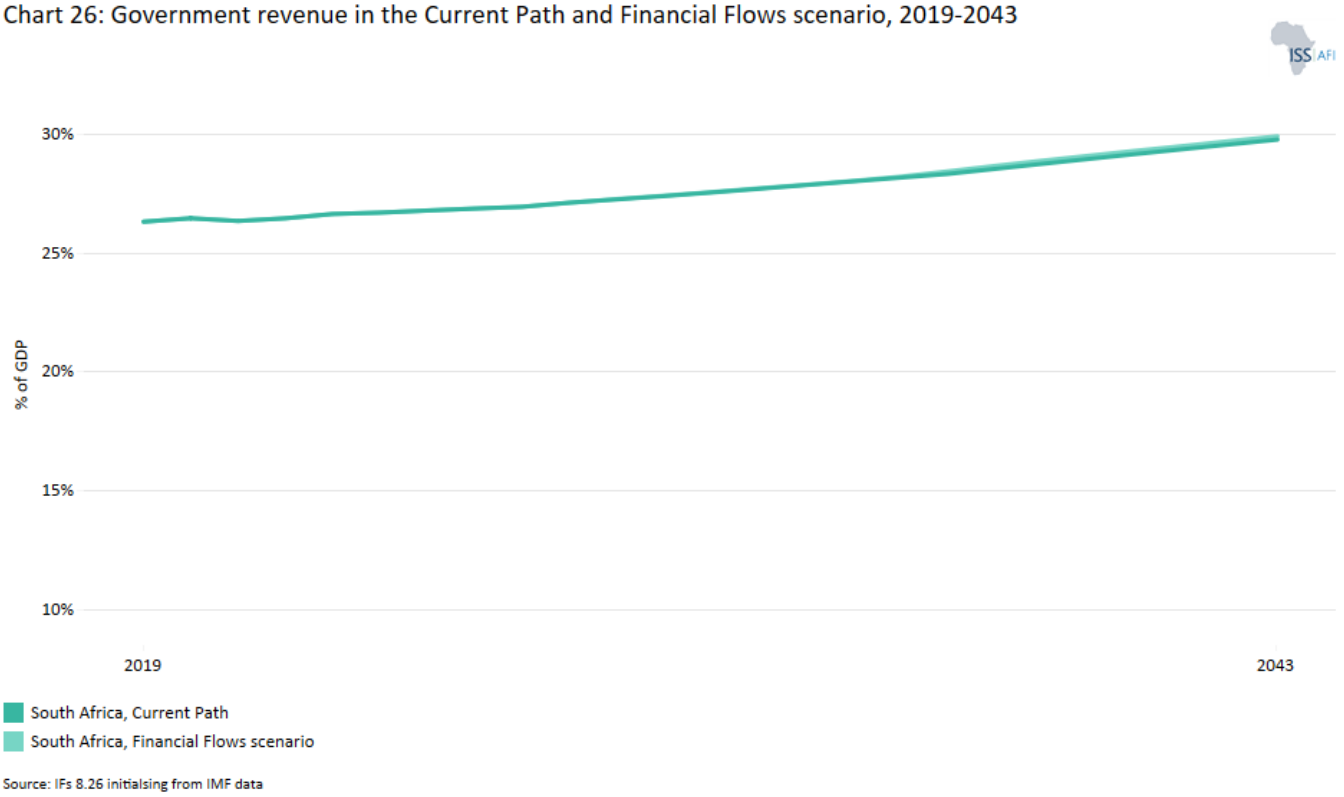
In the Financial Flows scenario, FDI inflows to South Africa increase significantly to 4.4% of GDP in 2043 compared to 2.1% of GDP in 2043 on the Current Path. The impact of the Financial Flows scenario is to increase South Africa's stock of FDI in 2043 to US$331 billion (50% of GDP) compared to the Current Path forecast of US$188 billion (30% of GDP). The stock of FDI in South Africa was US$107 billion in 2023 (27% of GDP).

These elevated levels of FDI will require policy certainty, regulatory oversight, an improvement in South Africa's credit rating, removal of its "grey listing" by the Financial Action Task Force related to money laundering and terrorist financing and a reduction in the regulatory burden and cost of doing business.

South Africa can expect substantial economic benefits if these levels of FDI can be achieved, including accelerated

economic growth that could also lead to higher living standards. The impact of the Financial Flows scenario is an economy that is US31 billion larger in 2043 and a positive increase in per capita income of US$510 in 2043 compared to the Current Path forecast. Extreme poverty increases marginally (by 30 000 persons) in 2043 since FDI invariably benefits skilled labour.

Chart 26: Government revenue in the Current Path and Financial Flows scenario, 2019-2043



Source: IFs 8.26 initialsing from IMF data

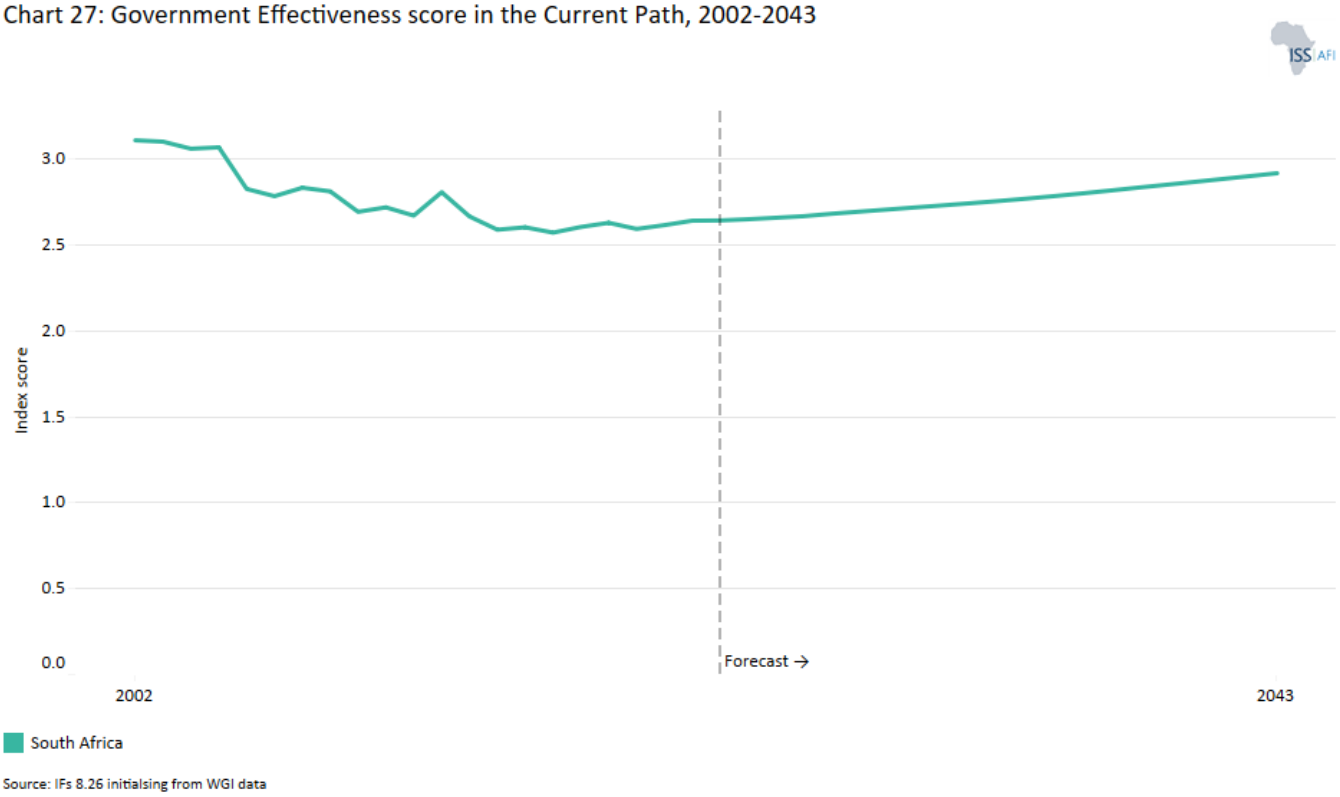
Chart 26 presents government revenue in the Current Path and the Financial Flows scenario, from 2019 to 2043. The data is in US$ and % of GDP.

Wagner's law, or the law of increasing state activity, is the observation that public expenditure increases as national income rises. It is reasonable to expect that government revenues will increase as a per cent of GDP in the Financial Flows scenario compared to the Current Path.

Measured as a per cent of GDP, government revenue in South Africa stood at 26.6% of GDP (equivalent to US$104.5 billion) in 2023. In the Current Path, government revenue will reach 29.8% (equivalent to US$188.7 billion) of its GDP in 2043. In the Financial Flows scenario, however, government revenues will increase by 0.14 percentage points of GDP to about US$199 billion (equivalent to 29.9% of GDP) in 2043, around four percentage points below the average for upper-middle-income countries in Africa or UMICs globally. Increasing government revenues will add additional capacity to government. Much of the increase (US$10.3 billion) is due to the effect of more inward investment on growth.

Governance scenario

Chart 27: Government Effectiveness score in the Current Path, 2002-2043



Source: IFs 8.26 initialsing from WGI data

Chart 27 presents the Current Path of government effectiveness for South Africa from 2002 to 2043.

The World Bank's index on government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Governance effectiveness in South Africa has steadily declined since the World Bank started releasing regular estimates in 2002 and was particularly affected by state capture, corruption and various inefficiencies under the presidency of Jacob Zuma from 2009 but was still, in 2022 (last year for which data is available), the fourth highest in Africa and higher than the average for upper-middle-income countries (UMICs) globally. Efforts to improve effectiveness nominally started under President Ramaphosa in 2018. Still, they were hampered by the Zuma faction's fightback and COVID-19, during which the government and the economy came to a standstill. Also, there appeared to be little accountability within the executive branch, with no apparent consequence management for poor performance. After the 2021 local government elections, political infighting at regional and metropolitan levels has also led to instability, inadequate oversight and lack of accountability as support for the ANC dropped to 46% (national average), forcing the party to enter into several unstable coalition agreements in various municipalities and cities, and a deadly scramble for access to tenders.

Government effectiveness in South Africa has been undermined by corruption, lack of transparency and a weak civil service, which have translated into declining confidence that hinders economic development. According to a 2023 report released by Statistics South Africa, the highest satisfaction rate with government services was found in those who utilised higher learning institutions (90%), whereas the lowest satisfaction related to public housing services (61%). Generally, the level of trust in government is declining.

Among Africa's eight UMICs, Mauritius, Botswana and Namibia (marginally) do better on the World Bank's measure of government effectiveness than South Africa. The latter two are valuable benchmarks, given their geographic proximity and shared levels of inequality.

Various other indices provide additional context to South Africa's low and declining score on government effectiveness. For example, South Africa's competitiveness has remained at around 60th spot (out of 63 countries surveyed) on the World Economic Forum's Global Competitive Index. The country does poorly on matters relating to government adaptability, the lack of business dynamism (an apartheid legacy) and its rigid labour market, and administrative burdens.

South Africa does relatively well when comparing economic freedom; however, its score is comparable to that in neighbouring Namibia and Botswana, which is high compared to most African countries and above most comparable UMICs globally. The Fraser Institute Index of Economic Freedom ranks South Africa at 94th globally, doing poorly on the size of its government and freedom to trade internationally but well on its legal system and protection of property rights. According to the Institute, economic freedom exists when property is acquired by individuals without force, fraud, or theft and is protected from physical invasions by others. In this framing, individuals are free to use, exchange or give their property as long as their actions do not violate the identical rights of others. In a free economy, individuals can choose, trade, cooperate with others, and compete as they see fit.

Compared to most African countries, South Africa has high levels of democracy (see sections below) reflected in its liberal constitution and bill of rights. Still, more accountability or better governance is needed. The 2023 edition of the Transparency International Corruption Perception Index ranks South Africa at 72 out of 180 countries globally following five years of decline, now comparable to Benin, Bulgaria, Ghana and Senegal, and significantly below neighbouring Botswana and Namibia, are among the top least corrupt countries in Africa. South Africa is the 12th least corrupt African country.

In response to the declining levels of government effectiveness, the cabinet adopted a national framework for the professionalisation of the public service in 2022 towards meritocracy and to insulate it from undue political interference and vested interests. However, progress is likely to falter without commensurate reform of how black economic empowerment is pursued, although recruitment and selection processes are being overhauled, along with performance management systems. These are intended for use across the public sector, and compulsory induction courses guide public sector reform, such as strengthening law enforcement agencies, judicial reform, and professionalising public service. Reforms were boosted with Project Vulindlela, a government-wide initiative launched in 2020 to accelerate the implementation of structural reform in government that would reduce input costs, lower barriers to entry and increase competition, such as removing red tape and implementing a new ownership model of state-owned enterprises, many of which had become dysfunctional. The expanded second phase scope of Operation Vulindlela, as announced by President Ramaphosa during the July 2024 opening of parliament speech, is as follows:

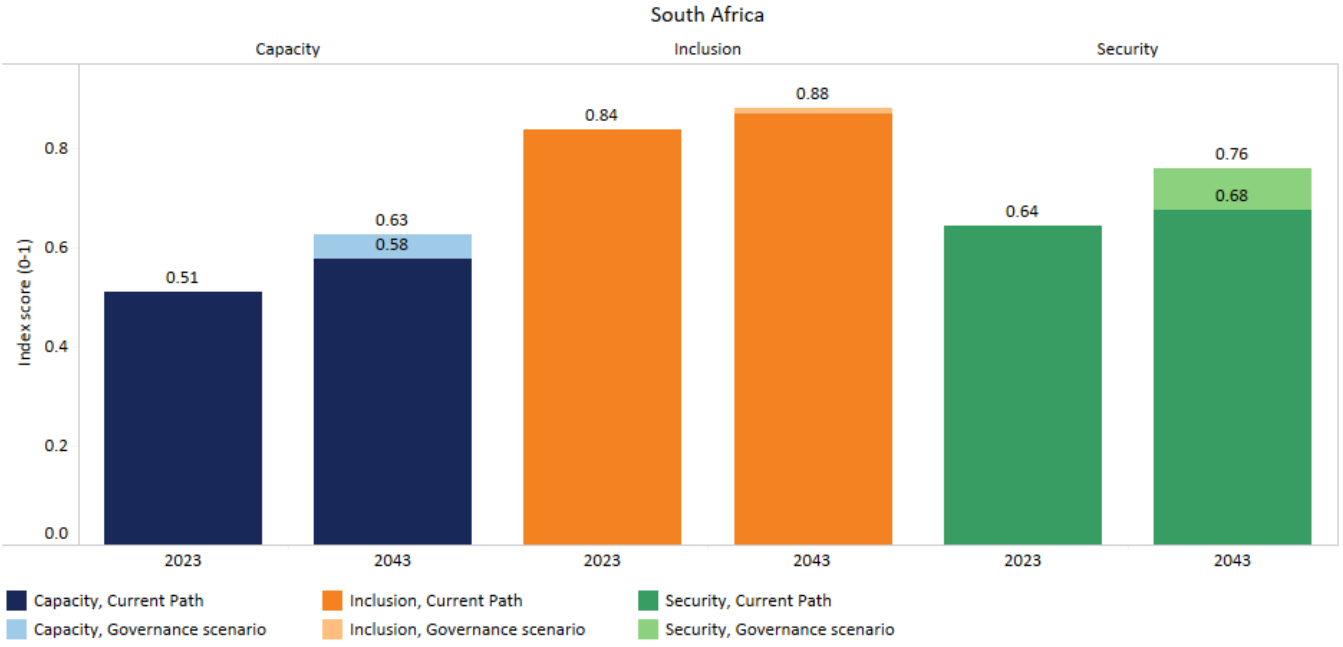
- Reforming the local government system and improving the delivery of essential services,
- Harnessing digital public infrastructure as a driver of growth and inclusion,
- Accelerating the release of public land for social housing and redirecting housing policy to enable people to find affordable homes in areas of their choice.

Later that month, the President signed the Public Procurement Bill that created an updated single framework for procuring goods and services across departments, constitutional institutions, municipalities, municipal entities, and public entities. Among its wide-ranging provisions, the Act lists persons disallowed from submitting bids, including public office

bearers, employees of Parliament or provincial legislatures, and officials or employees of public entities, constitutional institutions, municipalities and municipal entities. Like many similar efforts, additional bureaucracy is unlikely to deliver better outcomes without consequence management.

Chart 27 presents South Africa's score on government effectiveness as taken from the World Bank and the Current Path to 2043. It also shows the intervention in the Governance scenario, which improves government effectiveness in South Africa to that of Botswana by 2035, an improvement of 11% compared to the 2035 Current Path. Prior to that, government effectiveness in South Africa was comparable to that in neighbouring Namibia. Mauritius is the UMIC country in Africa that does the best, while Libya does the worst.

Chart 28: Governance dimensions in the Current Path and Governance scenario, 2023 and 2043



Source: IFs 8.26 initialising from WGI and TI data

Chart 28 presents the composite governance index for the Current Path versus Governance scenario, for 2023 and 2043.

Our modelling conceptualises governance consisting of three dimensions, stability, capacity and inclusion, allowing the user to compare governance between countries and progress across time. Each consists of an index (0 to 1) for each dimension, with higher scores indicating improved stability, more capacity, and enchanced inclusion The composite index state's progress using the average of these three indices.

Visit the theme on Governance for a full conceptualisation and details on the composition and drivers of each dimension. Better security is the result of interventions to improve South Africa's score on an internal government security index and reduced mortality from intentional injuries (i.e. murder). Better capacity follows improvements in government regulatory quality, reduced corruption, more economic freedom and higher government effectiveness (shown in Chart 27). Because South Africa already scores very high on democracy and on gender empowerment compared to upper-middle-income countries (UMICs), the interventions on both are modest. In most instances the improvements in governance take South Africa closer to that of Botswana, a neighbouring country with similar levels of inequality but higher levels of average income.

South Africa does relatively well on the combined governance index, but below expectations given levels of income. Amongst African UMICs Mauritius, Botwana and Namibia do better and Algeria, Gabon, Equatorial Guinea and Libya does worse. The paragraphs below discuss each of the three dimensions of governance with South Africa doing very poorly in security, roughly as expected on capacity and above its peers on inclusion. The interventions in the Governance scenario therefore push harder on improvements in security and capacity.

The reasons for its poor score on security is due to South Africa's high rates of violent crime, murder in particular, and a dysfunctional criminal justice system - although it is important to keep in mind that it is one of the few African states that regularly surveys and releases crime data. Among Africa's eight UMICs only Libya did worse than South Africa in the 2023 score on security risk.

Homicides serve as a useful proxy for broader violence patterns in a society and negatively impact social capital and translate into a drag on growth. According to data from the Global Burden of Disease South Africa consistently ranks amongst the ten countries with the highest homicide death rates among adult men and women. In the 2023 Global Peace Index (a composite index drawing on a variety of measures) South Africa ranked at 156 out of 163 countries.

Lack of security acts as a major deterrent to investment in South Africa. A 2018 study found that the yearly cost of violence against children alone came to nearly 5% of the GDP. In its 2023 report Safety First: The Economic Cost of Crime in South Africa, the World Bank estimated that crime costs the economy at least 10% of GDP annually, in terms of stolen property; protection costs – encompassing security and insurance; and missed economic opportunities.

The drivers of South Africa's high levels of violent crime are multidimentional and require an integrated response. High crime rates damage the economy, contribute to the misallocation and inefficient use of resources and undermine progress towards the country's development objectives. Numerous studies have been done that indicate that well-designed and implemented policies that target priority crimes, murder in particular, can yield positive results in the medium term. Tackling organised crime, which has thrived on the declining capacity of the policy and justice institutions with large impacts on economic activity could be another. All of this is achievable given appropriate leadership and prioritisation within the current budget allocations to the criminal justice system.

South Africa has less government capacity than three other UMICs in Africa, namely Namibia, Botswana, and Algeria although doing better than Mauritius, Gabon and Equatorial Guinea. Government revenue as a percent of GDP is a good measure of government capacity and stood at almost 27% in 2023, close to the average for UMICs although below neighbouring Namibia and Botswana. Government revenues is largely determined by tax rates. The tax-to-GDP ratio in South Africa was 27% in 2021, more than ten percentage points above the average for Africa. Only Morocco, Seychelles and Tunisia have higher tax-to-GDP ratios.

When it comes to inclusion, South Africa liberal constitution, independent judiciary, bill of rights, press freedom and regular free and fair elections means that it does better than any other African UMIC and ranks amongst the highest UMICs globally. On its own, high levels of inclusion do not compensate for a lack of capacity or security, although it does translate into a political system with significant legitimacy and hence with the ability to absorb and withstand high levels of social turbulence and violence. That was put to test during the July 2021 riots in KwaZulu-Natal and in Gauteng that was sparked by the brief imprisonment of former President Jacob Zuma. The riots cost the economy US$3.2 billion during which more than 300 people died and thousands were injured.

There are clear signs that South Africans are becoming disillusioned with the inability of government to deliver economic growth, jobs and reduce unemployment. For example, in the release of its most recent data-series on attitudes to democracy in Africa, Afrobarometer found that confidence in democracy in South Africa has declined more than in any other African country. From a registration rate of 80% of eligible voters in 2014, the level of registration has declined to

70% in 2024. Voter turnout has also declined with each election, to the extent that, with the 2024 elections, it stood at 58.6%. It was 74% in 2014.

At the head of a new Government of National Unity President Ramaphosa intends, again, to launch a National Dialogue ' to forge a common vision and build a comprehensive social compact with a clear programme of action to realise our aspirations for the country.' The Dialogue would advance the three strategic priorities of the GNU, namely:

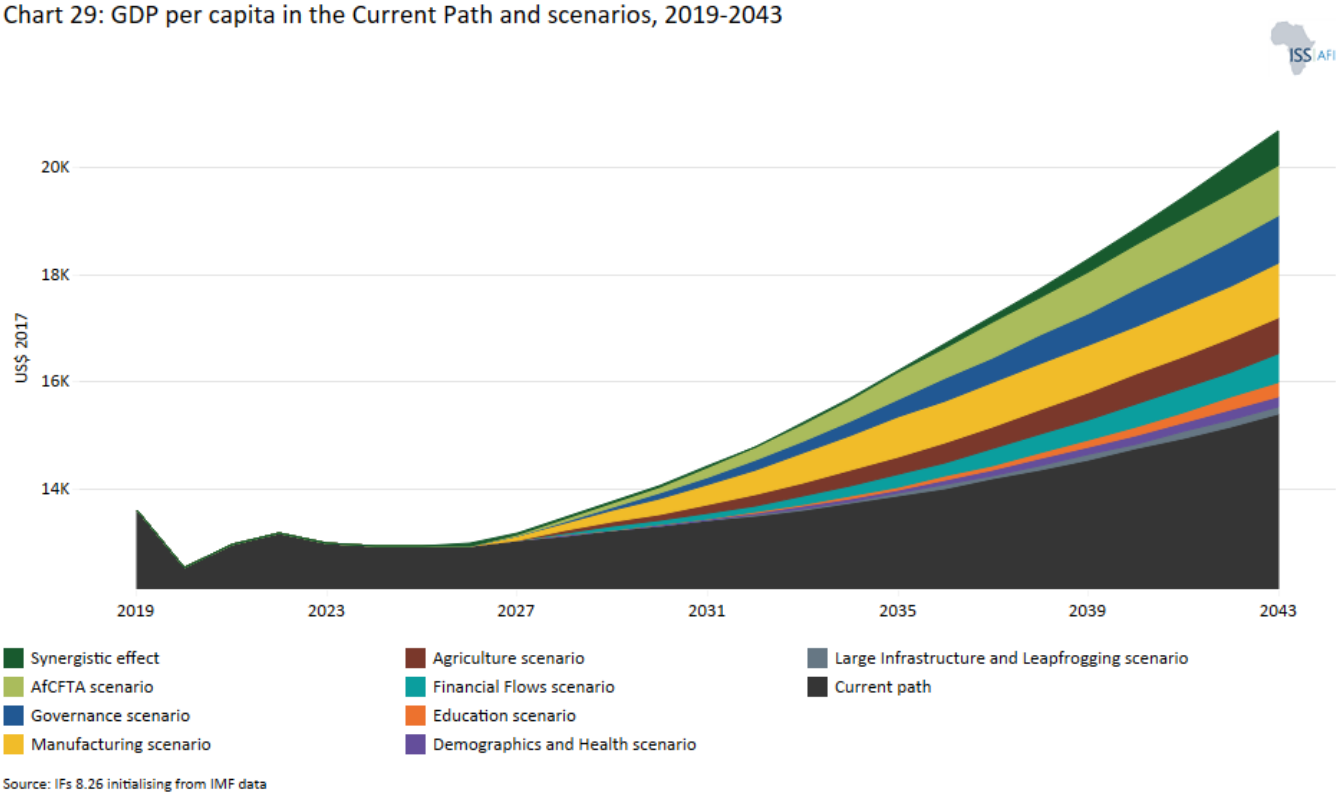
- Inclusive growth and job creation,
- Poverty reduction and reducing the high cost of living,
- Building a capable, ethical and developmental state.

To tackle crime and corruption, and improve security, the President spoke about the importance of capable, sophisticated and independent law enforcement agencies that can fight complex and organised crime using modern technology to assist crime fighting. Furthermore, these agencies must be able to employ data-driven approach to identify violent crime hotspots and inform the allocation of policing resources alongside prevention measures. The focus must be on tackling priority crimes like illegal mining, gang violence, cash-in-transit heists and the construction mafia through specialised police units. There is, however, considerable evidence of lethargy, inaction and obstruction in the pursuit of corruption and state capture within the country's criminal justice system following the extended period of state capture and malfeasance under former President Jacob Zuma that continues to hamper progress.

In the Governance scenario, governance in South Africa improves by 7% in 2043 when compared to the Current Path, overtaking the average governance index of Namibia in 2031 and halves the gap with Botswana, which has the second-highest score on the combined governance index next to Mauritius. These four countries also have the highest average scores on governance in Africa.

South Africa: Scenario Comparisons

Chart 29: GDP per capita in the Current Path and scenarios, 2019-2043



Source: IFs 8.26 initialising from IMF data

Chart 29 presents GDP per capita in the Current Path and Combined scenario plus the synergistic effect in the eight sectoral scenarios. The purchasing power parity data is from 2019 to 2043.

The Combined scenario combines all eight sectoral scenarios: Governance, Demographics and Health, Education, Large Infrastructure and Leapfrogging, Agriculture, Manufacturing and Leapfrogging, AfCFTA, and Financial Flows. The integrated nature of our modelling means that these sectoral scenarios produce a synergistic or additional effect that further improves outcomes.

In the Combined scenario, GDP per capita would be 34% above the Current Path in 2043, equivalent to an additional US$5 290 per person.

Amongst the eight sectoral scenarios the full implementation of the Manufacturing scenario has the most positive effect on GDP per capita by 2043 (an increase of US$1 000 per person or 6.5% above the Current Path), followed by the full implementation of the AfCFTA (an increase of US$950 or 6.2% above the Current Path) and Agriculture (an increase of US$690 or 4.5% above the Current Path). Because South Africa has a relatively well-developed infrastructure, the Large Infrastructure and Leapfrogging scenario has the least impact, followed by Demographics and Health scenario. Although better health outcomes and education take a longer time to manifest their impact on improved contributions to human capital are long-lasting.

After an initial period of euphoria following the historic transition from apartheid in the 1990s, South Africa has been buffeted by numerous exogenous and self-inflicted shocks that have reduced growth to the extent that GDP per capita has stagnated or steadily declined since 2013, with a brief recovery in 2018. On the Current Path, South Africa will recover to its 2013 level in 2036, implying 23 lost years. Following the May 2024 national elections and the establishment of a

Government of National Unity (GNU), hope exists for positive change. In the Combined scenario, South Africa will recover to its 2013 GDP per capita level in 2030, six years earlier than on the Current Path.

In his inauguration address following the establishment of the GNU, President Cyril Ramaphosa described it as the beginning of a new era. The GNU comprises 10 political parties, seven of which hold cabinet positions in a national administration previously dominated by the ANC. The challenge is translating the associated changes into inclusive economic growth and the political acumen to have this balancing act together.

Change to South Africa's mediocre Current Path prospects will inevitably require deliberate choices, determined implementation, leadership and some pain, but the impact of the combined efforts on incomes, extreme poverty and growth can be transformative.

The two scenarios with the most impact, Manufacturing and the full implementation of the AfCFTA are mutually supportive. The latter would boost South Africa's manufacturing trade with the region and its role as a logistics and services hub. To date, instead of an export-orientated growth model, South Africa's trade and industrial policy means that effective protection rates remain high in some sectors. The country adopts a cautious approach to trade agreements in spite of the potential to benefit its manufacturing sector, and there is an increased focus on localisation instead of upstream support to enable manufacturing. Together, these structural, environmental and policy factors increase the incentive to produce for the protected domestic market instead of incentivising companies to explore new export opportunities while raising barriers for new entrants and lowering competition for incumbent firms.

To address the inherent bias against growing its manufacuring sector through exports, South Africa urgently needs to address the high costs of investment and trading across borders; review the impact of existing industrial, localisation and sector-specific policies on export behaviour; implement a comprehensive and well-targeted export promotion and export finance framework; and update its trade policy approach to negotiations across the continent and internationally.

The National Treasury has estimated that about 35% of the growth slowdown from 2007 to 2021 can be attributed to the underperformance of network industries such as electricity and rail, with their productivity shocks having significantly impacted the rest of the economy. The government, therefore, prioritised network industries such as electricity, rail and telecommunications for specific focus during phase one of Operation Vulindlela, a joint initiative between the Presidency and National Treasury that was launched in 2020 to accelerate the implementation of structural and economic reforms to drive growth and job creation.

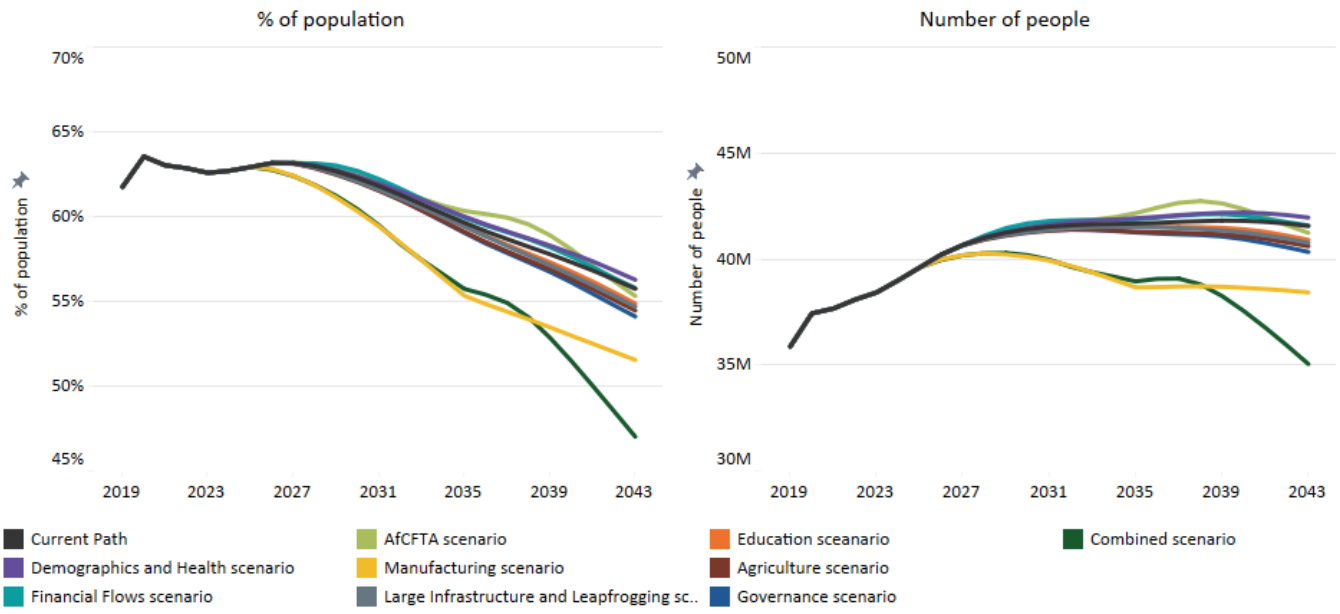
By the close of 2024, Operation Vulindlela had achieved particular success in the energy sector (through the National Energy Crisis Committee or NECOM) and logistics (through the National Logistics Crisis Committee or NLCC). The result is an end to load-shedding and near energy security whilst freight volumes, port operations, border post-processing times, and improvements in operations of the passenger rail system gain momentum. There is much more scope to have South Africa's most significant ports — ranked among the world's worst performers — run privately and to move more goods by rail rather than trucks. There is now a concerted effort to prioritise investment in infrastructure to grow regional and international trade.

The second phase of Operation Vulindlela will also focus on private sector growth, which requires business confidence to facilitate an investment climate.

Improvements in transport infrastructure and the emphasis on facilitating investment and business climate will lay the foundations for a more significant impact of free trade on economic growth. Our analysis confirms the potential that a focus on manufacturing and the AfCFTA could have on South Africa's economic development in expanding into the region due to its proximity and rapid population growth. The improvement of port and transport infrastructure, removal of tariffs

imposed on South African exports into the rest of Africa, and improved trade facilitation present South Africa with growth opportunities in manufacturing, agriculture, and services.

Chart 30: Poverty in the Current Path and scenarios, 2019-2043



Source: IFs 8.26 initialising from UNPD population prospects estimate, WDI and PovcalNet data

Chart 30 presents poverty in the Current Path and in each scenario, from 2019 to 2043. The data is for the number of people and as a percentage of the population. The user can select the number of extremely poor people or the percentage of the population.

Because South Africa has extraordinarily high levels of inequality, a relatively small informal sector and large numbers of people that are not economically active, the various scenarios have a limited impact on extreme poverty compared to most of its peers. Using the World Bank upper-middle-income monetary poverty line (US$6.85 per person), 38.4 million people (or 62.6% of the population) lived in poverty in 2023. The Current Path would see that number increase to 41.6 million people although the portion of poor people will decline to 55.7% in 2043. In the Combined scenario the number of poor people will decline to 35 million people or 47% of the population. Even in the Combined scenario the extent to which growth translates into poverty reduction is therefore very limited. In fact, in two scenarios, Financial Flows and Demographics and Health, poverty in 2043 is marginally higher than on the Current Path since South Africa's high level of inequality weakens the elasticity of poverty to economic growth. An initial unequal distribution of physical, human and financial resources makes it much more difficult for the poor to participate in and gain from economic growth. FDI inflows in the Financial Flows scenario benefits higher skilled and better educated persons and, although it accelerates growth, does not reduce poverty.

Next to the Manufacturing scenario, better governance has the most impact on poverty reduction amongst the eight sectoral scenario, followed by Agriculture. Poverty reduction in the Manfucturing scenario follows the inclusion of additional social transfers (grants) in the scenario.

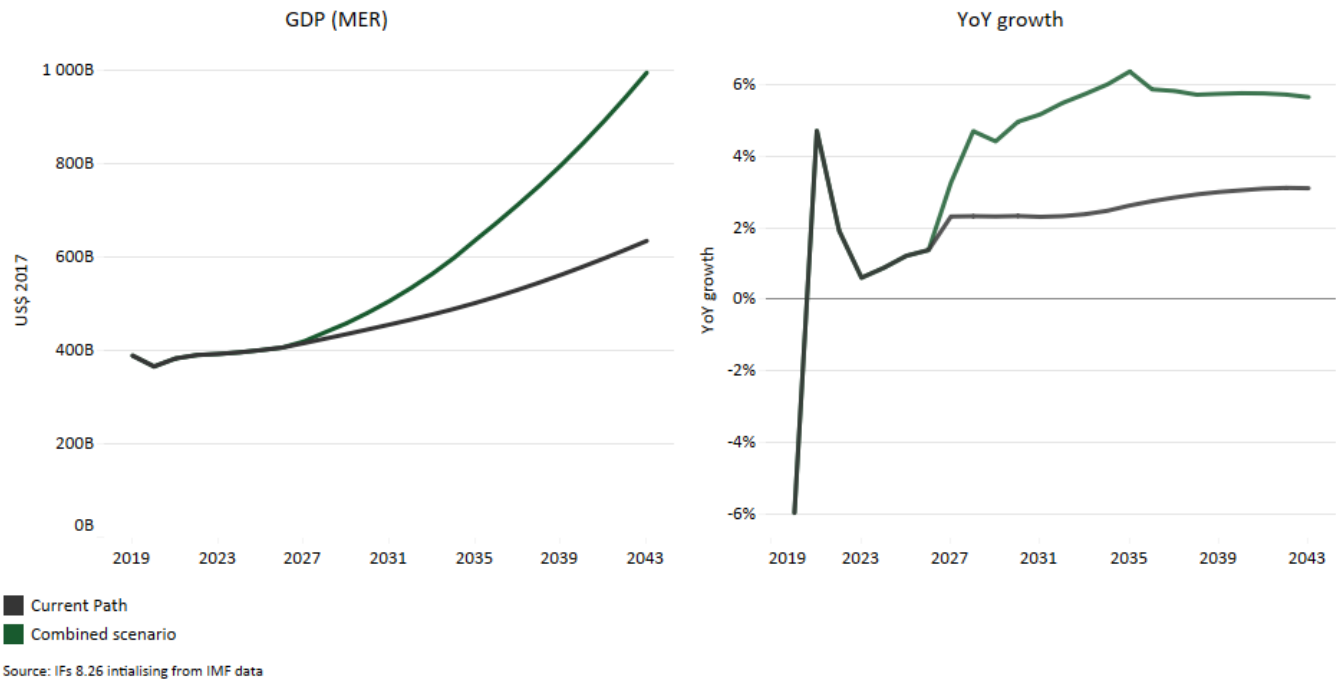
Social grants from the government already support around a third of South Africans (26 to 28 million people) and play an important role in alleviating extreme poverty and also has a positive impact on reducing inequality. The grants are

means-tested, unconditional on employment status, and well-targeted. They serve as a crucial lifeline for many South Africans, providing financial support to vulnerable groups such as the elderly, children and people with disabilities. The World Bank estimates that transfers are equivalent to about 60% of household expenditure for the poorest 20% of the population, significantly above the 7% estimated for the entire population. They are administered by the South African Social Security Agency (SASSA) and consist of several types such as:

- Older Person's Grant: For individuals aged 60 and above.
- Child Support Grant: For children whose primary caregivers are unable to provide for them.
- Care Dependency Grant: For people of any age who require full-time care due to a disability or illness.
- Disability Grant: For individuals with a severe and permanent disability.
- Foster Child Grant: For caregivers looking after children who cannot be cared for by their parents.
- Grant-in-Aid: For people living on a social grant who require additional support.
- War Veteran's Grant: For veterans who served in the South African Defence Force and various liberation armies.

Because it generally improves government efficiencies, the Governance scenario has the second largest impact on reducing poverty (next to the Manufacturing scenario) amongst the eight sectoral scenarios, reducing poverty to 54.1% (40.3 million) followed by the Agriculture and Large Infrastructure/Leapfrogging scenarios. These are still very high poverty rates and point to the need to maintain and further extend social grants as well as consideration of mass employment schemes in addition to the interventions reflected in the various sectoral scenarios. To this end various lobby groups have pushed for the introduction of a universal basic income (UBI) grant that would provide each citizen with a monthly cash payment set at or close to the upper-bound poverty line of (R1 634 in 2024) which would increase annually based on inflation.

Chart 31: GDP (MER) in the Current Path and Combined scenario, 2019-2043



Source: IFs 8.26 intialising from IMF data

Chart 31 presents GDP in the Current Path and the Combined scenario, from 2019 to 2043. The data is in US$ 2017 and at market exchange rates.

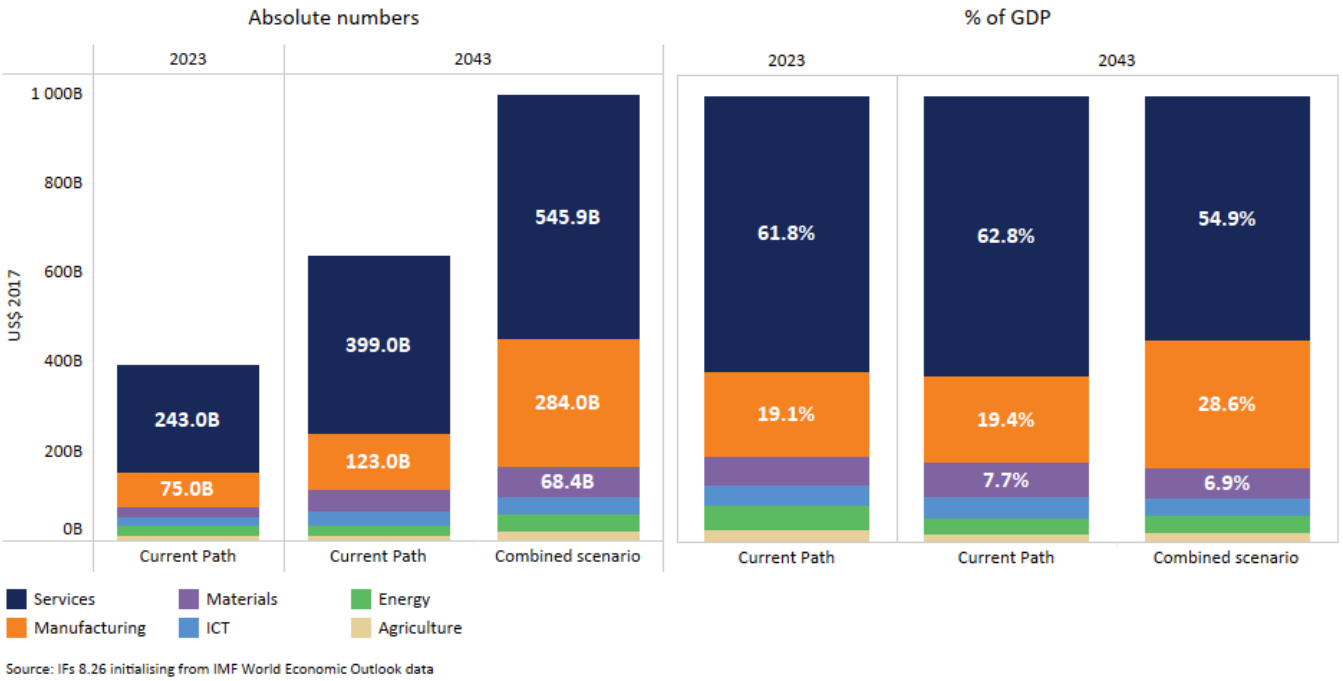
After more than a decade of slow and sometimes negative growth, South Africa's GDP stood at US$392.1 billion in 2023. On the Current Path it will increase to US$634.1 in 2043 (63% larger than in 2019). In the Combined scenario it would get to US$994 billion, 57% above the Current Path for 2043 and 153% above its size in 2019.

Instead of growing at 2.4% from 2024 to 2043, economic growth would come to almost double that in the Combined scenario, at 4.8%. These rates are a far cry from the 5.4% growth target to 2030 that was set out in the 2012 National Development Plan, but would transform South Africa - although not resolve its massive poverty, inequality or unemployment, all of which are generational challenges. The Current Path growth rate from 2024 to 2030 (the horizon of the National Development Plan) is 1.8%. It is 3% in the Combined scenario, accelerating thereafter.

Classic growth theory posits that economic growth comes from the contributions from labour, capital and technology/multifactor productivity. In our modelling, the contribution of multifactor productivity consists of four components, knowledge, physical, social and human capital. Among these components, poor human capital stands out as South Africa's greatest challenge to sustained, rapid growth, followed by social capital - the latter largely a function of its high crime and intentional injury rates. The country has a small comparative advantage in both knowledge capital, which is a net contributor to growth, and in its physical capital. The positive contribution from knowledge capital is underpinned by South Africa's relatively high levels of integration into the global economy compared to most other African economies, and the positive impact of knowledge diffusion through the larger number of trade and multinational corporations active in the country compared to other African countries. The positive impact of physical capital flows from South Africa's relatively high levels of infrastructure and basic service provision such as water and sanitation.

The Combined scenario has a large positive impact on the contribution from social capital to the extent that it contributes positively to growth, but does not fully eliminate the drag from poor human capital which is a generational challenge.

Chart 32: Value added by sector in the Current Path and Combined scenario, 2023 and 2043



Source: IFs 8.26 initialising from IMF World Economic Outlook data

Chart 32 presents the value added by sector in the Current Path and in the Combined scenario, for 2023 and 2043. The data is in US$ 2017 and as a percentage of GDP.

Our modelling provides forecasts in six sectors, agriculture, energy, materials (including mining), manufactures, services and ICTech. In 2023, the services sector contributed 62% to GDP, followed by manufactures at 19%, materials at 6.4%, energy at 5.6%, ICTech at 4.6% and agriculture at 2.4%. The Combined scenario will result in an economy that is significantly larger in 2043 (see Chart 31) largely due to the growth in the GDP contribution of manufactures above the Current Path (also from agriculture, but more modestly), while the services sector contracts compared to the Current Path, as does energy, ICTech and energy, though more modestly. In absolute terms all sectors are larger in the Combined scenario compared to the Current Path in 2043 with the largest absolute increase in the manufacturing sector which, by 2043 is 28.6% instead of 19.4% of GDP implying that the manufacuring sector will contribute an additional US$161.2 billion to the economy compared to the Current Path.

Chart 33: Informal sector in the Current Path and Combined scenario, 2019-2043

Source: IFs 8.26 initialising from Elgin and Oztunali (2008), and Schneider and Enste (2012) data

Chart 33 presents the size of the informal sector as per cent of the total economy in the Current Path and in the Combined scenario, from 2019 to 2043.

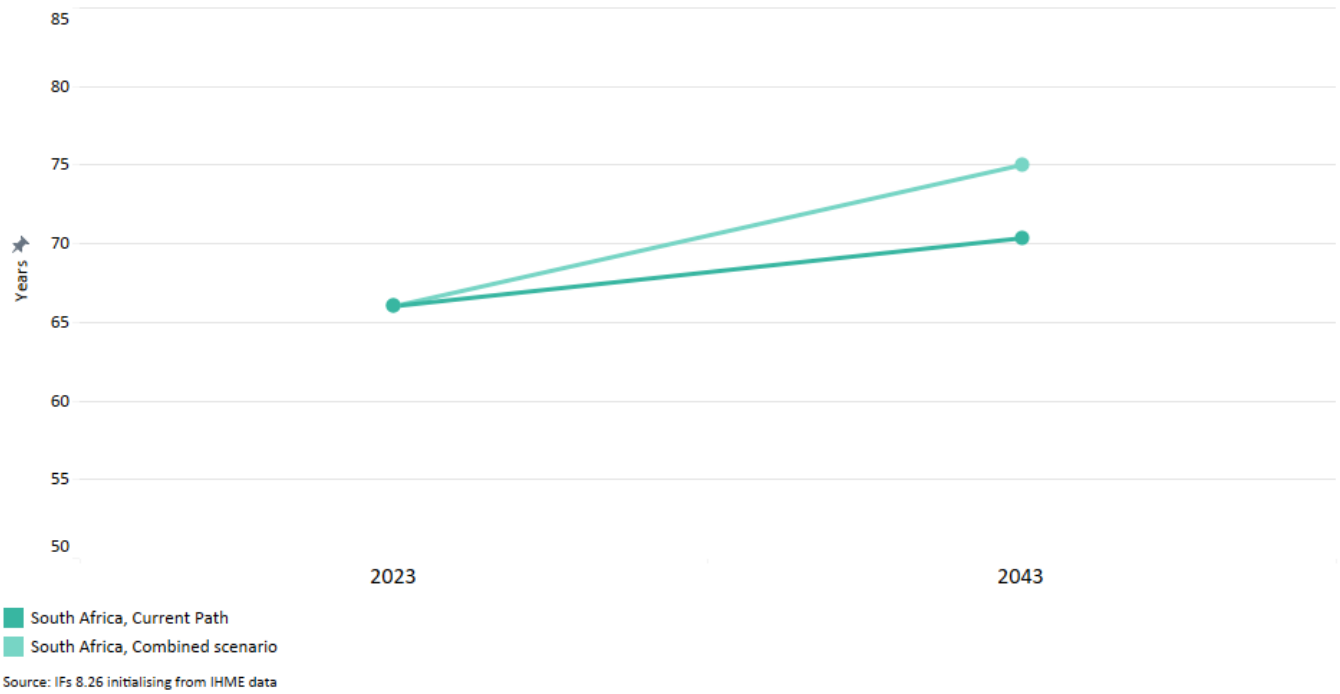
South Africa has a relatively small informal sector compared to other countries at similar levels of development. In 2023, the informal sector in South Africa contributed 13% to GDP (US$50 billion), some three percentage points below the average for upper-middle-income countries (UMICs) in Africa and comparable to Malaysia, Serbia, Brazil and Costa Rica, all of whom have higher GDP per capita than South Africa and lower levels of inequality. In the Current Path the informal sector will decline to 11.7% (US$74.4 billion) by 2043.

Because of the effect of interventions on government effectiveness, reduced corruption and better regulations, the Governance scenario reduces the informal sector most rapidly amongst the eight sectoral scenarios. In the Combined scenario the informal sector will constitute 7.1% of GDP, equivalent to US$74.4 billion.

South Africa needs to commit to growing its informal sector even as it expands employment in the formal economy. Growth in the informal sector requires the easing and simplification of regulations and permits to allow informal businesses to operate legally, improved access to finance such as microfinance and credit facilities, infrastructure development to provide electricity, water and transportation in areas with large informal sector activity, and the provision of vocational and entrepreneurial skills to empower persons active in the sector.

In addition, efforts must be made to foster market integration by promoting linkages with formal enterprises, providing market information, and supporting networking opportunities. Enhanced business support services tailored to the informal sector would also be required such as business incubators and the provision of digital tools and technologies to improve efficiencies and productivity. Because of its spatial inequality, the focus would probably have to be in townships and rural areas whilst at the same time launching efforts to improve living conditions and infrastructure in informal settlements to create a conducive business opportunity.

Chart 34: Life expectancy in the Current Path and Combined scenario, 2023 and 2043



Source: IFs 8.26 initialising from IHME data

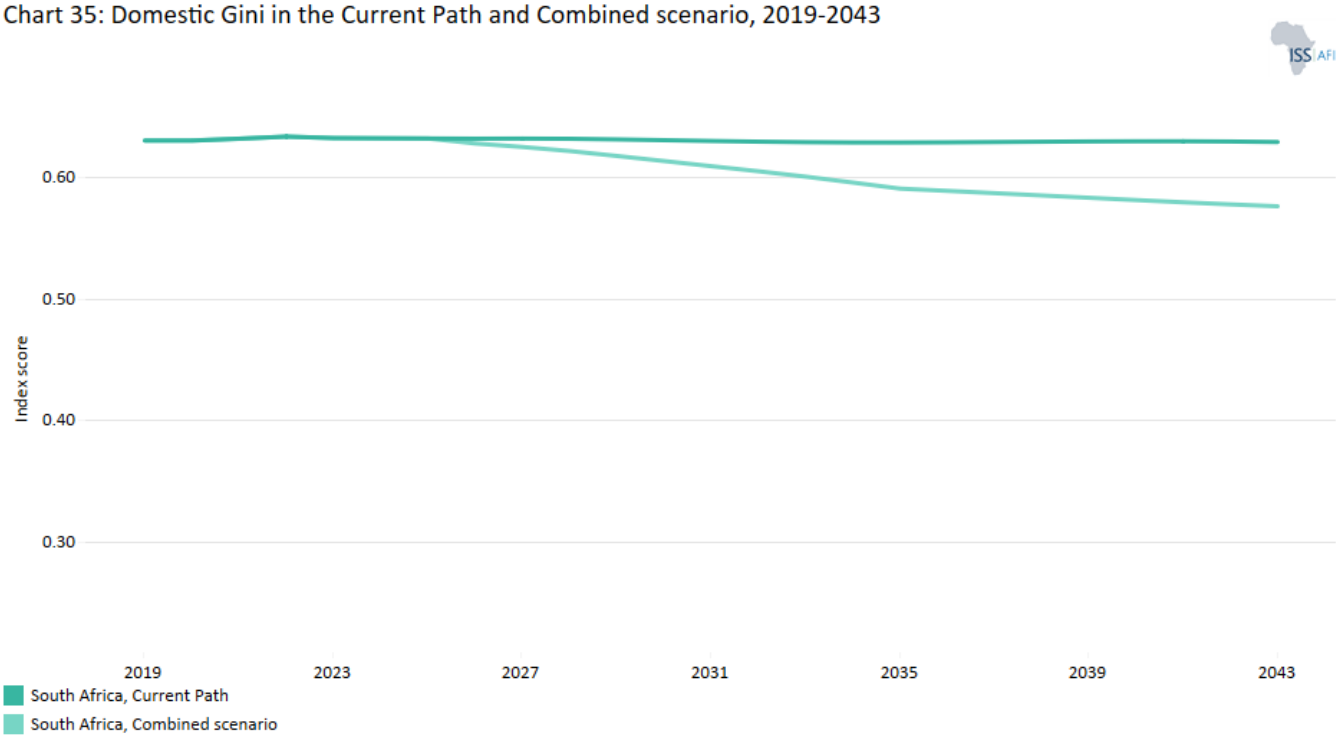
Chart 34 compares life expectancy in the Current Path with the Combined scenario for 2023 and 2043.

Life expectancy at birth is one of the best aggregate measures of health and well-being, and a powerful tool in helping to explain the huge drag that poor human capital in South Africa has on economic growth.

At the height of the HIV/AIDS scourge in 2005, life expectancy in South Africa was a mere 52 years, compared to an average of 73 years for upper-middle-income countries (UMICs) globally. South Africa's life expectancy has subsequently recovered to its previous trajectory, but in 2023 it was still 11 years below that of UMICs globally (66 years vs 77 years) in large part due to an unusually high burden of communicable diseases, in particular HIV/AIDS and tuberculosis. South Africa's life expectancy was also 1.4 years lower than the average for Africa. The Current Path is that the gap between South Africa and the average for UMICs globally will remain relatively constant to 2043. In the Combined scenario, life expectancy in South Africa improves significantly by 4.2 years above the Current Path by 2043, to 74.4 years, still five years below the average for UMICs. Female life expectancy, 6.2 years above that of males in 2023, is, by 2043, almost 6.9 years above that of males in the Current Path, but the difference is lower at 6.1 years in the Combined scenario.

Signing the Presidential Health Compact in July 2019, President Ramaphosa publicly acknowledged the crisis in South Africa's health system. The biggest obstacles to achieving improved health outcomes are a poorly functioning public healthcare system, over-servicing and inflated costs in the private healthcare system, and public debt. Better management and more competition are vital, but given poor efficiencies and high debt levels, South Africa will struggle to implement universal health coverage as envisioned in its 2017 White Paper. See the Demographics and Health scenario for context.

Chart 35: Domestic Gini in the Current Path and Combined scenario, 2019-2043



Source: IFs 8.26 initialising from WDI data

Chart 35 compares the Gini coefficient in the Current Path with the Combined scenario, from 2019 to 2043.

South Africa's status as the most unequal country globally is well-known. On the Current Path, only the Central African Republic, a war-torn, low-income country with significantly lower development indicators will relegate South Africa to second spot in 2043. In the Combined scenario, South Africa's Gini coefficient will be almost 9% lower in 2043 than the Current Path.

The most effective counter to South Africa's extraordinary high levels of inequality is undoubtedly employment in the formal sector. Even being active in the informal sector would be better than being unemployed and not economically active.

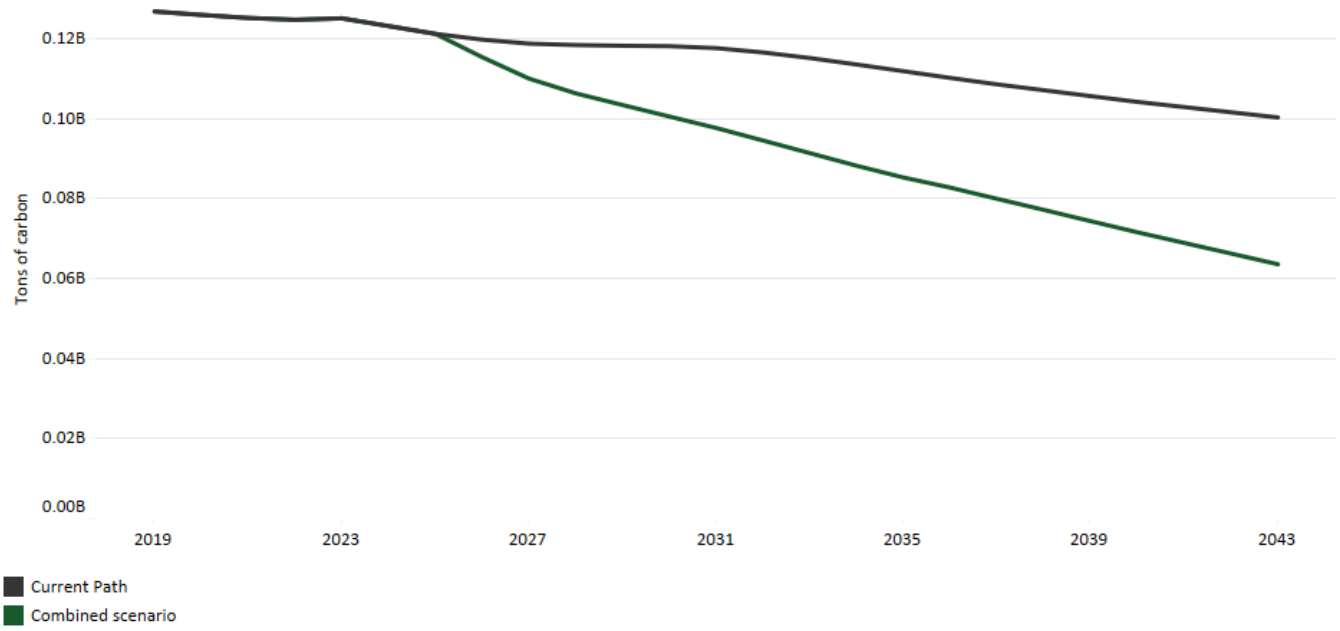
Compared to the Current Path, the Combined scenario would see the largest employment growth in the manufacturing sector, followed by services, materials, the agriculture sector and energy. Employment in the information, communications sector will decline marginally. Whereas, in 2023, 18.95 million South Africans were employed in the six sectors modelled, that number would increase to 31.2 million in the Combined scenario by 2043, more than 3 million above the Current Path. Labour force participation rates therefore improve to 64.7% in the Combined scenario compared to 56.8% in the Current Path. Here it is important to point out that much of the associated increase comes from the modelling approach applied in the Manufacturing scenario where we increased labour participation rates for men and women, reflecting policies that advance low-end manufacturing. The size of South Africa's labour force, persons who either are employed or actively seeking employment, increases significantly in the Combined scenario. In 2023 it was 24.9 million people out of a total population of 61.4 million people. In the Current Path the size of the labour force in 2043 will be 32.4 million. In the Combined scenario it will be 37.9 million. South Africa's 2043 population will number 74.4 million in the Combined scenario and about a million less in the Current Path.

Important as these improvements in the Combined scenario are, they are insufficient for a country with South Africa's high levels of unemployment, poverty and inequality. Government, the private sector and civil society would clearly have to

come together around a range of employment schemes to maintain stability sufficient to allow for growth to resolve the unemployment and inequality challenge in the long term.

Chart 36: Carbon emissions in the Current Path and Combined scenario, 2019-2043

Million tons of carbon (note, not CO2 equivalent)



Source: IFs 8.26 initialising from Carbon Dioxide Information Analysis Center data

Chart 36 compares carbon emissions in the Current Path with the Combined scenario from 2019 to 2043.

South Africa's 2021 updated Nationally Determined Contribution (NDC) articulates a detailed climate action plan. It commits to significantly reducing greenhouse gas emissions to between 350 and 420 $MtCO_2e$ by 2030. This commitment aligns with the Paris Agreement's rigorous targets to maintain global temperature increases well below two degrees Celsius, with aspirations to limit warming to 1.5 degrees Celsius.

Central to this strategy are several pivotal policy documents and frameworks. The first Adaptation Communication outlines strategies across essential sectors to effectively manage and mitigate climate impacts. Furthermore, the Climate Change Act, signed into law in July 2024, establishes a comprehensive legal framework supporting mitigation and adaptation efforts. This legislation ensures that climate actions are scientifically grounded and seamlessly integrated into national policies.

The NDC envisions a strategic transformation in energy production, as delineated in the 2019 Integrated Resource Plan (IRP). This plan advocates for a diversified energy mix, expanding gas and nuclear power capabilities, and significantly increasing renewable energy sources. The 2023 update to the IRP extends these initiatives, focusing on reducing coal dependency and bolstering investments in cleaner, sustainable energy options. This shift is crucial for achieving a balanced energy mix that supports environmental sustainability and energy security.

This transition is part of a broader "Just Energy Transition," designed to meet stringent climate goals while promoting economic and social sustainability. Emphasising a mix of various energy production types is vital for maintaining energy security alongside environmental sustainability. However, realising the NDC's ambitious targets will require an escalated commitment to renewable energy, alongside enhanced international support and technological innovation.

South Africa's 2019 National Climate Change Adaptation Strategy (NCCAS) aims to serve as an overarching legislative framework for adapting to and mitigating the effects of climate change. It is supported by the implementation of the lowemissions development and growth strategy for South Africa. South Africa has already imposed a carbon tax on emissions that gradually becomes more punitive.

Several African countries, from Zimbabwe to Ghana, have started to regulate the production and trade of carbon credits, which can be sold to companies or countries to compensate for their emissions of climate-warming gases to garner more income for the governments. Even though South Africa has the potential to produce the credits from its renewable-energy activities and the restoration of carbon-absorbing ecosystems, it is the world's 14th-biggest producer of greenhouse gases (it produced 1.3% of global emissions in 2023). The bulk of those emissions are due to the reliance on coal to produce electricity and petrochemicals from plants operated by companies, particularly Eskom and Sasol.

In his State of the Nation Address in February 2024, President Ramaphosa announced the establishment of the Climate Change Response Fund (CCRF) to bring together all spheres of government and the private sector and leverage collaborative efforts to build resilience and respond to climate change. However, the inaugural 'South African State of Climate Action Report' publication in June 2024 found that South Africa's commitments to tackling climate change and facilitating a just transition are hindered by incoherent policies, weak governance structures, and inconsistent government and other stakeholders' actions. The report was published at a time when Eskom, South Africa's state-owned energy utility, has been permitted to delay the decommissioning of the Hendrina, Camden and Grootvlei power stations to 2030, with potential implications for whether South Africa will still be able to meet its Nationally Determined Contribution target of reducing greenhouse-gas emissions to between 420 million and 350 million tons by 2030. The country has set the goal to reach net zero emissions by 2050 in its Low-Emission Development Strategy submitted in 2020.

The commitment to decommission the three plants helped South Africa to secure initial pledges of USS$8.5 billion financing for its Just Energy Transition Investment Plan (JEST) at COP26 in 2021 from an International Partners Group made up of France, Germany, the UK, the US and EU. The pledges have since increased significantly, with the Government intending to leverage that to US$98 billion to drive the required investments in the electricity grid, green hydrogen, electric vehicles, economic diversification and skills development.

The just-energy conversion is proving difficult. A first effort, funded by the World Bank at US$497 million, to convert the 1 000MW Komati coal-fired power station in the Mpumalanga province into a renewable energy generation site powered by 150MW of solar, 70MW of wind, and 150MW of battery storage was disastrous. Poor planning meant the plant increased unemployment and poverty, creating massive resentment in the surrounding area.

Coal will, however, remain the dominant source of energy production and is also essential from an employment perspective. In 2024, coal directly employed between 75 000 and 100 000 workers, constituting about 0.5% of total employment and nearly 20% of mining employment. In 2023, 95% of South Africa's energy production came from coal, declining to 66% in 2043 on the Current Path. In the Combined scenario, South Africa will still produce 21% of its energy from coal despite completing two phases of its nuclear build and aggressively ramping up renewables and gas production. As a result, various studies are underway towards more efficient and cleaner coal technologies, including a Carbon Capture Utilisation and Storage (CCUS) pilot study.

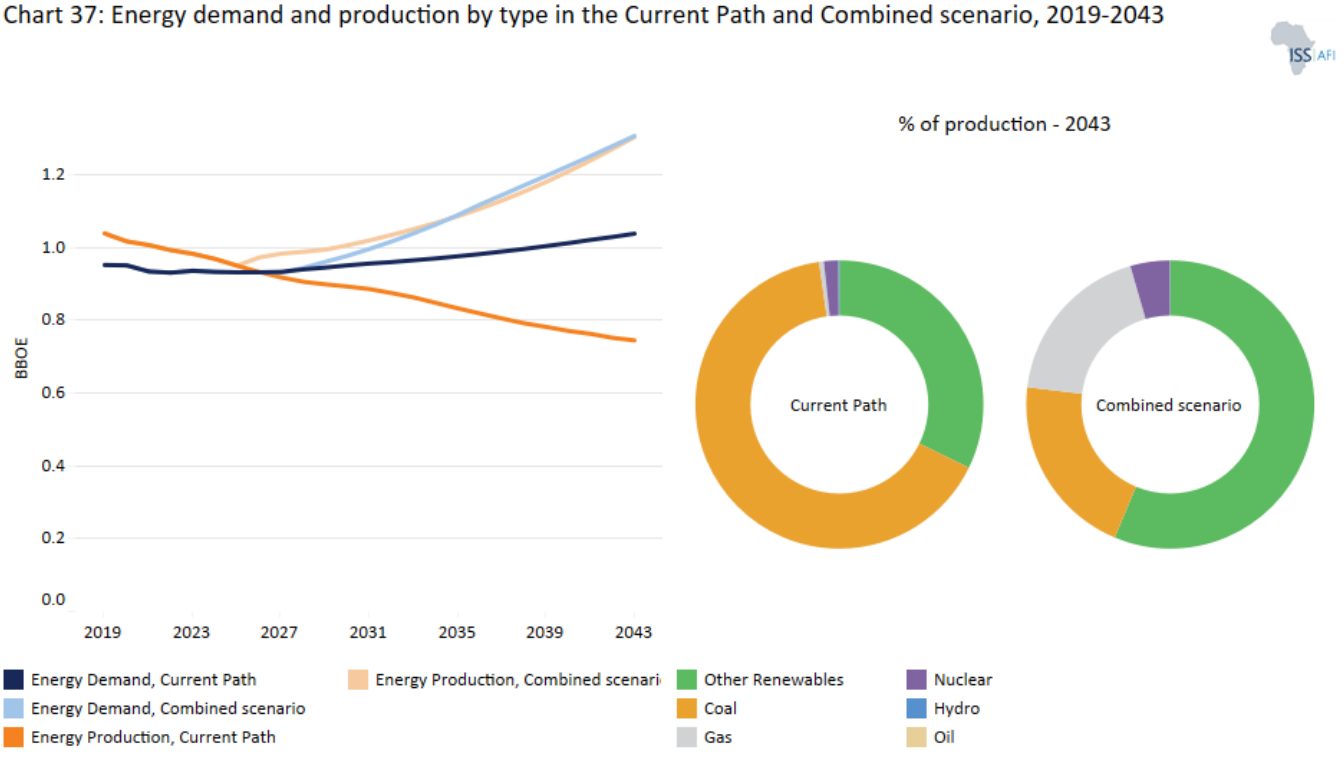
The 2024 Climate Change Act sets out a national climate change response, including mitigation and adaptation actions. The Act enables the alignment of policies to ensure South Africa's transition to a low-carbon and climate-resilient economy. It sets carbon reduction targets on a sectoral basis, guiding industries and large emitters towards net zero, with the timing aligned with the carbon tax and carbon trading regimes. All industries that emit greenhouse gases, including coal mining, must submit annual progress reports to the minister of forestry, fisheries and the environment. The act makes it an offence if a business fails to submit a mitigation plan and criminalises the failure to provide the minister with information

or to comply with emission reduction measures. It also established the Presidential Climate Commission as a statutory body. It gave powers and responsibilities to all layers of government to manage emissions targets on a sectoral and sub-sectoral basis. It sets up an adaptation resilience fund and requires the state to undertake adaptation financing and resilience.

In 2023, South Africa released 125 million tons of carbon (or 458 million tons of CO_2) from fossil fuels, which will decline to 100 million tons in 2043 (366 million tons of CO_2) as the country transitions away from coal as the primary source of electricity generation. South Africa's carbon emissions will increase most in the AfCFTA and Governance scenarios, each emitting an additional 5 million tons of carbon (18 million tons of CO_2) by 2043 compared to the Current Path. Still, the slight increase in the various sectoral scenarios will be offset by the steady replacement of coal by gas, other renewables and nuclear (reflected in the Infrastructure/Leapfrogging scenario), which reduces carbon emissions such that the emissions in the Current Path in 2043 will be similar to the Combined scenario even though the economy will be 52% larger.

The remarkable impact of more renewables, nuclear and gas that are part of the Large Infrastructure and Leapfrogging scenario means that South Africa will be the third largest emitter of carbon in Africa in both scenarios, having been overtaken by Nigeria and Egypt. In 2043, South Africa will be the 19th largest carbon emitter globally in both the Current Path and Combined scenario. It is currently at number 14.

Chart 37: Energy demand and production by type in the Current Path and Combined scenario, 2019-2043



Source: IFs 8.26 initialising from World Energy Outlook data

Chart 37 compares energy demand and production in the Current Path with the Combined scenario from 2019 to 2043.

Energy production in our modelling is done in six types, namely oil, gas, coal, hydro, nuclear and other renewables. The data is converted into billion or million barrels of oil equivalent (BBOE or MBOE) to allow for comparisons between different energy sources. South Africa has the only functioning commercial nuclear energy production plant in Africa (at Koeberg in the Western Cape) and apartheid South Africa developed a sophisticated oil from coal industry whilst still under

sanctions, today hosted by a private company, Sasol. Drawing upon its large coal reserves, South Africa exports significant amounts of coal, which has traditionally made it a nett energy exporter, whilst importing growing amounts of refined petroleum products.

On the Current Path, South Africa's energy imports exceed exports by value as from 2027, meaning that the country is becoming increasingly energy insecure and the gap is set to increase over time. Ongoing reliance on coal for the production of electricity and for exports run counter to South Africa's commitments in terms of global carbon reductions such as those under the Paris agreement. The large reliance on coal for domestic energy production also makes South Africa vulnerable to efforts by others, such as the European Union's Carbon Border Adjustment Mechanism (CBAM) that will tax goods entering the EU using (cheap) fossil fuels that may compete with its more expensive but less carbon intensive domestic production.

Against this background poor planning has led to ongoing electricity shortages in South Africa that have lasted more than a decade before easing in 2024. In recent years the government started to publish and regularly update an Integrated Resource Plan (IRP) to ensure security of electricity supply and balance it with demand whilst considering the environment and cost. Coming from very high levels of carbon emissions (due to its current reliance on coal for most of its electricity generation) means that South Africa has significant potential to reduce emissions as it envisions large changes to its energy mix but it also has to increase energy production to account for the increase in energy demand.

In 2023, coal contributed 95% of South Africa's energy production, followed by 2% each from nuclear and other renewables and 0.7% from gas. The contribution from hydro is negligible. As a result of its large dependence on coal, South Africa is the largest emitter of carbon in Africa and the 14th largest globally (see Chart 36) but government has had to balance the ongoing electricity shortages (and the associated need to keep more coal-fired power stations in service) with its commitments to reduce carbon emissions as set out in its updated Nationally Determined Contribution (NDC) discussed earlier. To that end it returned the Camden coal-fired station to service and delayed the closer of two others. Coal will remain important in South Africa's energy mix for the foreseeable future even as the country pivots to renewables, gas and nuclear.

Gas is important for South Africa particularly as Sasol, which imports natural gas from its declining Pande and Temane fields in Mozambique but will stop supplying local companies with gas starting June 2026 as reserves deplete. South Africa has auctioned exploration blocks for shale gas, with a focus on the Orange Basin and the Karoo region but legal challenges and environmental concerns have constrained exploration, such as halting Shell's exploration for gas in 2024. Later that year Shell announced that it would shift its attention to the lucrative Orange River basin on the west coast while it, Total and others were exiting the gas discoveries off the South coast of Mossel Bay that had yielded two major discoveries, Brulpadda and Luiperd.

In the Combined scenario other renewables will account for 56% of South Africa's energy production, significantly more than coal at 21%. Gas will account for 19% and 4.4% will come from nuclear once the additional nuclear build contained in the 2023 IRP and additional gas production is included.

Whereas South Africa's total energy production slowly declines across the forecast horizon in the Current Path it increases by 75% to 1.3 BBOE in the 2043 compared to the Current Path of 744 MBOE. In 2023 energy production in South Africa was at 982 MBOE. Demand increases by 26% above the Current Path in the Combined scenario (1.3 BBOE instead of 1 BBOE). In 2023 demand was at 936 MBOE.

Because of its large coal reserves, South Africa has traditionally been a large energy exporter (it exports about a quarter of total production) but energy export earnings will fall below energy import costs as from 2028. Thereafter South Africa will experience a growing gap such that, by 2043, the country would face a net import/export gap of almost US$15 billion.

Already South Africa's 2023 energy imports (mostly refined petroleum) amounted to US$9 billion, set to increase to US$21.4 billion on the Current Path by 2043. In 2023 South Africa's energy exports, mostly coal, amounted to US$11 billion, reflecting the country's position as a net exporter of energy, earning large amounts of foreign exchange in the process. South Africa could, should the international market exist, continue in that role, although its coal exports are declining. More nuclear, gas, and renewable production, therefore, has the potential to slow the anticipated decline in South Africa's energy export earnings. Instead of using coal for domestic energy production, the country could export more of it as production shifts to other sources of energy. Increased coal exports would undermine South Africa's contribution to carbon reductions globally. The market for coal exports will likely decline if coal-importing countries stick to their carbon emission targets. The Infrastructure and Leapfrogging scenario (where we model changes to energy) therefore includes a reduction in energy exports that is also included in the Combined scenario. As a result, instead of earning US$6.7 bn from energy exports in the Current Path, South Africa will only earn US$490 million in the Combined scenario.

Chart 38: Recommendations

Recommendations

- South Africa is awash with plans and strategies. What is lacking is **leadership, accountability and implementation. Stabilise and professionalise municipal, provincial and national government.**
- Improve employment intensity, including a **more flexible labour market**
- Promote trade and investment, particularly into Africa. **Pursue an export-led growth strategy.**
- Invest in human capital: **Prioritize education reforms and healthcare improvements** for a skilled and healthy workforce fit for the 21st century.
- Unlock investment in the **mining** sector, support **tourism** and support **light manufacturing** to create employment - our largest challenge.
- **Land reform** in the former homelands with appropriate infrastructure and financial support can unlock a revolution in agricultural production.
- Facilitate the **growth of the informal sector**
- **Climate-proof** all new investments, ensure exposure to natural hazards is reduced and addressed and invest in **renewables, gas and nuclear.**
- Make South Africa **safe** for citizens, investors and tourists through leadership, management and prioritsation in the criminal justice system.
- Ensure the **rule of law**, which is important for stability and order, protection of rights, economic development, social justice, accountability, and democracy.
- Pursue social inclusion by **class** instead of race-based policies - that address inequality and promote opportunities for all.

Chart 38 summarizes the policy recommendations.

South Africa is awash with plans and strategies - but lags when implementing and enforcing the mounds of compacts, agreements and statements of intent. At the University of Johannesburg on 26 July 2024, Deputy President Paul Mashatile hit the nail on the head: 'I firmly believe that our nation possesses sound policies, yet we struggle with their execution due to inter, among other things, a deficiency in accountability. ... To deliver results, we must invest in preparation, devise a workable plan and be more meticulous in our implementation.' The responsibility for these improvements lies, in the first

instance, at the door of the country's political leadership. Thus, when the Johannesburg Centre for Development and Enterprise published a series of reports in 2024 reflecting national priorities for growth, it started with the need to reorganise the Presidency and the cabinet.

South Africa needs accountable and competent leadership pursuing evidence-based policies that will allow the South African economy to create jobs and eventually reduce inequality. It is only possible to reduce unemployment and inequality with an economy that grows rapidly and inclusively. Even in the Combined scenario, unemployment and inequality are likely to remain hallmarks of the country for the next generation despite the 17% improvement in employment compared to the Current Path forecast for 2043 and the 8% reduction in inequality, using Gini. More jobs require improvements to employment intensity, implying a more flexible labour market, actively working towards a more significant and dynamic informal sector, a partnership with the private sector to facilitate opportunities such as with growth in low-end manufacturing and for South Africans to do everything possible to unlock domestic and foreign investment. It also implies dealing with the problem of excessive market power - the concentration of ownership and control, inadequate restraints on anti-competitive trade policies, and restrictions on full and free participation in the economy.

Efforts to improve employment will succeed only if South Africa provides a clear and stable macroeconomic framework, including keeping inflation low while ensuring that public finances are sustainable. The result will be increased business confidence, better productivity and higher levels of foreign direct investment (FDI). To this end, the country must improve its low credit risk rating by agencies such as Standard & Poor, Moody's and Fitch and exit from its grey-listing categorisation by the Financial Action Task Force (FATF). Sustainable public finances require action to restore the balance sheets of state companies and clarity with respect to network industries which will require that the country's elite and the public sector reign in consumption and raise their investment contribution such as through higher savings. Because South Africa pursues a developmental economic model, the state's effectiveness is critical for the country's well-being. Most state institutions suffer from a massive deficit of competency, skills, and ethics, pointing to the need for a hard-nosed approach to the hundreds of state-owned enterprises, many of which could be closed or privatised.

South Africa must actively pursue an export-led growth path focussing on expanding its manufacturing sector, particularly with an eye to the growing African market, and invest in the benefits from the implementation of the AfCFTA. In addition to active support to reduce input costs, a manufacturing export-led growth path includes reducing the high costs of investment and trading across regional borders; reviewing the impact of existing industrial, localisation and sector-specific policies on export behaviour; implementing a comprehensive and well-targeted export promotion and export finance framework; and updating its trade policy approach to this effect. A first step in this regard would be to exploit the opportunities with the Pan-African Payment and Settlement System (PAPSS), which enables companies to transact in any African currency without needing a third-party currency like the US dollar. The second step must be to fix the connecting infrastructure and remove non-tariff barriers.

Amongst our eight sectoral scenarios, the growth of the manufacturing sector promises the most employment creation. Low levels of employment is South Africa's key challenge since it drives extreme inequality, poverty and disempowers. In the words of Professor Anthony Black, the leading proponent of labour-intensive light manufacturing, South Africa has the ingredients: a large pool of unskilled and semi-skilled labour, an advanced financial system, highly developed infrastructure and capable domestic firms that could attract large-scale domestic and foreign investment. Black lists three critical actions:

- Switch incentives to support employment, both directly and indirectly, such as through incentives for training rather than capital investment and energy.

- Review the regulations (including labour regulations) that hinder small manufacturing firms, particularly the extension of National Bargaining Council determinations to non-parties.

- Experiment using one or more special economic zones as light manufacturing zones.

Poor human capital (primarily due to the lingering effects of HIV/AIDS but also reflecting poor education returns and a weak healthcare sector) is the most significant structural constraint on South Africa's long-term growth. Fixing South Africa's poor human capital contribution to growth is a long-term undertaking, with appropriate education making the most significant contribution. South Africa's Human Resource Development Council has regularly revised and released a Human Resource Development Strategy (HDRS-SA). The most recent version was published in 2022 with a vision to 2030. The Master Skills Plan is then used by different sectors, industries, employers and Sector Education and Training Authorities (SETAs), serving as the implementation plan of the reconceptualised HRDS-SA.

During 2022 and 2023, the Centre for Development and Enterprise (CDE) set out a comprehensive analysis of the challenges and the reforms required in education. The key recommendations in the CDE's reports focus on five areas for action to improve South Africa's education outcomes:

- Tackling corruption and State Capture in education by prohibiting cadre deployment and introducing measures that remove the South African Democratic Teachers Union's (Sadtu's) stranglehold on education departments.

- Raising accountability levels by bringing back the Annual National Assessment (ANA) tests for grades 1-9, reinvigorating an independent National Education Evaluation and Development Unit (NEEDU), and giving principals more power over the appointment and management of teachers in their schools.

- Improve teacher performance by introducing higher teacher training standards, providing more effective support for existing teachers, and urgently recruiting skilled foreign teachers in areas of shortage.

- Installing fresh leadership in the public education system.

- Setting realistic national and provincial performance goals.

Looking to 2043, South Africa must also aspire to much better health outcomes if it is to change its current mediocre long-term growth forecast. Much work has been done to explore universal health coverage (UHC) in South Africa, although the focus in recent years has been on financing reform to the detriment of other issues. South Africa must pay attention to all six of the World Health Organization (WHO) 'building blocks' of the health system (financing, leadership/governance, service delivery, health workforce, health information systems, medical products and technology). Instead, the singular focus on National Health Insurance has stalled efforts to carry out the other reforms required to build and strengthen the health system and contributed to the neglect and deterioration of the overall health system. The necessary reforms include the need to review and equitably spread public resources across provinces, districts and levels of care, end corruption and irregular spending in the public sector, establish and roll out a national health information system and implement the recommendations in the private health care system as reflected in the 2019 Health Market Inquiry report.

Amongst the labour-intensive sectors, mining was historically the most important (note that in our modelling, mining is part of the materials sector). In 1980, mining contributed around 21% to GDP. It peaked at providing 760 000 jobs a few years later, mainly on the back of South Africa's enormous gold mining industry, which was its primary mining product. By 2023, that number had declined to 6.2% of GDP, and employment stood at 477 000 persons. Mining is particularly important in the poverty-stricken North West, Limpopo, Mpumalanga and the Northern Cape provinces. The industry is export-oriented due to the small domestic demand for most commodities, and it still has significant potential for the future. South Africa has the world's largest known reserves of gold, coal, platinum group metals (PGM), chrome ore and manganese ore and the second-largest reserves of zirconium, vanadium, and titanium.

Mining is tightly woven into the fabric of South Africa's history and provided the stepping stone upon which its industrial development occurred. Still, it has decayed in recent years due to government inefficiencies that have hobbled exploration, plodding progress in rolling out a new mining cadastre, now scheduled for completion in mid-2025. As a result, there is no pipeline for new projects (although some progress has been made with the establishment of an exploration fund), and the sector is subject to numerous and expensive social responsibility obligations and suffers the effects of organised crime syndicates. It was therefore unsurprising that, in 2023, Canada's Fraser Institute once again ranked South Africa near the bottom of its global mining survey, at number 57 (out of 62 jurisdictions assessed).

South Africa needs a coherent, efficient and stable regulatory environment for its mining sector that encourages exploration investments through transparent and expedited processes. This would lead to constructing new mines and expanding existing operations for longer lives and sustainable jobs.

South Africa urgently needs a determined effort to grow the agricultural sector, which our analysis indicates has significant potential. Growth in the agricultural sector is often more labour-intensive than other sectors, although much of that is created in agro-processing. Climate change will steadily impact the Western Cape, currently the province with the most significant agricultural sector, in terms of sales of goods and services, salaries and wages, and employment. The Eastern Cape province has the most potential where large productivity increases can be achieved with a transition away from subsistence agriculture and fixing poor rural economic infrastructure, such as roads and storage facilities, that have degraded, whilst the limited irrigation infrastructure is dilapidated. Some of the policies that could improve yields is to create a consolidated fund to crowd in resources from various government initiatives, private sector capital and donor partners to finance rural infrastructure and strengthen climate-smart agricultural practices.

Sustained change in agricultural yields will only come once South Africa grasps the nettle to move towards individual title holdings and steps away from the former homeland's legacy system of communal land ownership. Since most land here is registered in the state's name, which then holds this land in trust on behalf of the people who use and occupy it, reform is possible, although politically fraught. Meanwhile, South Africa needs deliberate government support and leveraging of the private sector, including the determined implementation of the Agricultural and Agro-Processing Master Plan (AAMP) adopted by the Department of Agriculture, Land Reform and Rural Development (DALRRD) in 2022.

Another sector with significant economic and employment potential is tourism. South Africa is already an international tourist destination, and with a total contribution of 8.2% to GDP in 2023, the sector contributes more to South Africa's GDP than mining, transport, and construction. It employed 1.46 million people based on 8.5 million international tourist arrivals and 38 million domestic trips that year. Annual growth is robust, and with its natural beauty and vast open spaces, South Africa has much to offer once it enables easier visa access, improves safety for tourists and invests in welcoming foreigners to the country. The 2024 GNU has now set a target to reach 15 million arrivals by 2030. Like all other sectors, there are many plans and strategies, including a Tourism Sector Masterplan and a National Tourism Sector Strategy, the latter for 2016-2026.

Eventually, rapid growth, low-end manufacturing, and growth in tourism, mining and agriculture will require additional measures to soak up unemployment, particularly by growing the informal sector. In addition to public education, three critical actions are to:

- Amend municipal by-laws to allow an expansion of informal activity and informal employment.
- Improve market access for informal enterprises.
- Prioritise regulatory reform to address regulatory barriers and exclusion for the informal economy.

South Africa needs to speed up the transition of its energy sector from coal to renewables. Solar, wind, other renewables

and nuclear must eventually become the core of the country's energy strategy, utilising modern technology such as intelligent energy management whilst investing in energy storage. Still, given the current dependence on coal, it is set to remain an essential part of South Africa's energy mix, contributing 43% of total energy production in 2043, down from 95% in 2023. The country already introduced a carbon tax in 2019. Still, more is required to create an environment that supports rapid decarbonisation and provides clear incentives for green investments, including providing subsidies for green technologies and penalising carbon-intensive practices. The imperatives are particularly evident when considering the potential impact of the EU's Carbon Border Adjustment Mechanism (CBAM). Projections released in 2024 indicate the costs for steel and iron could rise by 20% and up to 225% for chemicals like ammonia. Our analysis also indicates that the demand gap that would be left by aggressive reductions with coal generation would indicate a need for gas, which does better than coal or oil in terms of carbon emissions but is not ideal. To that end the country should join the Global Methane Pledge under which more than 100 countries have promised to reduce their methane gas emissions by 30% by 2030 as well as join the Extractive Industries Transparency Initiative which promotes open and accountable management of oil, gas and minerals.

South Africa will not prosper if it does not turn around the rule of law and public safety by improving state security planning and co-ordination, professionalising the police, starting with the rejuvenation of its top management level, developing location- and context-specific, violence-reduction strategies, to be implemented by dedicated role-players, and fully supports the independence and capacity of the judiciary to hold criminals accountable.

Finally, given its divisive history of oppression and exploitation, the lack of national coherence on the future is a massive problem in South Africa, reflected in its racially determined politics and extreme levels of inequality. The country needs a government committed to an inclusive multi-racial vision and a forward-looking leadership ethos - a shift to a class-based rather than a race-based analysis that champions the cause of all poor and unemployed people (the vast majority of whom are black) and the advancement of investment and entrepreneurship of all South Africans while maintaining a focus on interventions that assist the previously disadvantaged groupings. South Africa needs to steadily shift its focus to empowerment and away from hand-outs where possible. None of this negates the importance of measures to address the legacy of apartheid - it is instead how all of society can be mobilised to that end that needs to change.

Endnotes

1. For example the Quarterly Labour Force Statistics estimated that the second quarter in 2024 is that informal sector employment stands at 12% of the labour force, and employment is increasing. The World Bank informality database puts the size of the informal sector at 22.7% and 28.8% of GDP in 2020, and employment at 31.5% of total employment in 2020.
2. BFAP Baseline. An agricultural outlook for the period 2024-2033
3. Because the Infrastructure and Leapfrogging scenario includes reductions in energy exports, largely coal, we have removed the energy export adjustment for South Africa in the AfCFTA scenario.

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