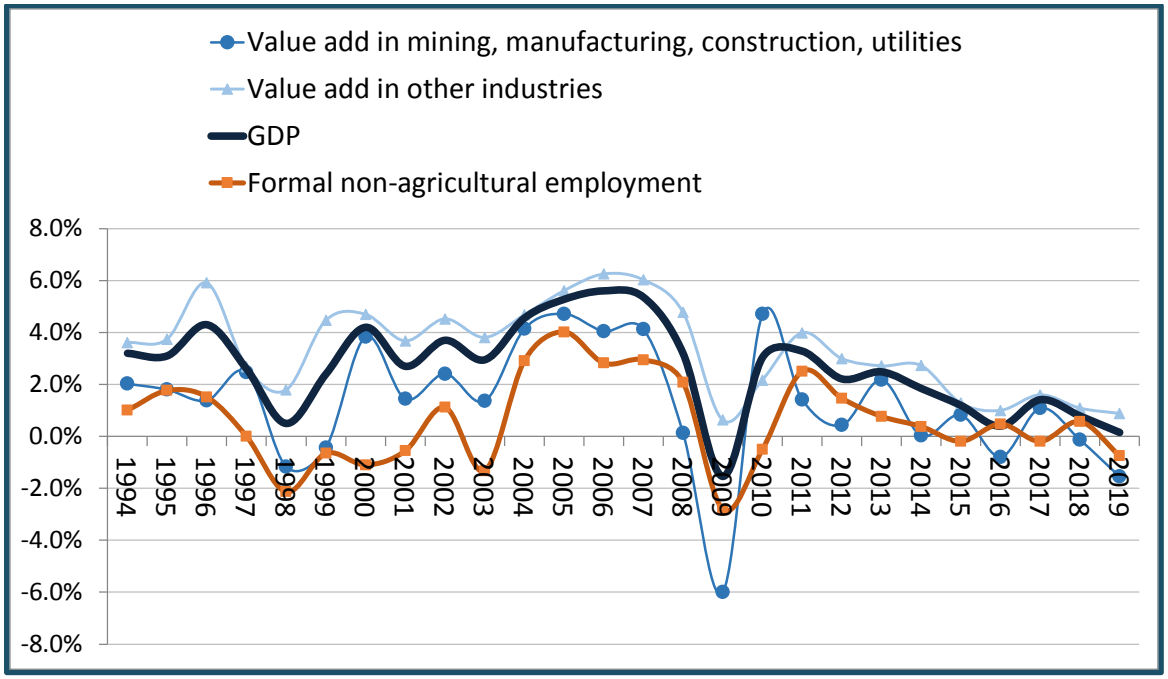
Trends in GDP growth

GDP growth in 2019, at 0.2%, was the lowest since the global financial crisis in 2008/9. The economy reportedly contracted in the last two quarters of the year as well as the first quarter. The slowdown reflects a combination of demand-side factors, resulting from slower global growth and a pro-cyclical (although far short of austerity) fiscal and monetary stance, combined with the supply-side drag of Eskom loadshedding and increasingly harsh and frequent droughts as the climate crisis intensifies.

As Graph 1 shows, GDP growth has slowed since the international commodity boom ended in 2011. In 2019, it reached the lowest level since the 2008/9 global financial crisis. Formal employment growth largely paralleled changes in the GDP. Growth in manufacturing, mining, construction and utilities was consistently lower and more erratic than the rest of the economy. Agriculture followed a similar pattern but has become more volatile in recent years due to recurrent droughts as the climate crisis deepens.

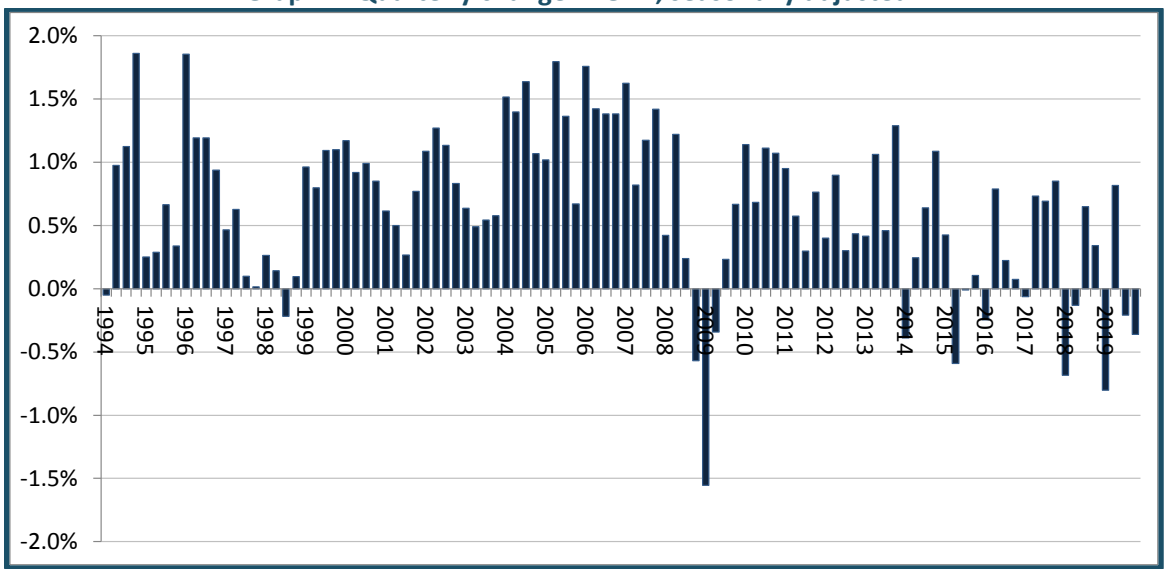
Graph 1. Growth in the GDP, overall and by sector, and in formal non-agricultural employment, 1994 to 2019



Source: Calculated from, for GDP, Statistics South Africa. GDP data. Quarterly and Regional Fourth Quarter 2019. Excel spreadsheet downloaded in March 2020; for employment, South African Reserve Bank. Online download facility. Interactive dataset. Downloaded in March 2020.

Since 2015 volatility in GDP growth has grown, especially from 2015. In 2019, the GDP contracted in three quarters, with a decline of 0.6% over the second half of the year denoting a technical recession. As noted in earlier issues of this Bulletin, the more erratic growth appears in part to reflect difficulties with the seasonal adjustment from 2014, so that a contraction was reported in every first quarter since then. The recession in the second half of 2019, in contrast, does not follow a seasonal pattern.

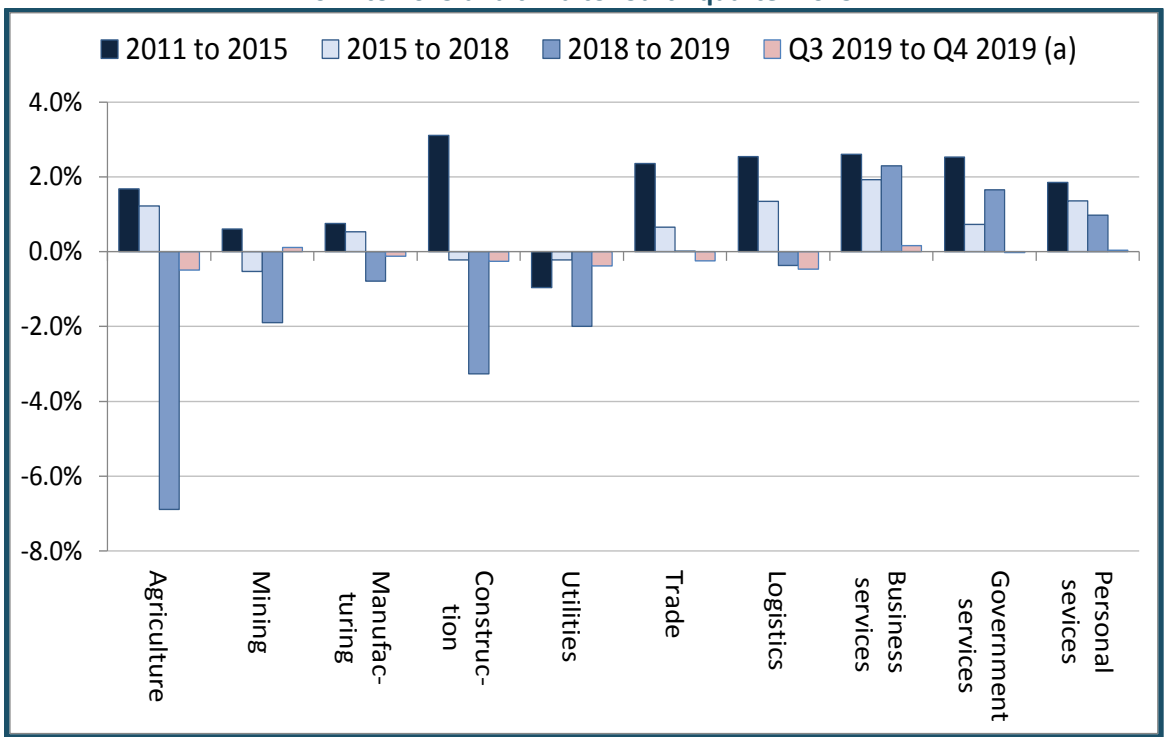
Graph 2. Quarterly change in GDP, seasonally adjusted



Source: Statistics South Africa. GDP quarterly figures. Excel spreadsheet downloaded www.statssa.gov.za March 2020.

Every sector in the real economy declined in 2019, with growth coming exclusively from services, especially business services. In 2019, the sharpest decline in output was in agriculture, but construction, utilities and mining have all shrunk since 2015. By comparison, the 2019 fall in manufacturing, at 0.8%, was relatively modest.

Graph 3. Growth rates by sector, annual averages from 2011 to 2019 and third to fourth quarter 2019

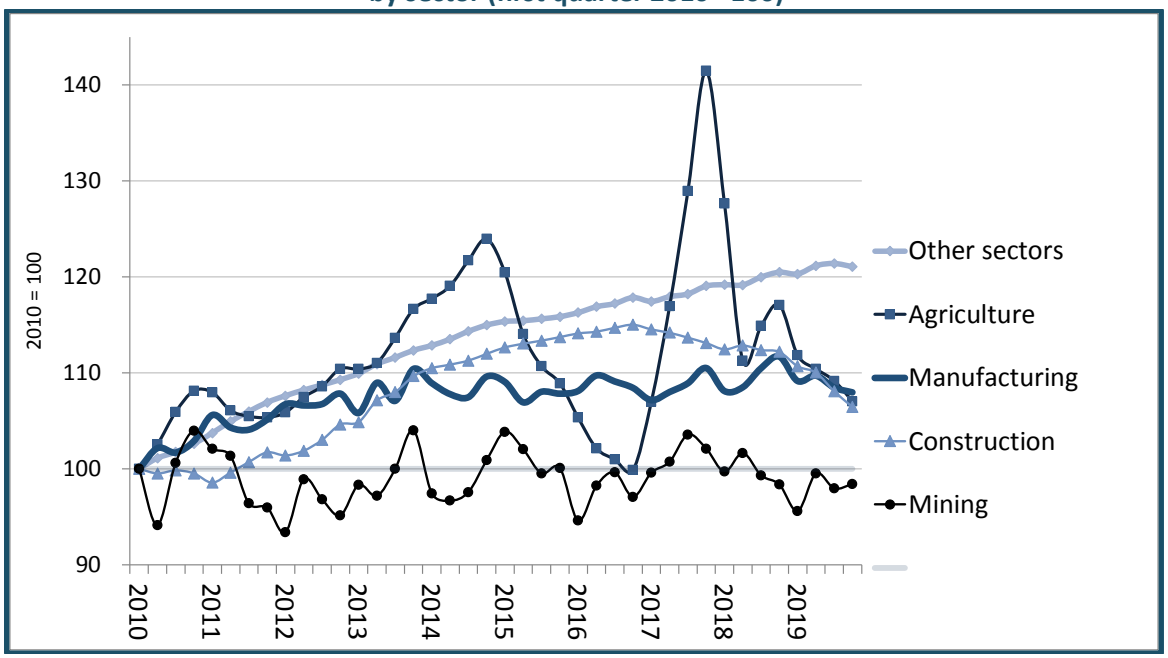


Note: (a) Seasonally adjusted. *Source:* Statistics South Africa. Gross Domestic Product (Quarterly)(2019Q4). Excel spreadsheet downloaded from www.statssa.gov.za in March 2020.

Graph 4 shows the steady decline in construction over the past three years, and underscores the extraordinary volatility in agricultural production. In contrast, manufacturing and mining have seen fluctuating value add but virtually no long-term growth since the end of the commodity boom.

The rest of the economy has grown fairly consistently but at a decreasing rate. In these circumstances, the 0.1% downturn in services and retail in the second half of 2019 meant the economy as a whole contracted.

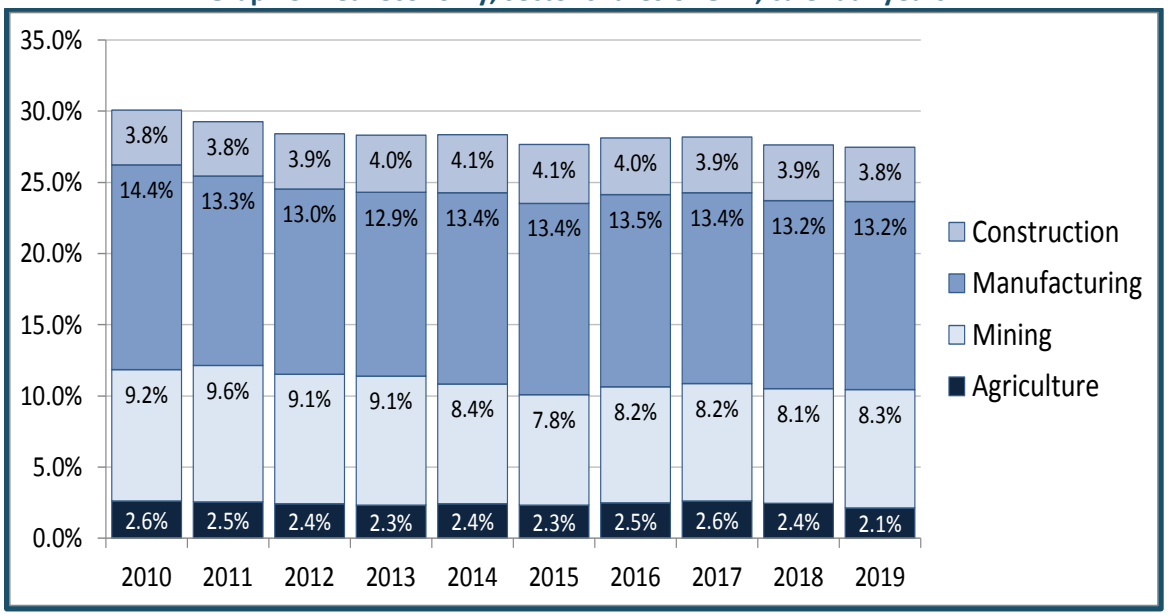
Graph 4. Indices of quarterly contribution to GDP in constant terms, by sector (first quarter 2010 =100)



Source: Statistic South Africa GDP quarterly figures. Excel spreadsheet downloaded from www.statssa.gov.za in March 2020.

As a result of the relatively slow growth in the real economy, its share in the GDP fell from 30% in 2010 to 27% in 2019. The decline mostly reflects the falling share of manufacturing, which dropped from 14.4% in 2010 to 12.9% in 2013, and since then has contributed just over 13% of the GDP. Mining saw a similar pattern, falling from a high of 9.6% in 2011 to a low of 7.8% in 2015 – parallel to the fall in international prices for mining products – and since then has stabilised at around 8.2% of the GDP.

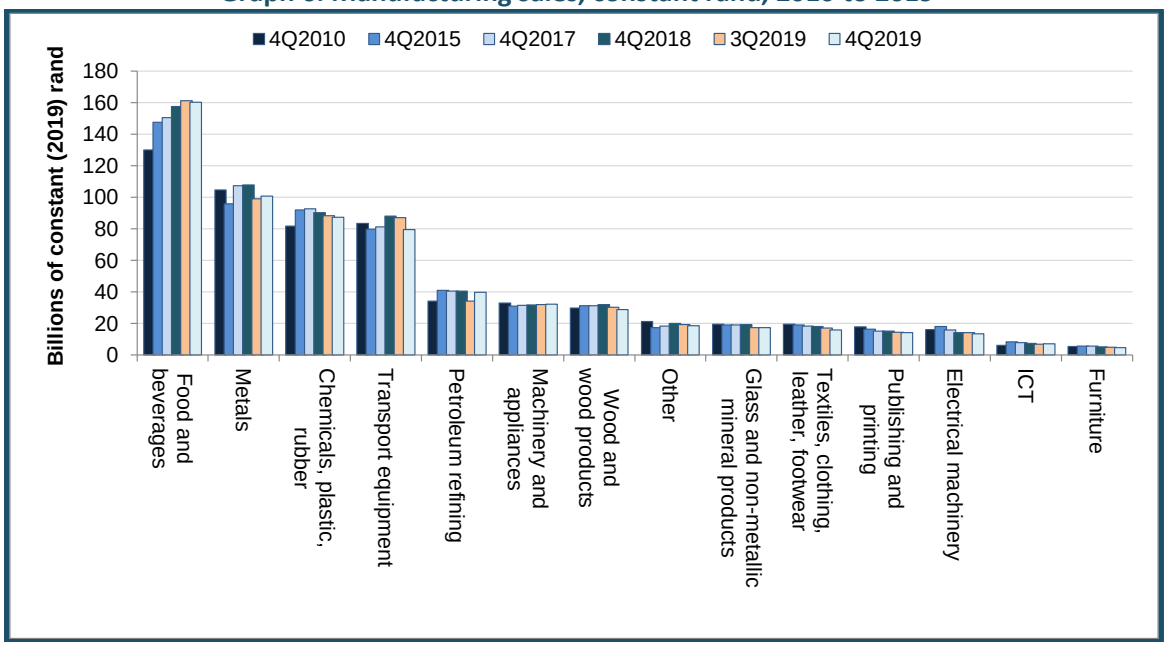
Graph 5. Real economy, sector shares of GDP, calendar years



Source: Statistics South Africa GDP quarterly figures. Excel spreadsheet downloaded from www.statssa.gov.za in March 2020.

Manufacturing sales in constant terms regained most of the ground lost in the third quarter of 2019, rising some 10%. Quarterly sales figures are, however, highly volatile. For the year to the fourth quarter of 2019, overall manufacturing sales decreased by 4.1%. The only growth was seen in food and beverages (increasing by 1.8%) and machinery and equipment (2.2%). All other subsectors saw falling sales. The decline was sharpest for textiles and clothing (-12.3%), glass and non-metallic minerals (-10.8%), and transport equipment (-9.8%). Since 2010, outside of food and beverages, sales have been flat or declining in constant terms.

Graph 6. Manufacturing sales, constant rand, 2010 to 2019



Source: Statistics South Africa. Manufacturing volume and sales from 1998. Excel spreadsheet. Downloaded in February 2020.

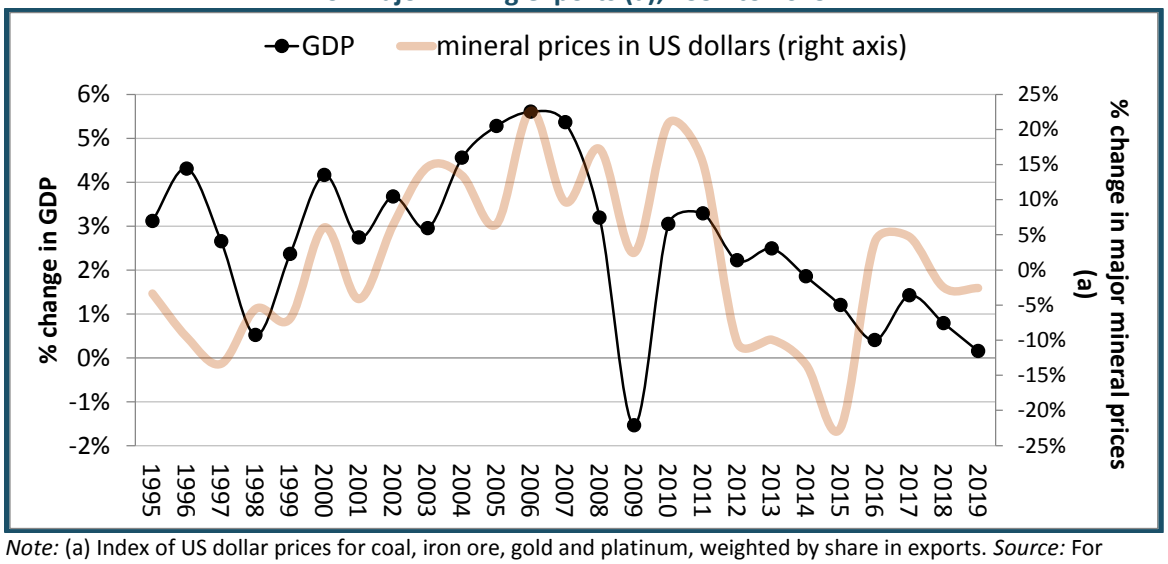
Behind the slowdown

Sluggish growth in 2019 reflected a combination of declining growth in key trading partners, especially China and Germany; the pro-cyclical fiscal and monetary policy in this context; and, on the supply side, the rising cost and unreliability of electricity as well as the impact of increased volatility in agriculture.

Slowing international and domestic demand

As the following graph shows, GDP growth has broadly tracked international metals prices over the past 20 years. It climbed during the global commodity boom from 2002 to 2011. Then, as the prices of South Africa's major mining exports – platinum, coal, iron ore and gold – declined, growth began a downward trend. From 2002 to 2011, South African exports climbed 15% a year in US dollar terms. Then they fell 7% annually through 2015 before beginning to grow again at 3% a year from 2015 to 2019. In 2019, they were still 17% lower in dollar values than they were in 2011. The depreciation of the rand provided some protection for local producers, increasing local revenues for exporters and raising the price of imports. Still, the sharp slowdown in exports weighed heavily on growth.

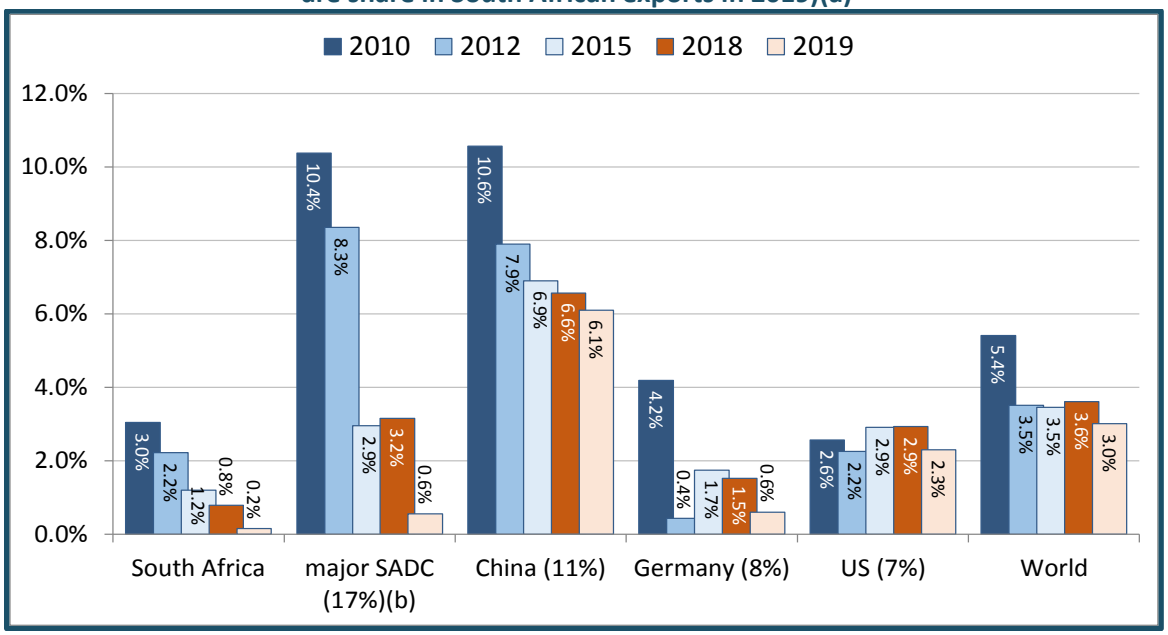
Graph 7. Growth in GDP and in trade-weighted index of international US dollar prices of major mining exports (a), 1994 to 2019



Note: (a) Index of US dollar prices for coal, iron ore, gold and platinum, weighted by share in exports. *Source:* For GDP, Statistics South Africa. Quarterly and Regional Fourth Quarter 2019. Excel spreadsheet downloaded in March 2020; for metals price, Index Mundi and Kitco data, downloaded in March 2019; and for trade weights, Quantec EasyData, international trade data at 6-digit HST level in current rand.

In recent years, as Graph 8 shows, all of South Africa's major trading partners faced a sharp slowdown in growth, which will likely worsen in 2020 as a result of the outbreak of the novel coronavirus. China, the US and Germany together account for over a quarter of South African export earnings, while five SADC countries – Botswana, Namibia, Mozambique, Zambia and Zimbabwe – accounted for a seventh. All of these countries have grown faster than South Africa, but they experienced significant slowdowns in 2019.

Graph 8. Growth in South Africa's top trading partners, 2010 to 2019 (figures in brackets are share in South African exports in 2019)(a)



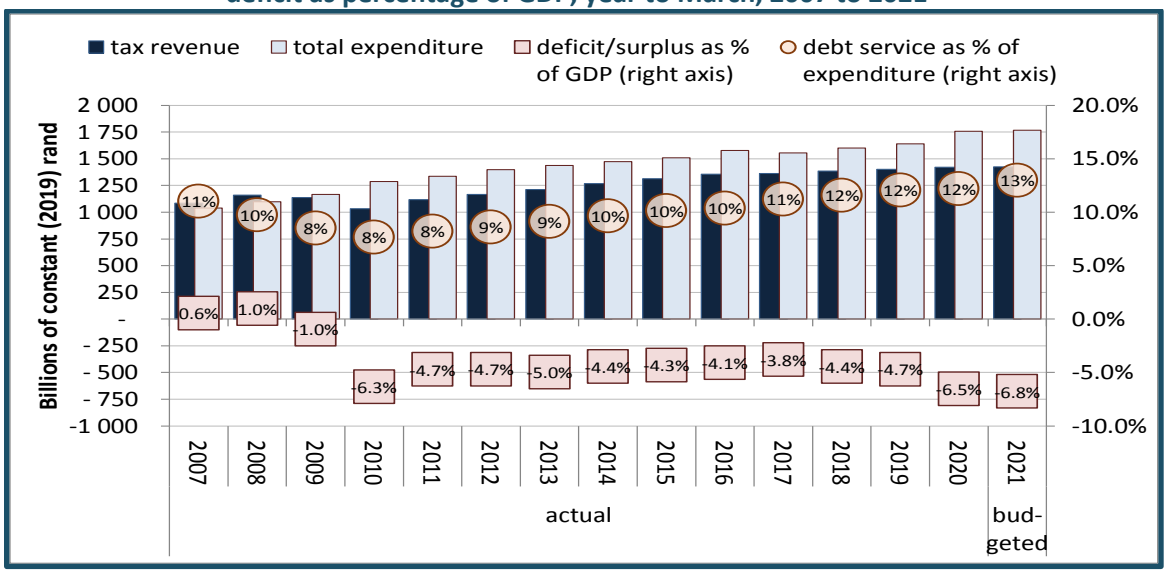
Notes: (a) Figures for 2019 are from national sources for China, Germany and the U.S. For Africa and the world, IMF estimates. (b) Index of GDP growth for Botswana, Namibia, Mozambique, Zimbabwe and Zambia, weighted by size of the economies. *Source:* IMF. World Economic Outlook. October 2019. Downloaded in March 2020.

While international exports have slowed, domestic demand has been depressed by pro-cyclical fiscal and monetary policies. Budgets expanded much more rapidly when the economy was growing rapidly and government revenues climbed sharply, then slowed when growth flattened out. Interest rates dropped during the commodity boom, but have increased in real terms in recent years. These measures do not amount to austerity. Rather, they arise from accommodation to changing circumstances in ways that aggravate rather than counteracting the slowdown.

On the fiscal side, the budget has not been cut, and from 2018 a jump in spending in real terms means the deficit increased from 4% to 7% of the GDP. But growth in spending fell markedly as the economy slowed after 2011. From 2002 to 2011, as the metals price boom fuelled growth, in constant terms government spending climbed 7% a year; from 2011 to 2015, it grew 3% a year; and from 2015 to 2017, it expanded 2% a year. From fiscal 2019 to 2021, in contrast, government spending was budgeted to rise by 4% a year, far outstripping tax revenues. Most of the increase in 2019 went to bail out Eskom and South African Airways, while social services faced significant cuts in real terms.

A critical brake on the budget has been slower tax revenues, which in turn reflect worsening profitability across the economy; the loss of capacity at the South African Revenue Services in recent years; and increased efforts by companies to evade taxation as their profit rates have declined. From 2018 to 2021, tax revenues were budgeted to increase just 0.9% a year. As a result, despite slower growth in expenditure, the budget deficit jumped from 4.7% of the GDP in 2019 to 6.5% in 2020, and was budgeted at 6.8% for 2021. A consequence was rising national debt-service payments, which climbed from 8% of government spending in 2008 to 12% in 2020.

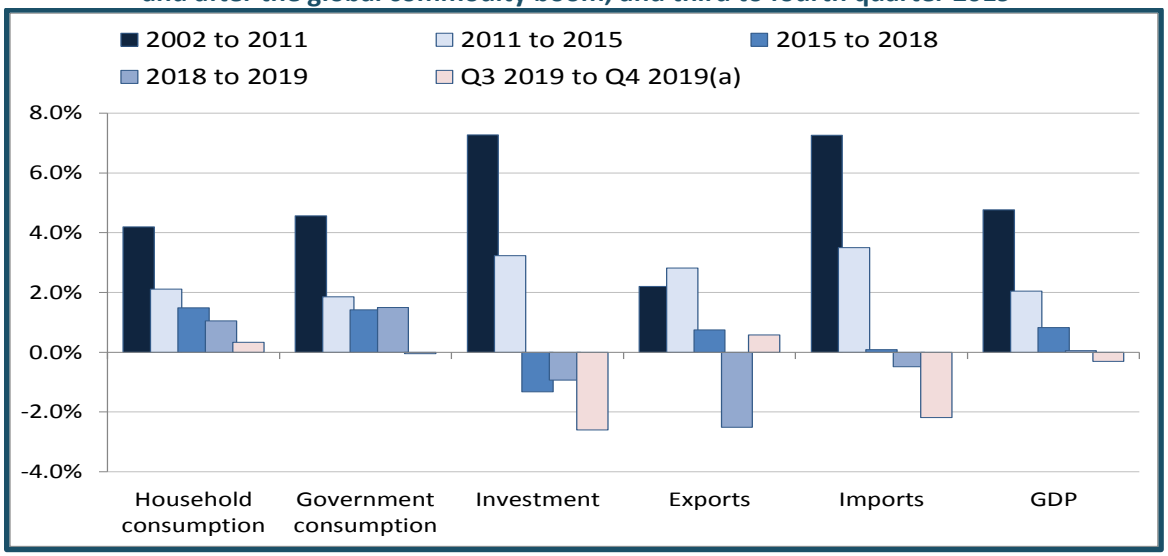
Graph 9. National government tax revenues and expenditure in billions of constant (2019) rand (a), interest payments as a percentage of government expenditure, and the deficit as percentage of GDP, year to March, 2007 to 2021



Note: (a) Deflated with average CPI for the year to March, rebased to 2019. *Source:* National Treasury. Budget Review 2020.

The pro-cyclical nature of government spending emerged in figures for government consumption, as the following graph shows. It climbed 4.6% a year in the global commodity boom from 2002 to 2011. As economic growth slowed from 2011, however, it expanded more slowly, by 1.9% a year from 2011 to 2015, and then by 1.4% annually from 2015 to 2018. In 2019, it increased by 1.5%. In short, from 2015, although government final consumption grew more rapidly than the GDP as a whole, it was far slower than during the global commodity boom.

Graph 10. Change in expenditure on GDP, average annual growth during and after the global commodity boom, and third to fourth quarter 2019

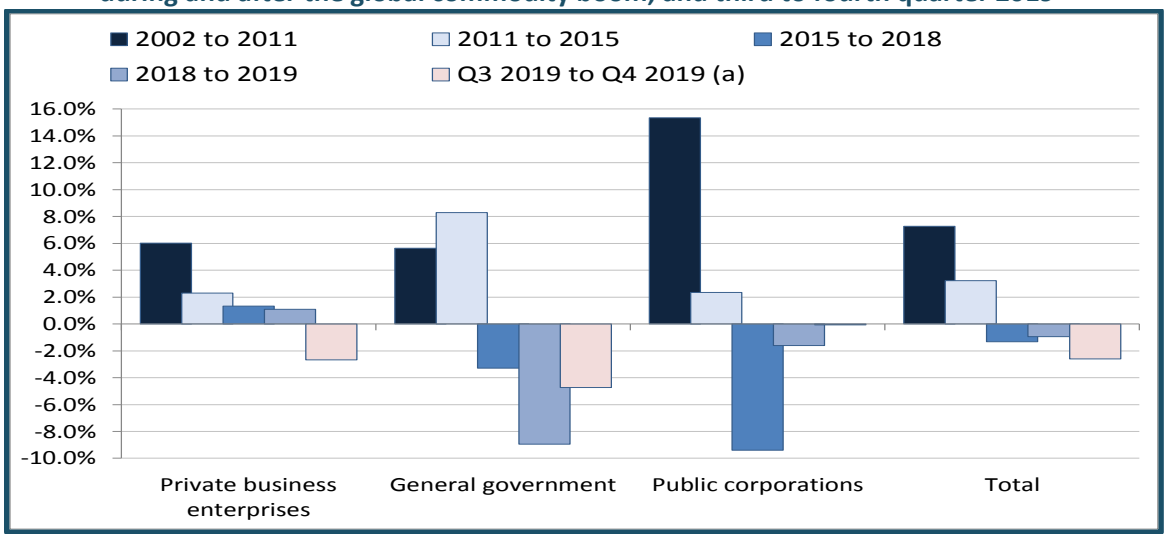


Note: (a) Seasonally adjusted. *Source:* Statistics South Africa. Gross Domestic Product (Quarterly)(2019Q4). Excel spreadsheet downloaded from www.statssa.gov.za in March 2020.

Public investment, which includes investment by both government and state-owned companies, was even more pro-cyclical.

As Graph 11 shows, during the commodity boom from 2002 to 2011, public investment climbed 10% a year, more than doubling in constant rand terms and rising from a quarter to a third of all investment in South Africa. Its annual growth rate plummeted to 5% from 2011 to 2015, however, with a particularly sharp fall from state-owned companies. From 2015 to 2018, the public sector disinvested at 8.5% a year, and from 2018 to 2019 its investment contracted 2.4%.

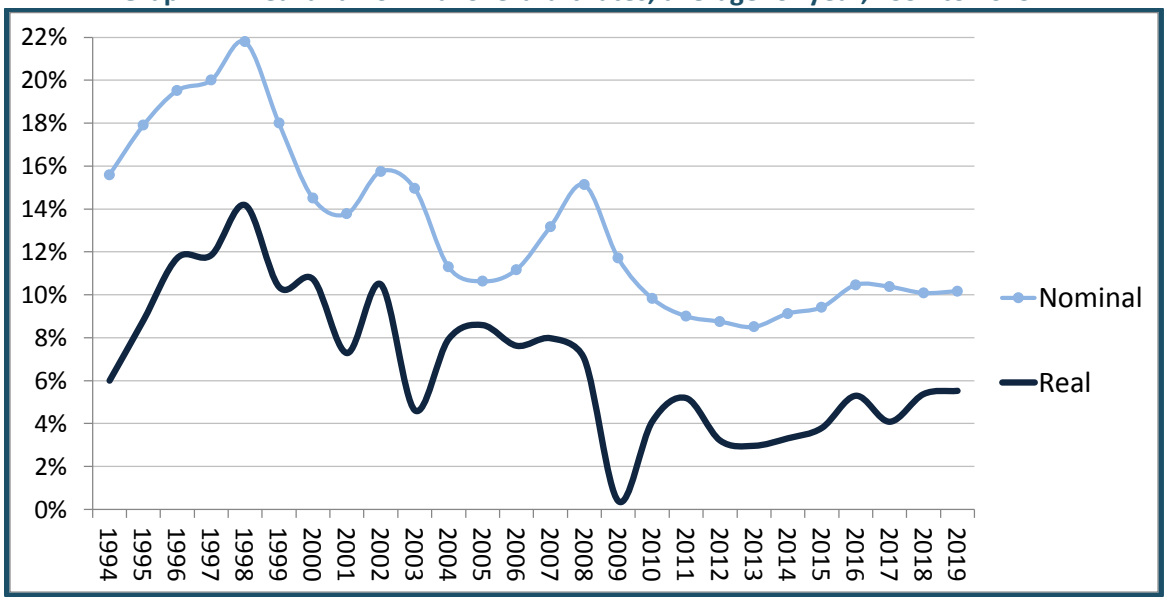
Graph 11. Change in investment by public and private sector, average annual growth during and after the global commodity boom, and third to fourth quarter 2019



Note: (a) Seasonally adjusted. Source: Statistics South Africa. Gross Domestic Product (Quarterly)(2019Q4). Excel spreadsheet downloaded from www.statssa.gov.za in March 2020.

In terms of monetary policy, real interest rates declined significantly from the late 1990s to 2012. From 2012 to 2019, however, just as the economy slowed, they increased by more than 2%. The rise partially reflected higher nominal rates as the Reserve Bank reacted to the depreciation of the rand following the sharp fall in export prices. From 2017 to 2019, the real rate rose mostly because inflation dropped from 6% to 4.5% (see Graph 12).

Graph 12. Real and nominal overdraft rates, average for year, 1994 to 2019



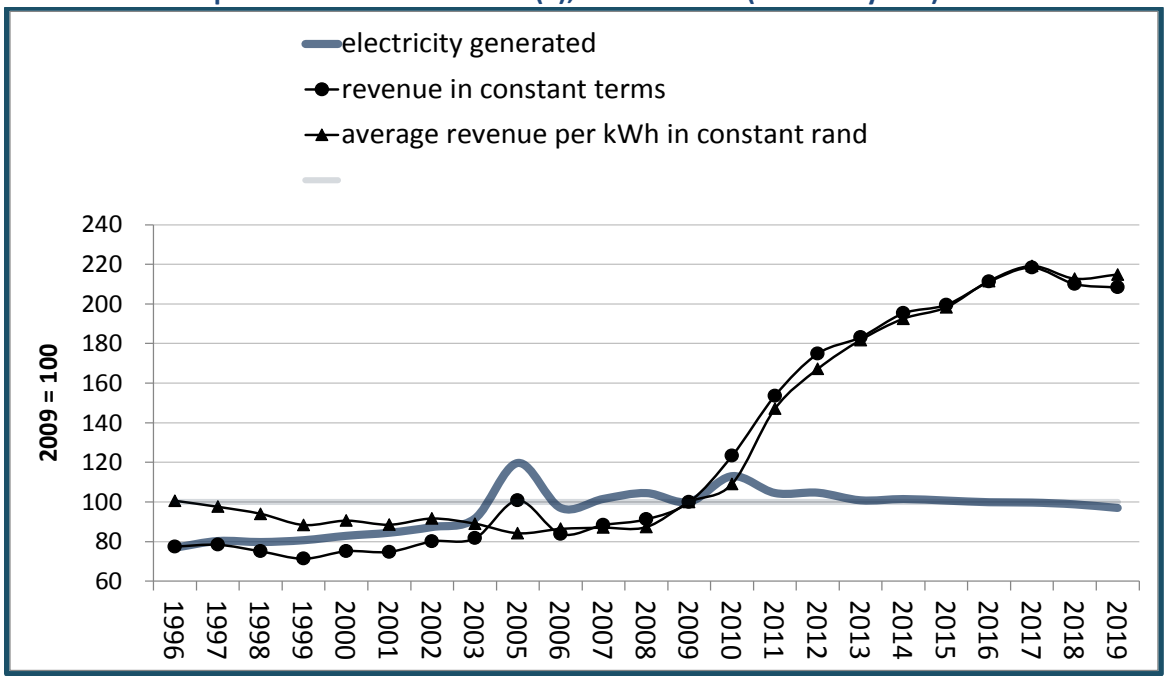
Source: South African Reserve Bank. Online download facility. Interactive dataset. Downloaded in March 2020.

Supply-side constraints: Electricity and the climate crisis

On the supply side, the unreliability and rising cost of electricity became an increasingly important constraint on the economy. In addition, acceleration of the climate crisis led to more frequent and intense droughts, which in turn aggravated volatility in agricultural production.

From 2015 to 2019, Eskom engaged in loadshedding for extended periods, mostly recently in the second half of 2019. In the same period, its tariffs climbed by 8% in real terms, after more than doubling from 2008 to 2015. These trends affected virtually all producers, but especially the electricity-intensive metals refineries that also faced stagnant prices after 2011. They responded by adopting more energy efficient technologies and in some cases by downsizing electricity-intensive production lines. As the following graph shows, the result was that electricity use declined 8% from 2008, even as Eskom's total revenues rose sharply. In 2018 and 2019, Nersa refused to provide Eskom with the increases it demanded, leading to a fall in tariffs and revenues in real terms. In response, Eskom has taken Nersa to court.

Graph 13. Indices of Eskom generation in GWh and total revenue as well as revenue per GWh in constant rand (a), 1996 to 2019 (financial years)



Note: (a) Deflated with CPI. *Source:* Calculated from Eskom Annual Reports for relevant years.

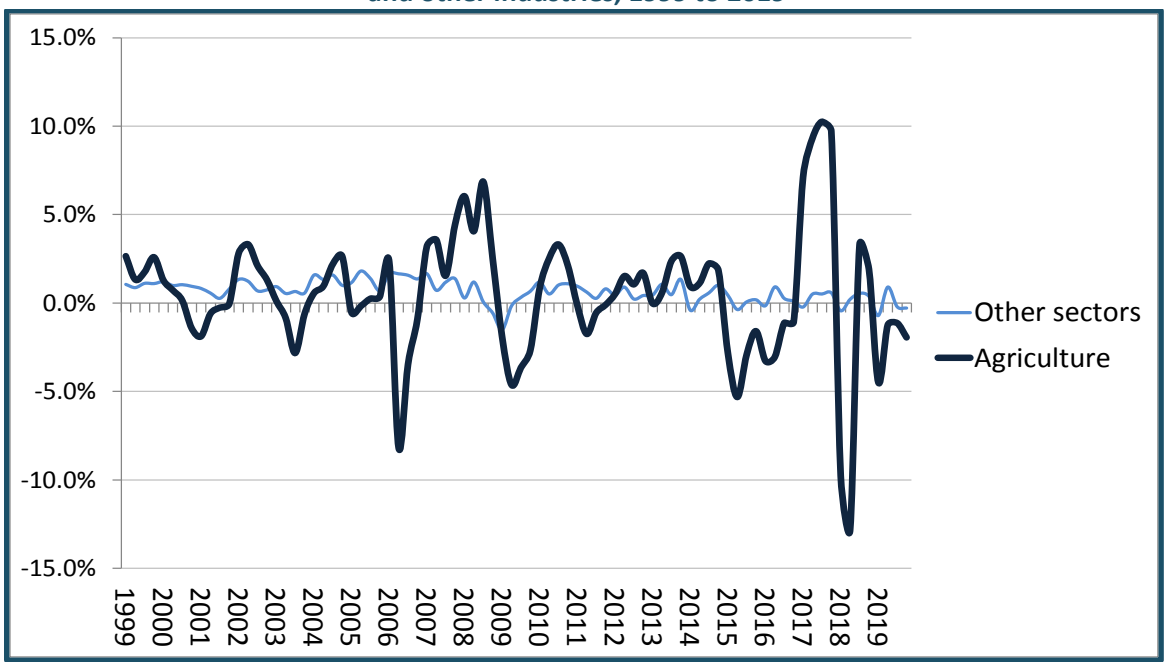
Eskom's crisis started because from 2008 it invested heavily in very large, coal-fuelled plants. It ignored the option of utilising newer, smaller-scale technologies as well as the gradual decline in electricity intensity. To pay for its new plants, Eskom raised its borrowing to R300 billion in 2018, equal to a tenth of total public debt; doubled electricity prices in real terms; and delayed repairs on existing plants. Then both the Medupi and Kusile plants proved late and faulty, generating less than anticipated. That plunged the electricity grid (and Eskom's finances) into crisis. In 2018, Eskom paid R25 billion in interest and made losses of R20 billion, adding to the burdens on the fiscus and the economy.

A second supply-side factor was agriculture. The sector contributes only around 2% of the GDP. It has, however, experienced extreme fluctuations in production as a result of repeated droughts.

In the context of slow growth in the rest of the economy, the result was a disproportionate influence on GDP figures. In 2019, agriculture saw the largest decline of any sector in rand terms, at R5 billion, with a 7% drop in its output. That in itself reduced GDP growth by 0.1%.

Grapn 14. points to the growing volatility in agricultural production, as droughts are followed by steep rebounds. The severity of the 2015/16 drought was unprecedented in the previous 20 years, while 2018 again saw a decline as a result of regional droughts. The maximum quarterly decline in agricultural production in the past 20 years (seasonally adjusted but not annualised) was 13%, while the fastest growth was 10%. No other sector saw a decline greater than 7% or growth of more than 5% in a single quarter over this period. The standard deviation for seasonally adjusted quarterly growth in agriculture from 1999 to 2014 was 2.5%. Since 2014, it has risen to 5.6%. The next most volatile sector in the past five years was mining, but the standard deviation for its quarterly growth was 2.8%, and the figure was under 1.5% for every other sector.

Grapn 14. Annual percentage change in value added in agriculture and other industries, 1999 to 2019



Source: Calculated from Statistics South Africa. GDP data. Quarterly and Regional Fourth Quarter 2019. Excel spreadsheet downloaded in March 2020

The climate crisis has brought higher temperatures that result in more intense droughts but also more tempestuous rainfall, typically affecting sub-regions rather than the entire country. South Africa as a whole has already seen temperatures increase at twice the rate of the globe as a whole, and this trend is likely to continue. By region, droughts have become more likely in the Western Cape and Limpopo, while temperatures have risen twice as fast in inland provinces as along the coast. Rainfall is likely to decline in the Southern Cape by up to 30% by 2050. It is expected to increase in most of the rest of the country except in the northeast, but become more erratic. The higher temperatures generally make droughts more likely even if rainfall increases in some areas. They also foster new kinds of pests and blights, especially if combined with more humidity, and add to stress on livestock.

Conclusions

The global boom in metals prices brought a temporary growth spurt to South Africa. But it reinforced dependency on the mining value chain, including heavily energy-intensive refineries, rather than promoting diversification. The end of the boom has imposed slower growth. The coronavirus outbreak is likely to further slow growth in major trading partners, especially in Asia, adding to pressure on the economy for much of 2020.

Since the end of the mining boom in 2011, government has adopted a moderately pro-cyclical stance as it sought to minimise the immediate risks around fiscal and monetary policy. Poor decisions by Eskom aggravated the slowdown and in the past two years have added to the burdens on the budget. The increase in the intensity of droughts as a result of the climate crisis also contributed to slower growth in the past five years.