TRADE & INDUSTRIAL POLICY STRATEGIES

POLICY BRIEF: 2/2018

Challenges around the GDP data for first quarter 2018

OVERVIEW

The recent data on the GDP appear to overstate the economic slowdown. This can be seen, among others, by a comparison with longer-term trends and employment data. The data show that the economy contracted by just over half a percent (although the release only provides annualised data, showing a 2,2% fall, which is effectively four times the actually decline).

The GDP estimates apparently overstate the slowdown for three reasons:

- There was an extraordinary and unexplained R10-billion export of crude petroleum in the fourth quarter of 2017. South Africa never exports substantial amounts of petroleum, and instead imports around R5 billion a month. This sale led to a once-off spike in exports in the fourth quarter of 2017, followed necessarily by a decline when exports normalised in the first quarter of 2018.
- It appears that the seasonally adjusted figures for agricultural output did not adequately take into account the Western Cape drought. The result was a large correction in the first quarter of 2018 as the harvest data came in for the affected region.
- Generally, the seasonal adjustment of the GDP data has apparently become less consistent since 2014. As a result, the first quarter has become much more likely to show a growth slowdown than the other quarters – precisely the effect that seasonal adjustment should avoid.

These findings do not mean the economy did not slow down in the first quarter, but rather that the data overstate the slowdown. The real concerns arising from the GDP data are:

- That the South African GDP in the past few years has not kept up with peer economies for the first time since 1994,
- A decline in investment across the private and public sectors, and
- Continued volatility in the mining value chain, with a crisis affecting the steel industry and a decline in platinum.

This policy brief first assesses the GDP trends and why the latest quarter appears out of step; then reviews the factors that might lead to an overstatement of the slowdown; and finally outlines the longer-term slowdown.

Trade & Industrial Policy Strategies (TIPS) is a research organisation that facilitates policy development and dialogue across three focus areas: trade and industrial policy, inequality and economic inclusion, and sustainable growth

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THE GDP FINDINGS

As Graph 1 (page 2) shows, the purported downturn comes after three quarters of strong reported growth for 2017 compared to the preceding three years. It seems likely that both the growth and the downturn were overstated. The risk is that exaggeration of the slowdown becomes a self-fulfilling prophesy by increasing investor uncertainty.

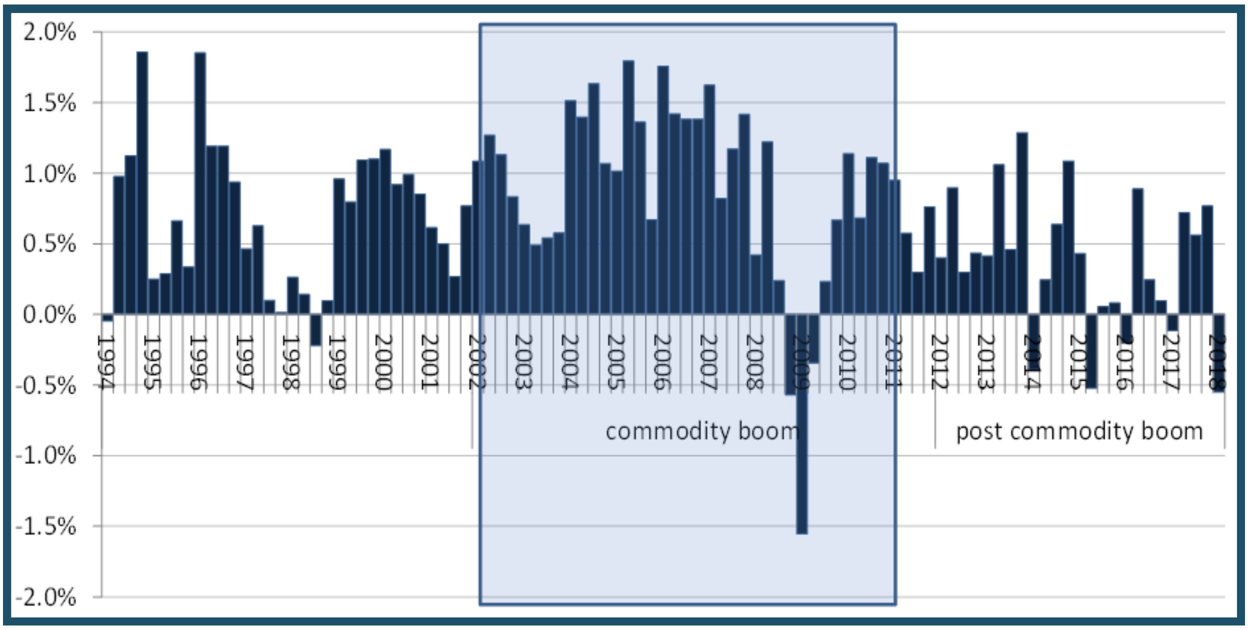
While the GDP data show a 0,54% decline, employment reportedly climbed by 1,3%, according to the Quarterly Labour Force Survey. The employment data are not seasonalised, in contrast to the GDP data. Still, the difference between the reported economic growth rate and job creation in the first quarter of 2018 was the seventh largest since the first quarter of 2008, when the Quarterly Labour Force Survey was introduced. The employment results are particularly striking as employment normally falls at the start of each year. In the decade to the first quarter of 2008, employment fell on average by 0,2% in the first quarter.

FACTORS THAT MIGHT HAVE EXAGGERATED THE DECLINE IN GDP

Three main factors appear to have led to an exaggerated finding about the GDP decline: the extremely unusual petroleum export in the final quarter of 2017; the difficulty of accounting for the Western Cape drought in the seasonally adjusted figures; and broader problems around the seasonal adjustment to GDP estimates since 2014.

June 2018

Graph 1: Quarterly percentage change in GDP, 1994 to first quarter 2018



Source: Calculated from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

Petroleum exports

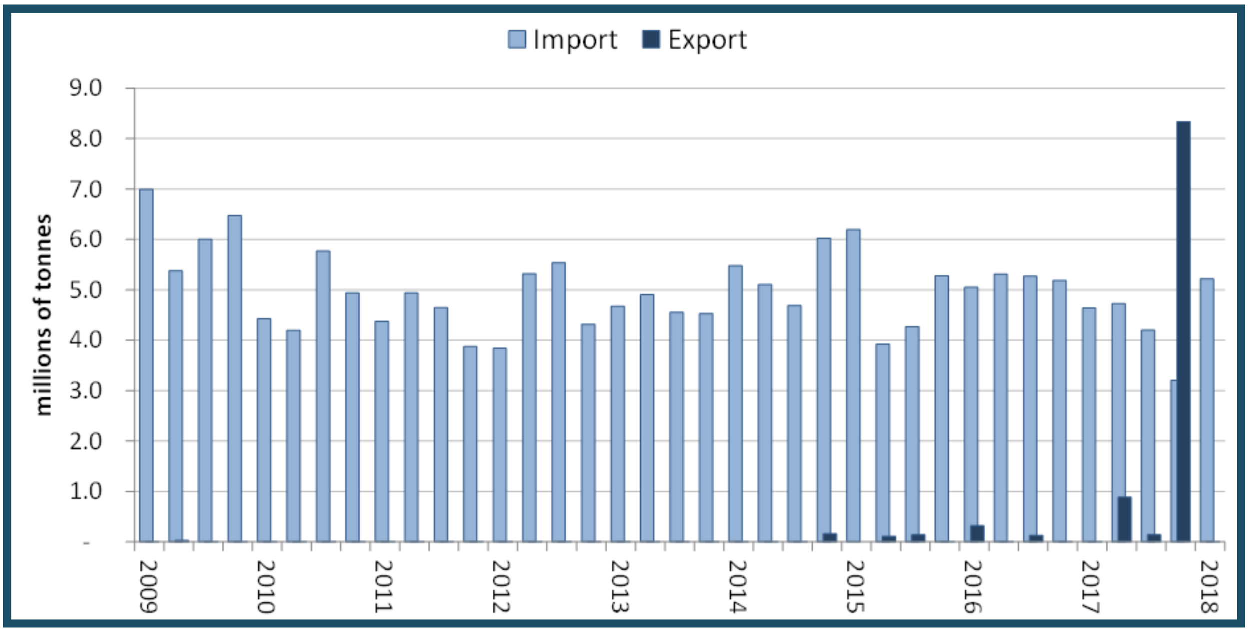
Statistics South Africa analyses the GDP in terms of both production – that is, value added in economic sectors – and expenditure, which comprises household consumption, investment, changes in inventories and net exports. On the expenditure side, it found that a sharp decline in exports caused the contraction in the first quarter of 2018. Without the fall in exports, according to its data the GDP would have climbed by just under 0,2%. The export bust was, however, apparently due to the once-off sale of petroleum.

The sale was an entirely unique event that accounted for half of the export growth from the third to the fourth quarter of 2017, and 20% of the decline in total foreign sales in the following quarter.

As Graph 2 shows, South Africa rarely exports petroleum, although it imports around R5 billion a year. Yet in the fourth quarter of 2017, the South African Revenue Services (SARS) reported exports of eight million tonnes of crude petroleum, worth around R10 billion.

In the last quarter of 2017, South Africa effectively exported the equivalent of two months of petroleum imports. According to SARS data, the oil was sold in November and December of 2017. Sales were primarily to China, followed by the US, India, Taiwan and Indonesia (see Graph 3, page 3).

Graph 2: Quarterly imports and exports of crude petroleum, 1994 to first quarter 2018



Source: Quantec EasyData. Electronic database. RSA Trade HS 8-digit. Series on exports and imports of crude petroleum in kg. Downloaded from www.quantec.co.za in June 2018.

> *The risk is that exaggeration of the slowdown becomes a self-fulfilling prophesy by increasing investor uncertainty.*

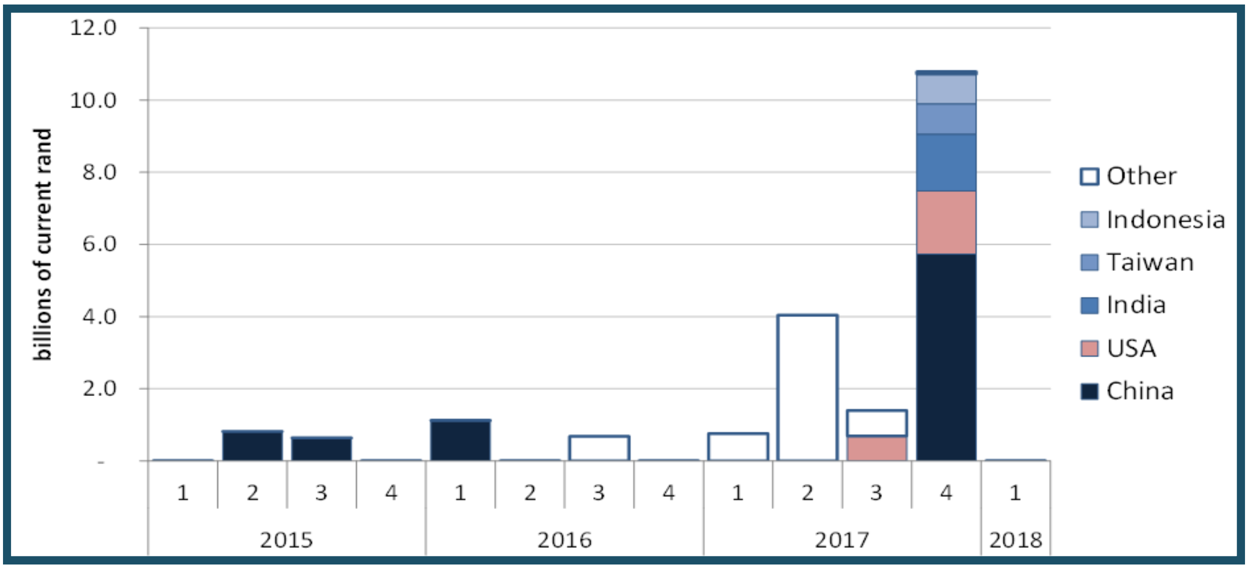
It is likely that the petroleum transaction had a disproportionate impact on the GDP estimate as most of the rest of the decline in exports from the fourth quarter of 2017 to the first quarter of 2018 was in auto and mining, especially platinum. These products see a regular drop in exports in the first quarter, although usually less pronounced than in 2018. As a result, their decline was presumably at least partially offset in the seasonal adjustment process. In contrast, the petroleum transaction would not have been subject to any seasonal adjustment because such a sale has never happened before or since.

Agricultural output

On the production side, a reported fall in agricultural production accounted for 33% of the reported decline in the GDP, in seasonally adjusted terms, in the first quarter of 2018. With agriculture, the seasonally adjusted GDP reportedly fell by 0,55%; without the reported decline in agriculture, the contraction would have been 0,34% (or 1,5% at an annual rate). Agriculture contributes just 3% of the total GDP, so it had an outsize effect on the figures for the first quarter of 2018. As Graph 4 shows, its impact on overall growth has grown considerably over the past few years.

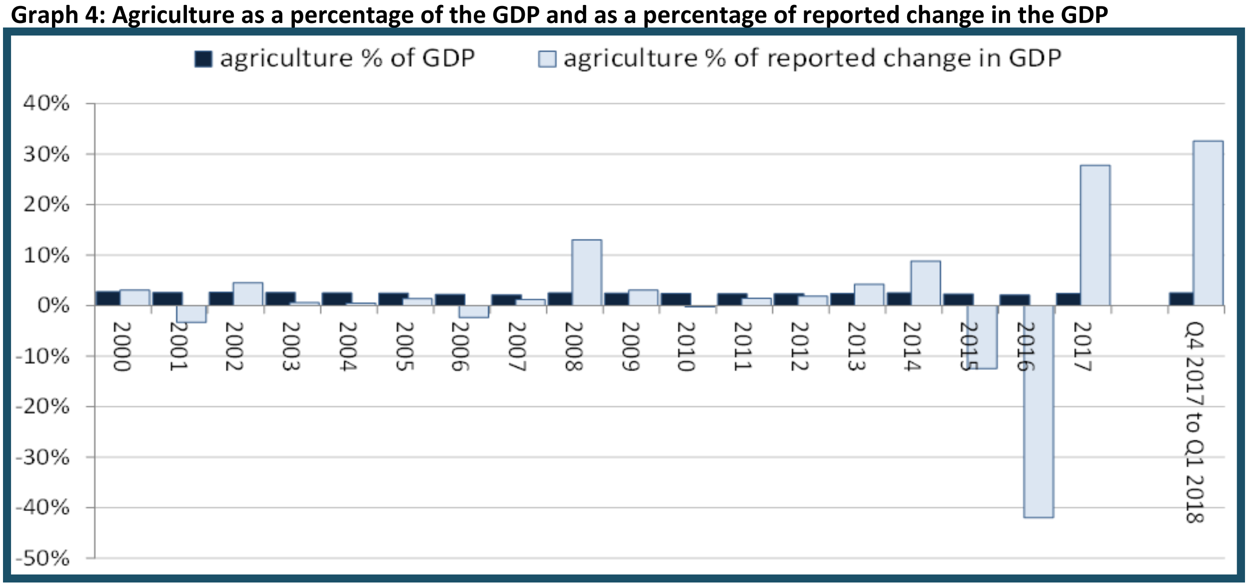
It is likely that the reported fall in agricultural output in the first quarter of 2018 in part reflected an overestimate for the preceding four quarters, possibly due to an underestimation of the impact of the drought in the Western Cape.

Graph 3: Countries to which South Africa exported petroleum, by quarter, 2015 to 2018



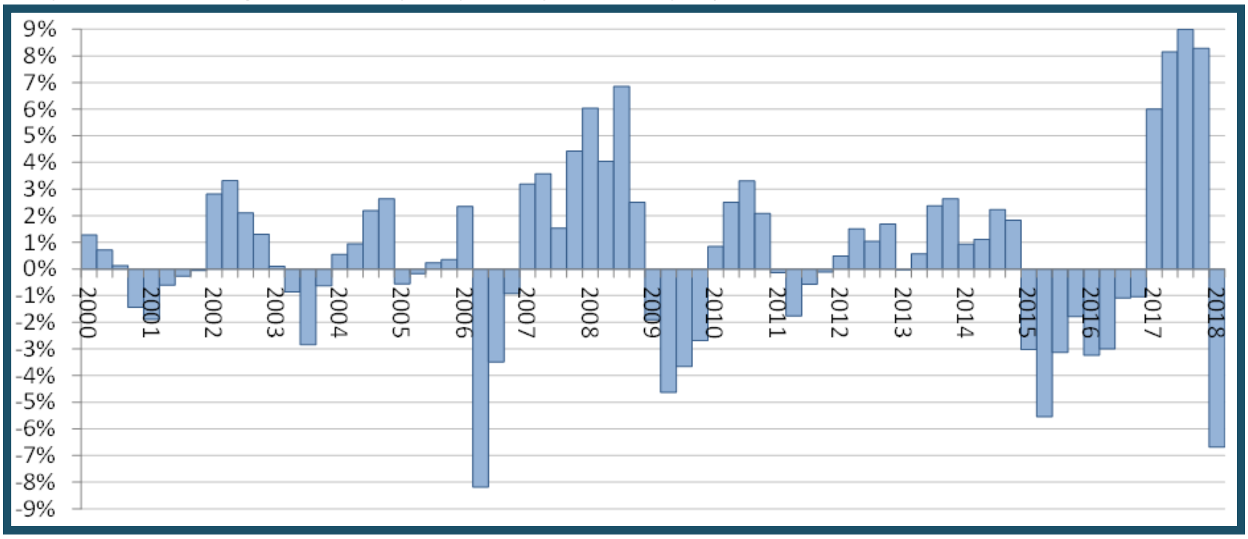
Source: Quantec EasyData. Electronic database. RSA Trade HS 8-digit. Series on exports and imports of crude petroleum in kg. Downloaded from www.quantec.co.za in June 2018.

Graph 4: Agriculture as a percentage of the GDP and as a percentage of reported change in the GDP



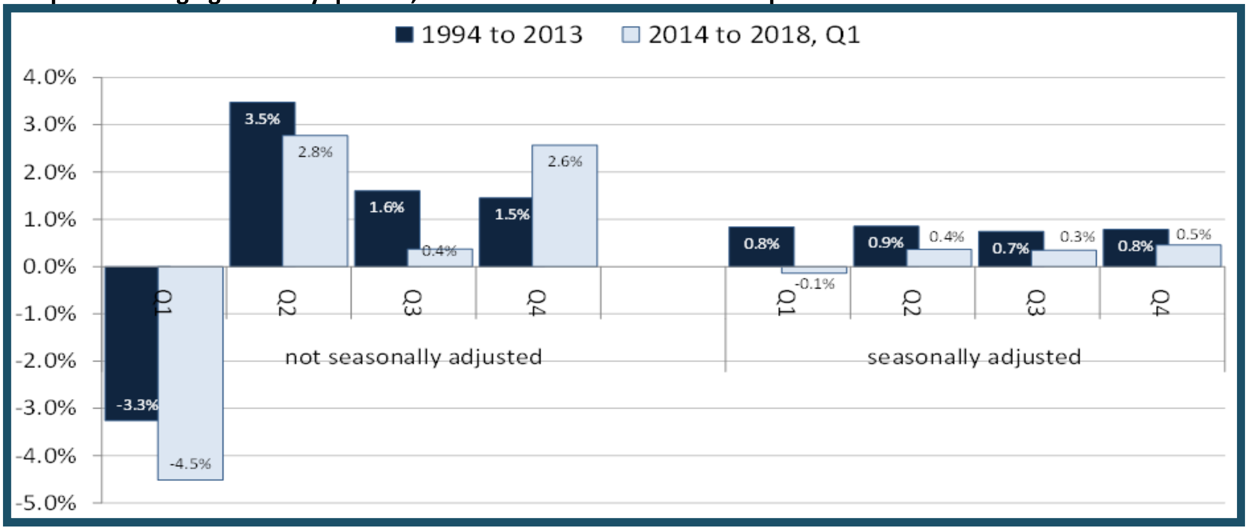
Source: Calculated from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

Graph 5: Growth in agricultural output, quarterly, seasonally adjusted



Source: Calculated from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

Graph 6: Average growth by quarter, 1994 to 2013 and 2014 to first quarter 2018



Source: Calculated from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

The GDP data show that, in seasonally adjusted terms, agricultural growth in 2017 was substantially faster than at any previous time in the past 17 years (see Graph 5). It found that, from the final quarter of 2016 to the final quarter of 2017, agricultural output climbed by 35%. That more than made up for the 25% fall from the final quarter of 2014 to the final quarter of 2016, during the national 2015/6 drought.

Seasonal adjustment

The seasonal adjustment of the GDP figures should ensure they portray economic trends abstracted from seasonal factors that lead to regular highs and lows in output. The seasonal effects are most obvious for agriculture, but the shutdown period in mining and manufacturing also leads to a decline in production, while the Christmas shopping season tends to boost retail. In theory, if the seasonal adjustment is fully effective, over time growth estimates would not vary substantially between quarters. That is, over say five years the average growth in the first quarter of the year would not differ from the average growth rate in the rest of the year, although it might diverge in any individual year.

In practice, in South Africa there was little difference in the reported average growth by quarter from 1994 to 2013. In other words, the seasonal adjustment functioned appropriately. In contrast, from 2014 to 2018, the seasonally adjusted figures for the first quarter showed a 0,1% decline in the GDP on average, but average growth of between 0,3% and 0,5% in the other three quarters of the year. Graph 6 shows the average quarterly growth rate for both the actual and the seasonally adjusted GDP estimates from 1994 to 2013 and from 2014 to 2018. The graph suggests that seasonal adjustment of the GDP figures over the past four years has deteriorated. As a result, from 2014 to 2018 first quarter growth was systematically underestimated by between 0,4% and 0,6%. If the average seasonally adjusted growth estimate for the first quarter equalled growth in the other quarters, the estimate might show no contraction in the economy at all in the first quarter of 2018, although it would likely find slower growth over most of 2017.

Conclusions

It is not possible to correct the GDP estimates without a better understanding of how the seasonal adjustments generally, and in particular with reference to agriculture and exports, were conducted. Still, it seems clear that the estimated decline of 0,55% for the first quarter of 2018 is significantly exaggerated. That said, as the following section briefly outlines, the data do point to real weaknesses in the economy over the past few years.

ECONOMIC CHALLENGES

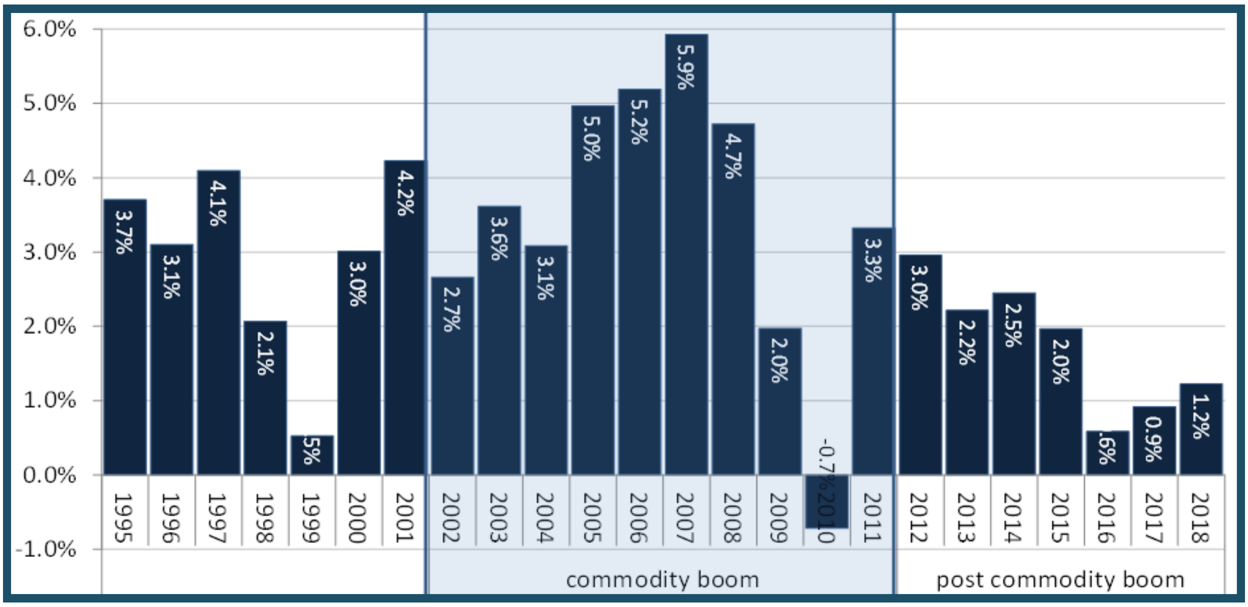
The main real challenges arising from the GDP data are that:

- For the first time since 1994, since around 2010 South Africa has grown significantly more slowly than peer economies; and
- Investment continued to decline through the first quarter of 2018, with a particularly sharp fall in general government investment.

The growth slowdown

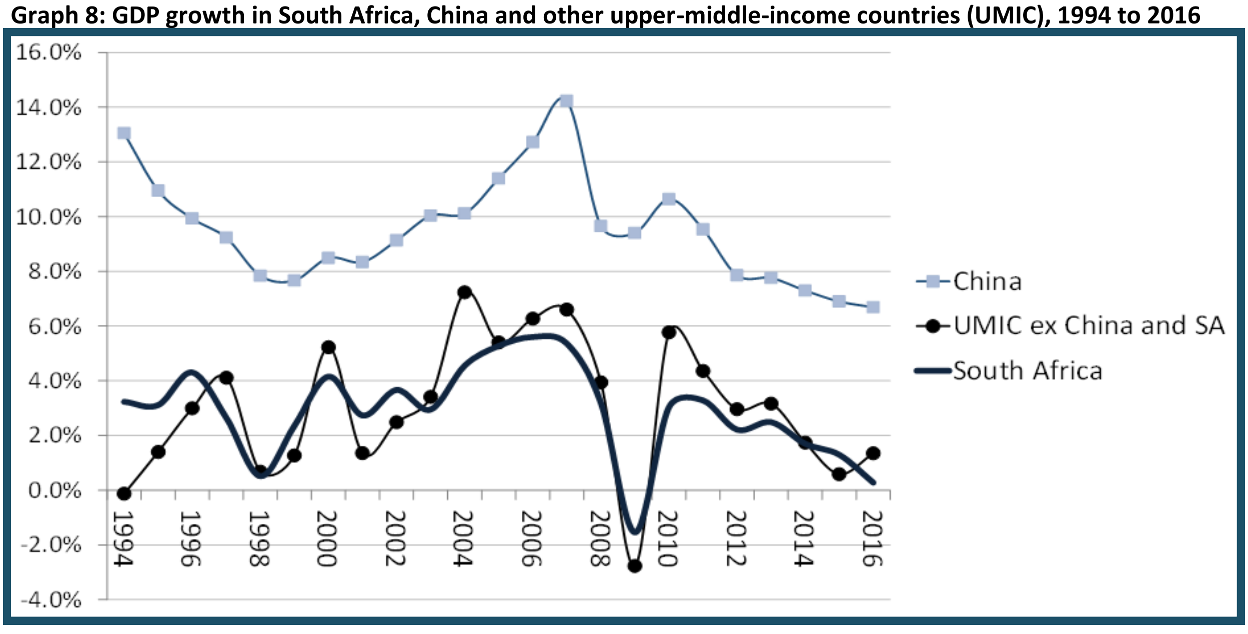
As Graph 7 shows, since the end of the commodity price boom in 2011, GDP growth has generally declined. A modest recovery was reported from 2015 to 2017. For the first time since 1994, however, from 2010 to 2016 South Africa slipped markedly behind other upper-middle-income economies excluding China. China is left out because it is an outlier, with far more rapid growth than virtually any other economy in the group. The available data only go to 2016, but the relatively poor growth reported for 2017 makes it unlikely that the situation has improved substantially since then (Graph 8).

Graph 7: Growth in year to March, 1995 to 2018



Source: Calculated from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

Graph 8: GDP growth in South Africa, China and other upper-middle-income countries (UMIC), 1994 to 2016



Source: Calculated from World Bank. World Development Indicators. GDP in constant 2010 U.S. dollars for China, South Africa, and upper-middle-income countries. Downloaded from www.worldbank.org in June 2018.

The latest economic data point to the importance of acting urgently to provide a responsible stimulus to the economy.

Investment

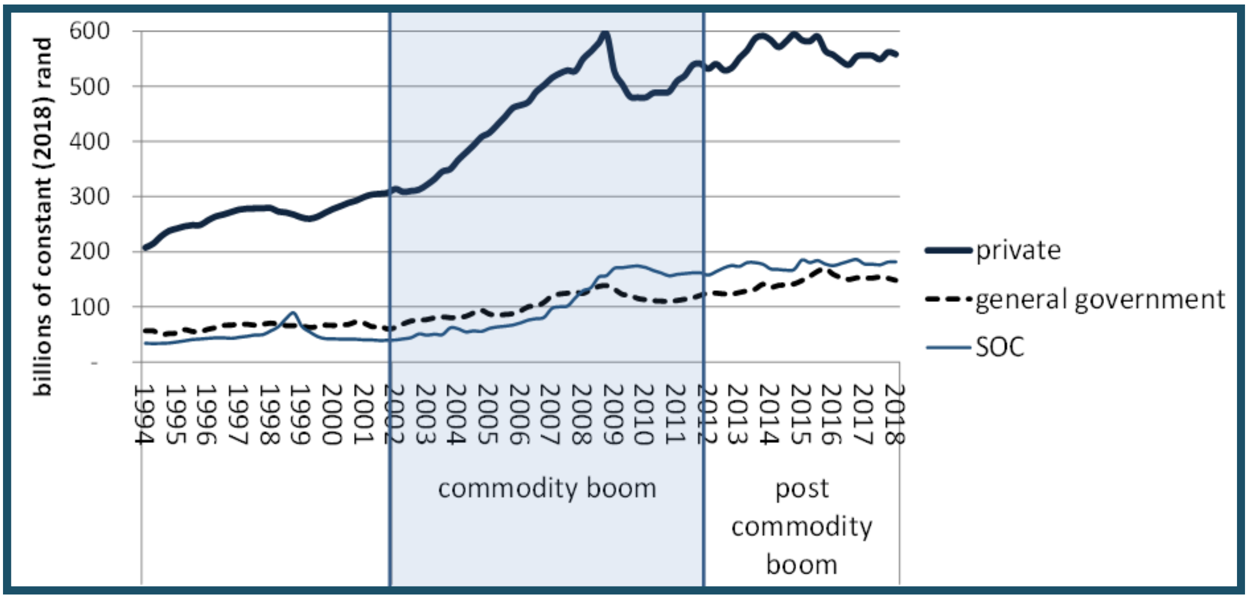
As Graph 9 shows, investment by private business, state-owned companies (SOCs) and government has declined in recent years, following the end of the commodity boom in 2011.

The most rapid drop was in government investment, which fell 12% through the first quarter of 2018. This decline presumably results from austerity efforts, which usually bring about a sharper fall in investment than in other types of public spending. Private investment fell 9% from the fourth quarter of 2014 to the third quarter of 2016 but then rebounded by around 4% through the first quarter of 2018 in seasonally adjusted terms. SOC investment essentially stabilised through this period despite some quarterly fluctuations.

Conclusions

Stronger action is needed to address the slowdown in economic growth and investment. Central strategies would use resources from the UIF to provide a macro-economic stimulus without adding to stress on the fiscus; more vigorous promotion of local procurement; and greater discipline in developing and implementing economic policy to ensure coherence and consistency across the departments, agencies and spheres of the state. The latest economic data point to the importance of acting urgently on these kinds of measure in order to provide a responsible stimulus to the economy.

Graph 9: Investment by private business, general government and public corporations 1994 to 2018, in constant (2018) rand (a)



Note (a): Deflated with deflator from sources rebased to Q1 2018. Sources: Calculated from, for 1994 to 2017, South African Reserve Bank. Interactive database. Series on gross fixed capital formation by organisation.
Sources: Downloaded from www.resbank.gov.za in June 2018; and for first quarter 2018, from Statistics South Africa. GDPp 1Q 2018. Excel spreadsheet. Downloaded from www.statssa.gov.za in June 2018.

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