

South African Reserve Bank Occasional Bulletin of Economic Notes OBEN/17/01

South African Reserve Bank Economic Notes are typically short economic analyses initially written for internal discussion and to stimulate debate. They are written by staff members of the South African Reserve Bank or visiting fellows and are released publicly on an occasional basis.

**Authorised for publication by:
Chris Loewald and Rashad Cassim**

March 2017



South African Reserve Bank

SARB Occasional Bulletin of Economic Notes

March 2017

Contents	Page
1. South African households – how to deleverage without saving <i>Jean-François Mercier and Elriëtte Botes</i>	1
2. Output gap uncertainty <i>Franz Ruch, Byron Botha and Rudi Steinbach</i>	13
3. Current account rebalancing: an exploration of the trade data <i>Rowan Walter and David Fowkes</i>	20
4. Credit where it's due: Identifying the drivers of weak credit growth in South Africa <i>Theo Janse van Rensburg, Erik Visser and Danie Meyer</i>	28
5. All about that base? Assessing the role of base effects in South African CPI inflation <i>Thulisile Radebe & David Fowkes</i>	36
6. Analysis and revisions to the food outlook based on the Disaggregated Inflation Model <i>Janine Boshoff and Byron Botha</i>	45

The views expressed in these Economic Notes are those of the author(s) and should not be attributed to the South African Reserve Bank or South African Reserve Bank policy. While every precaution is taken to ensure the accuracy of information, the South African Reserve Bank shall not be liable to any person for inaccurate information, omissions or opinions contained herein.

Information on South African Reserve Bank Economic Notes can be found at [http://www.resbank.co.za/Research/Occasional Bulletin of Economic Notes/Pages/EconomicNotes-Home.aspx](http://www.resbank.co.za/Research/Occasional%20Bulletin%20of%20Economic%20Notes/Pages/EconomicNotes-Home.aspx)

Enquiries

Head: Research Department
South African Reserve Bank
P O Box 427
Pretoria 0001

Tel. no.: +27 12 313-3911
0861 12 SARB (0861 12 7272)

© South African Reserve Bank

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without fully acknowledging the author(s) and these Economic Notes as the source.

Current account rebalancing: an exploration of the trade data

June 2016

Rowan Walter and David Fowkes

Abstract

We use trade data, expressed as a share of GDP, to explain South Africa's current account deficit and its recent persistence. We find that current account changes are typically a result of movements in net commodity exports and machinery imports. In recent years, machinery imports have been fairly stable as a share of GDP; had they declined as much as they did during the Great Recession, the current account would now be in balance. The deficit did narrow between mid-2014 and mid-2015, due to collapsing oil prices, but from mid-2015 onwards further oil gains have been effectively cancelled out by falling commodity exports. The recent widening of the deficit reflects movements in several smaller categories, including food imports which have increased in response to local drought conditions. Over the longer post-crisis period, imports of consumer durables and semi-durables have also expanded, by a little more than 1% of GDP. Returning these imports to 2010 levels would mitigate but by no means eliminate the current account deficit.

Summary of results¹

South Africa's large current account deficit (CAD) poses several interesting puzzles. It coincides with weak domestic growth, in contrast to the substantial current account deficit of the pre-crisis boom period. It has also been highly persistent, resisting both significant currency depreciation and slowing GDP growth. While the scale of the deficit is partially explained by large income and current transfers payments, changes in the current account balance are chiefly due to the trade balance. Accordingly, this study draws on trade data from SARS and IHS Global Insight to improve our understanding of the deficit.

Our analysis rests on two pillars. First, we identify the volatile and significant components of the trade balance, defined as the imports and exports capable of explaining changes in the overall current account balance. Second, we rely almost entirely on measurements of these variables *expressed as a share of GDP*. This is helpful because it relates them directly to current account discussions: this balance is typically quantified as a share of GDP. It also allows us to sidestep problematic issues of volumes, currency denominations and deflators.

Our inquiry yields several interesting results:

- The big swings in the current account deficit before, during and immediately after the Global Financial Crisis (GFC) are almost entirely explained by just three groupings: (1) oil and oil-related imports, (2) commodity exports (restricted to the top four categories: gold, coal, iron ore and steel, and platinum group metals) and (3) imports of machinery.
- The bulk of the current account narrowing between mid-2014 and mid-2015 reflected the windfall from collapsing oil prices. From mid-2015 onwards, further oil gains have been effectively cancelled out by falling commodity exports; the overall commodity effect has been neutral.

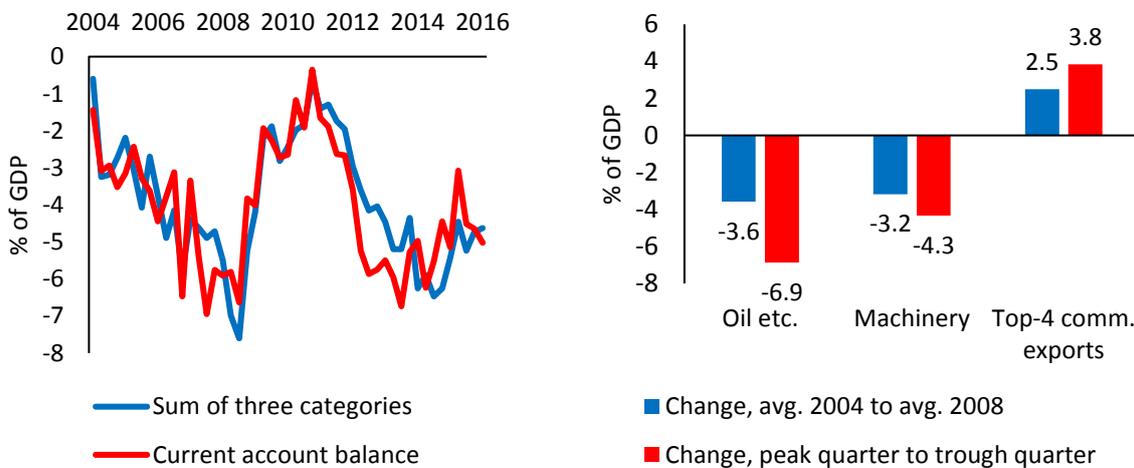
¹ The authors would like to thank Shaun de Jager, Theo Janse van Rensburg, Rudi Steinbach, Erik Visser, Thulisile Radebe and Elmarie Nel for their valuable comments.

- To explain the widening of the deficit in recent quarters, it is necessary to look to a wider range of smaller categories, particularly on the import side. These include food, beverage and tobacco products, likely related to drought. Also implicated are categories such as chemicals and clothes, where volumes have been quite stable but prices have risen.
- Since the crisis rebound, the machinery imports category has been fairly stable as a share of GDP. Had it instead declined as much as it did during the Great Recession, with all other categories remaining unchanged, the deficit would now be closed.
- Imports of consumer durables and semi-durables have expanded since 2010, by a little more than 1% of GDP. This shift is contributing to the present deficit but it is not decisive.
- Disaggregated by country, South Africa's gross exports to China have declined markedly, as a share of GDP, while those to India have picked up. However, the China loss is around twice the size of the India gain. SADC exports (excluding Botswana, Lesotho, Namibia and Swaziland) have improved since the crisis, but have trended lower in recent quarters. Gross exports to the euro area, Japan and the United States have been stable since the crisis. The fact that the US has not claimed a larger share suggests its recovery is not having substantial, direct effects on South Africa.

The rise and fall of the current account deficit, 2004-2010

In the boom years before the GFC, South Africa ran a large CAD. From a position of balance between 2000 and the start of 2004,² the current account deteriorated towards a trough of -6.9% of GDP in the third quarter of 2007. At the time, there were several compelling justifications for maintaining such a large deficit. South African macroeconomic policy had benefitted from sweeping reforms, raising the country's creditworthiness. The economy was growing rapidly, drawing in capital goods as well as foreign savings. As a result, imports of machinery climbed by around 3 percentage points of GDP. Furthermore, with higher world oil prices, general oil and petroleum imports also rose as a share of GDP, with the trough to peak change totalling over 6 percentage points (although the series is quite volatile). Of course, South Africa's commodity exports were also growing; exports of the top four export commodities rose by roughly 3 percentage points of GDP from 2004 to 2008. Therefore – as Figure 1 shows – it is possible to explain much of the pre-crisis CAD simply by accounting for these three categories.

Figures 1 & 2: The current account deficit and major trade components



² The average quarterly figure for that period is 0.04% of GDP.

As the South African economy fell into recession in 2009, the current account balance closed rapidly. Between the third quarter of 2008 and the second quarter of 2009 it narrowed from -6.6% of GDP to just -1.9% of GDP; by the end of 2010 it was almost balanced, at a mere -0.4% of GDP. What changed? Imports of machinery fell by as much as 4% of GDP. Oil related products moved by 4% of GDP. Exports also fell, but less abruptly; the decline in exports for the top four commodities was around 2% of GDP. Comparing the period of the largest deficits (in 2007 and 2008) and the smallest (in 2009 and 2010) suggests the overall change in the CAD (a move of about 5% of GDP) reflects roughly 50% changes to imports of machinery and 40% commodities, leaving only a small fraction to be explained by other factors.³

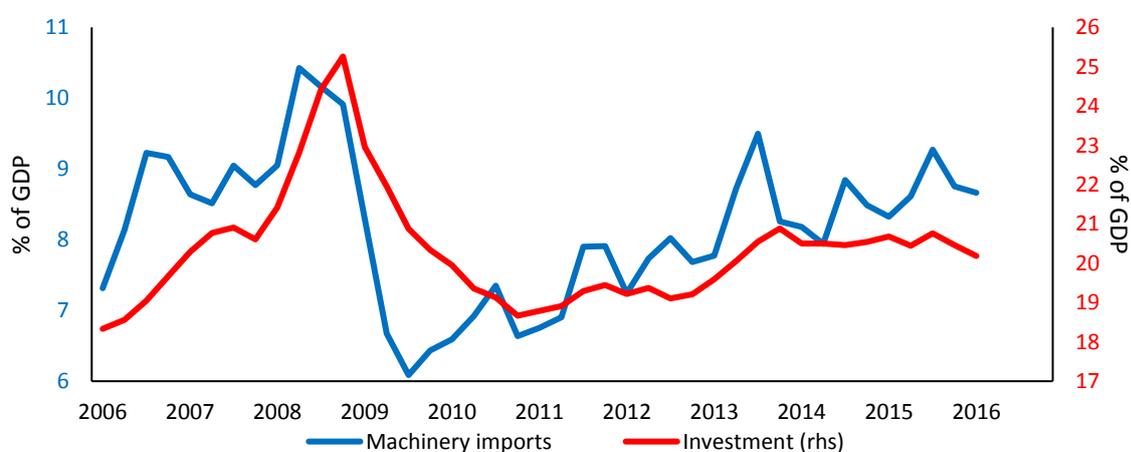
On the current deficit, and how it got so big

In the years after the crisis, the CAD rebounded again, exceeding 5 per cent of GDP in the third quarter of 2012 and surpassing 6 per cent in the middle of 2013. This is mostly explained by two changes.

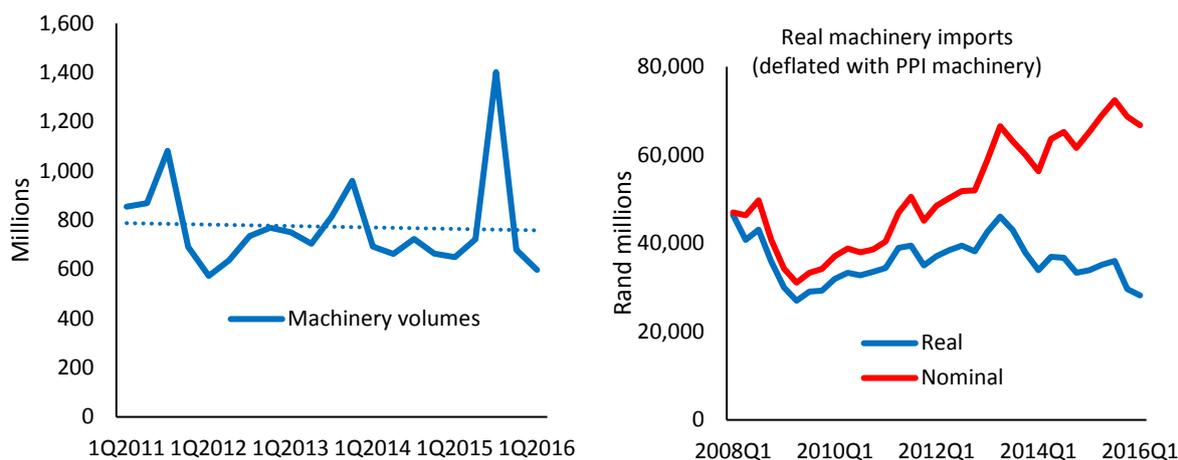
First, oil related imports rose faster than South Africa's commodity exports, reversing the trend that had helped close the deficit following the crisis. From the second quarter of 2009 to the first quarter of 2014, imports in the oil category nearly doubled as the US dollar price of a barrel of oil returned to triple digits. By contrast, South Africa's commodity exports peaked relatively soon after the crisis, exceeding 11% of GDP at the end of 2011, and then began trending steadily lower. The mismatch between weaker commodity exports and rising oil related imports is reflected in South Africa's terms of trade, which deteriorated from 2011 to 2014. It was only in mid-2014 that oil prices finally began behaving like other commodity prices and fell, supporting the current account.

Second, machinery imports also picked up strongly, from barely over 6% of GDP in the depths of the crisis to 9.5% of GDP in the third quarter of 2013. This shift is somewhat harder to explain. During the pre-crisis boom investment rose steadily, from about 18% of GDP in 2005 to more than 23% in 2008; in the post-crisis period it has been fairly stable at around 20% of GDP. Why did machinery imports rise despite stagnant investment? One explanation is that demand for machinery imports is price inelastic, so their rise simply reflects exchange rate depreciation. There is evidence for this in the machinery component of the PPI, which has risen just over 40% from its trough in 2011; the unit value index for metal products, machinery and equipment is up 55% over the same time frame. Import volumes, meanwhile, have been volatile but flat; the trend is narrowly down.

Figures 3, 4 & 5: Total investment, machinery imports and price effects

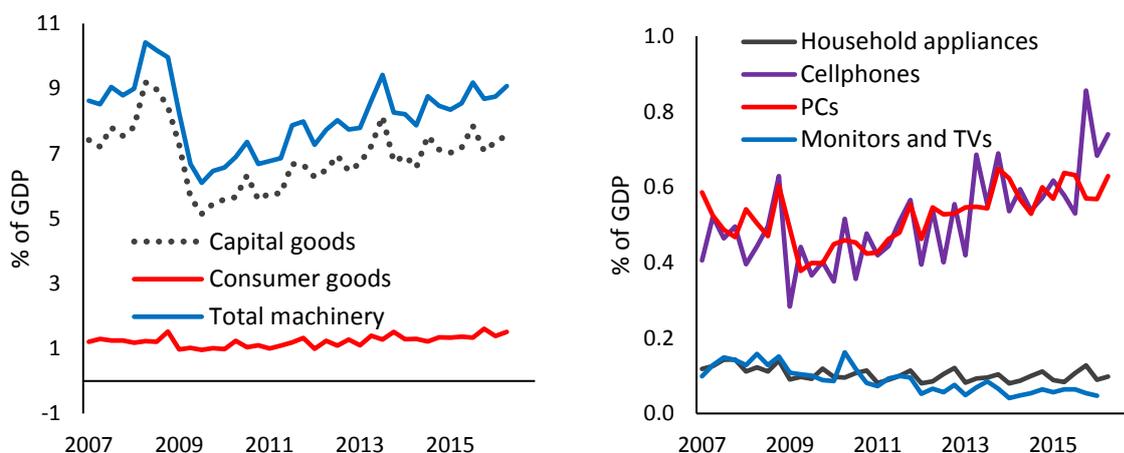


³ Plausible candidates are imports of transport equipment and vehicles, both of which adjusted abruptly to the recession.



Another possibility is that the composition of machinery imports switched from investment goods (such as mining equipment) to consumer goods (like smart phones). There is some limited evidence for this: imports of consumer machinery⁴ have risen from just over 1% of GDP in 2010 to 1.4% in 2015. But they are still a relatively small share of the total, at not more than 19% of machinery imports in any post-crisis quarter. We return to the problem of consumer imports later.

Figures 6 & 7: Disaggregated machinery imports



Rebalancing, interrupted

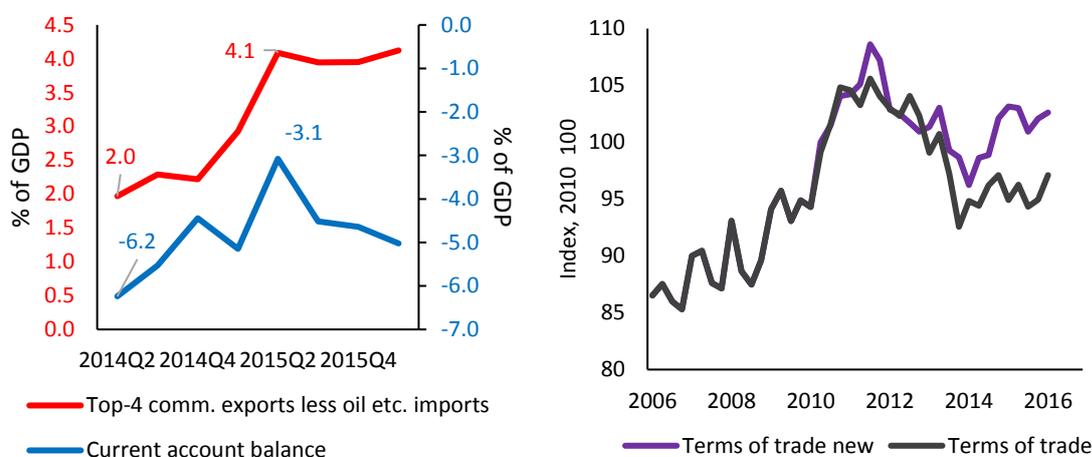
From the second quarter of 2014 to the second quarter of 2015, South Africa's CAD halved, from 6.2% of GDP to 3.1%. This was a welcome development, mitigating the country's vulnerability to a global financial environment that had become less favourable for emerging markets, particularly those with large CADs. It also suggested the economy was flexible, able to respond to exchange rate incentives and rebalance. However, in contrast to the adjustment that occurred in 2009 and 2010, machinery imports actually increased slightly over the period. There was also significantly greater reliance on commodity price

⁴ Defined as household appliances, cell phones, monitors and TVs and personal computers. At least some of these items, especially personal computers, should be classified as business investment, but it is not possible to separate the two given the available data.

movements, which explain about two thirds of the observed rebalancing.⁵ Imports of oil and related products collapsed with the fall of world oil prices, from around 6% of GDP in early 2014 to under 4% in 2015 (and 2.5% of GDP in the first quarter of 2016, a level last seen in 2005). Meanwhile, commodity exports were more stable, staying close to 8% of GDP throughout the rebalancing period. The result was an oil windfall. It was not, as might have been hoped, a process of import-substitution and export-expansion driven by exchange rate depreciation.

This also helps explain why rebalancing was not sustained. From the second half of 2015, as commodity prices fell across a broad front, SA's commodity exports re-synchronised with oil imports. To put it another way, the gains from cheap oil were once again balanced out by losses from export commodities (see Figure 3).

Figures 8 & 9: Commodities and the current account deficit



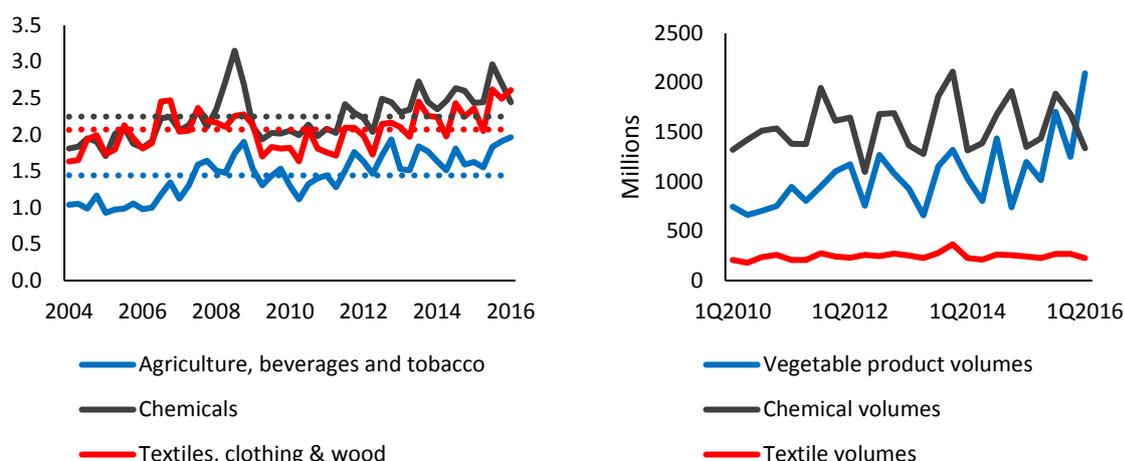
The fact that commodity balances turned neutral after mid-2015 helps explain why the CAD ceased narrowing. But it does not explain why it deteriorated again, expanding by around 2 percentage points of GDP from the second quarter of 2015 to the first quarter of 2016. Once again, imports of machinery played no active role, continuing broadly unchanged.⁶ Much the same applies to vehicles and transport equipment, two categories which adjusted sharply during the Great Recession but have been stable over the recent period.

Part of the CAD re-widening comes down to growing imports in three categories: clothing and textiles, chemicals, and agricultural products, beverages and tobacco. All of these have shifted above their longer term averages since 2013; had they maintained their share of GDP recorded in the second quarter of 2015, the current account deficit would have been around 1 percentage point smaller in the fourth quarter of 2015 and the first quarter of 2016. Import volumes (from the DTI) have been relatively unchanged for textiles and clothing, as well as chemicals, suggesting exchange rate depreciation is to blame. Volumes of vegetable products have increased markedly, however, presumably in response to domestic food shortages caused by drought. Apart from these three categories, no other major culprits are obvious in the data. The period under examination is also quite short, so data volatility makes it harder to identify the patterns.

⁵ It is possible to explain the other third by invoking just one more factor: exports of motor vehicles picked up substantially from mid-2014, adding almost a full percentage point of GDP to the current account balance.

⁶ The values for machinery imports over the recent deterioration period are 8.6% of GDP for 2015Q2, 9.3% for 2015Q3, 8.8% for 2015Q4 and 8.7% for 2016Q1. The corresponding numbers for the CAD are -3.1, -4.3, -5.1 and -4.3.

Figures 10 & 11: Shares and volumes of three significant contributors to CAD widening

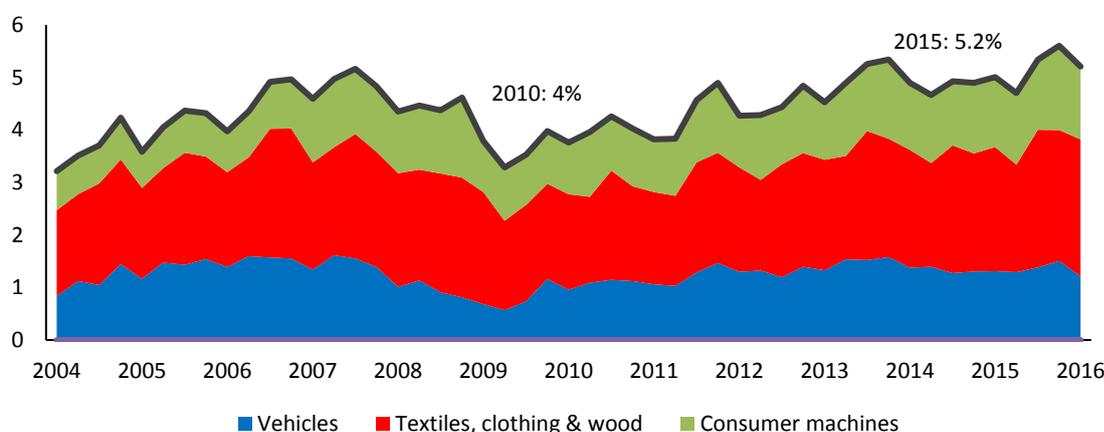


Should we blame consumption?

One compelling theory of the current account deficit holds that it represents demand leakage from stimulatory macroeconomic policy. Given that South Africa's potential growth was overestimated through much of the post-crisis period, it is possible that policy attempts to return the economy to growth rates over 3% might instead have created excessive demand. In particular, the combination of low interest rates and a fiscal stimulus which was largely captured by public sector employees might well have produced a boom in consumption of durables and semi-durables (such as cars, phones and clothing). This theory has the attractive implication that the current account deficit could be narrowed quite cheaply. Reduced consumption would not have the same effects on longer-run potential growth as reduced investment. Furthermore, the short term growth consequences would be minimised for South Africa as lower imports would raise net exports, even if some vendors would lose their profit margins on re-selling imported goods.

The data provide some support for this hypothesis. Imports of consumer-related durables and semi-durables have risen from about 4% of GDP in 2010 to 5.2% of GDP in 2015 (although some of these are likely intended for re-export or should be classified as investment). Reversing this change would therefore remove as much as a quarter of the prevailing CAD. This is a meaningful change, but insufficient to rebalance the current account. Capital goods and commodities remain the key swing variables.

Figure 12: Imports of consumer durables and semi-durables

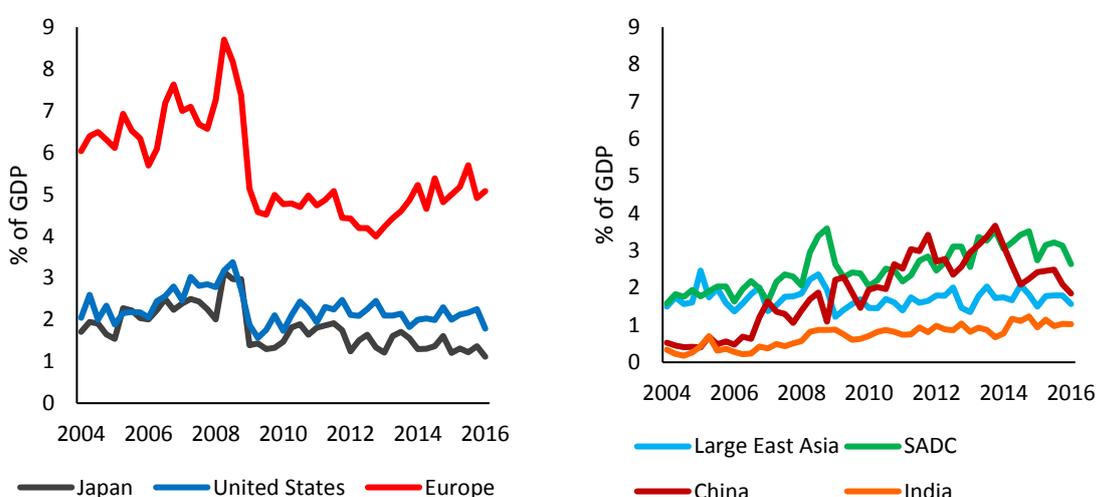


On export partners

The same data used above may also be used to explore changes in exports to our major partners. As is widely known, China is South Africa's single largest export partner; Chinese demand has also fallen as it rebalances away from investment-led growth to consumption. This is plainly visible in the data: exports to China peak at 3.7% of GDP at the end of 2013 (although not, interestingly, at the terms of trade high point of 2011), and have since then declined to under 2% of GDP. India has been mooted as a possible replacement for China, and exports to India have indeed risen. The change, however, is only about 0,5% of GDP since the GFC, a fraction of the lost exports to China. SADC exports (excluding the BLNS countries) have also improved since the crisis, by around 1 percentage point of GDP, although they have weakened in the most recent quarters.

Of the advanced economies, exports to the USA, Europe and Japan have not returned to pre-crisis peaks, measured as a share of GDP. The scale of the decline in the European case is especially striking: exports averaged 7.8% of GDP in 2008; for 2015 they were down to 5.2%. Of course, European economic performance has been extremely weak, with two recessions in the euro area in just six years, so one might expect subdued import demand. The United States, however, has had a more robust recovery, which should have generated spill overs to other countries, including South Africa. Yet exports to the US have been stable close to 2% of GDP since the crisis, suggesting its recovery is not making it a relatively more attractive export market for South Africa.

Figures 13 & 14: Exports to various major markets⁷



⁷ 'Large East Asia' comprises Australia, Hong Kong, Malaysia, Philippines, Singapore, South Korea and Taiwan. Japan and China are shown separately. 'SADC' excludes the BLNS countries. Including them, plus the sub-Saharan African countries not in SADC, would make SSA South Africa's largest regional export destination.

Conclusion: implications

The obvious takeaway from this study is that current account changes are typically a result of movements in net commodity exports and machinery imports, all expressed as shares of GDP. Commodity outcomes seem largely beyond domestic control. At present, world markets are oversupplied and prices are low, which will serve to shutter marginal producers and re-equilibrate supply and demand. This process is painful but necessary. The consolation for South Africa is that commodity imports are also cheaper. The collapse in the oil price was an important factor in the current account narrowing of 2014 and 2015; unfortunately, if South Africa's terms of trade behave as forecast, there will be no additional support from commodity prices over the next few years.

Machinery imports have not collapsed as they did during the crisis. If they did the CAD would close. This is not necessarily desirable: a CAD is preferable to a recession. But growth is already very low and machinery imports remain persistent: we may get a large current account deficit *and* a recession. One problem is that the exchange rate is less likely to recover while the CAD remains large, but currency weakness itself drives up the share of GDP spent on inelastic machinery imports, sustaining the deficit and exacerbating and weakness.

A second concern is that the investment expenditures driving capital imports have not – so far – generated growth, perhaps because of inefficiency or lags between incurring the investment costs and achieving results. (The Medupi and Kusile power plants are examples of both phenomena.) The no growth/large CAD/sustained investment puzzle might be resolved by rising growth as investment finally comes on stream. A better growth story would in turn help the exchange rate and render the current account deficit more defensible.

The import story is not all about investment; it has a consumption element. In recent quarters food imports have increased, which is an appropriate response to domestic drought. Over the longer post-crisis period, imports of consumer durables and semi-durables have also expanded, by a little more than 1% of GDP. Returning these imports to 2010 levels would mitigate but by no means eliminate the current account deficit.

There are several opportunities for further research. One is to identify variables that may behave differently in future. We have established that changes in the current account balance typically follow net commodity exports less machinery imports, but gross exports and imports are much larger than these categories and a different kind of CAD adjustment could be possible. Another is to consider how various import categories respond to variables such as long and short term interest rates and the exchange rate. This may establish more clearly the efficacy of policy tools and help explain the missing J-curve. A third task is to disentangle price and volume effects more cleanly.