

# CONJONCTURE

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By François Faure

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# India: twin balance sheet problem

Johanna Melka

*For Narendra Modi, everything seems to be going his way. In 2016, India's economy reported one of the strongest GDP growth rates, macroeconomic fundamentals have consolidated, reforms are advancing and Modi's party won a major victory in the most recent legislative elections. Yet the government must now deal with the deterioration in India's public-sector banks, which is hampering loan distribution and holding back corporate investment. The authorities intend to create a centralised special purpose vehicle, but public funding of a bad bank risks undermining the current fiscal consolidation movement.*

Since Narendra Modi took power in May 2014, India has consolidated its macroeconomic situation. In 2016, GDP per capita rose 6.2%, one of the strongest performances in the emerging countries, and growth prospects are looking upbeat. The International Monetary Fund (IMF) projects that economic growth will range between 7.2% and 8.1% by 2021. Reforms have accelerated for nearly three years now, and Narendra Modi still enjoys widespread popular support, as illustrated by his party's victory in March legislative elections.

Macroeconomic fundamentals have also consolidated. Inflation has slowed sharply to an average of 5% in 2016, down from 6.6% two years earlier. At the same time, the decline in commodity prices has significantly reduced India's external vulnerability. The current account deficit is expected to drop below 1% of GDP in 2016, from nearly 2% of GDP in 2014. Moreover, buoyed by an improved business climate, foreign direct investment accelerated to 2% of GDP, 1-point higher than in 2014. At the end of September 2016, India's net external deficit was equivalent to 16.7% of GDP, down from 17.9% of GDP in 2014. At the end of 2016, foreign exchange reserves covered the country's short-term external financing needs 1.6 fold. Although public finances have improved, they are still the Achilles' heel of the Indian economy. In fiscal year 2016/2017 (ended 31 March 2017), the government deficit is estimated at 3.5% of GDP, one point less than it was two years earlier. Although the country's tax base is still very weak (10.2% of GDP), the government managed to pass the Goods and Services Tax (GST) law in July 2016, which could be implemented in July 2017. In time, the GST should boost government revenues and the country's growth potential by improving the competitiveness of companies.

Even though the country's macroeconomic situation has consolidated, it is still weak from a microeconomic perspective. For the past five years, companies have had to cope with a sharp increase in debt servicing charges, at a time when earnings are slowing. Mirroring the deterioration in the corporate financial situation, the quality of assets in the banking sector has also deteriorated, which has sharply eroded bank balance sheets, notably for public-sector banks.

The weight of non-performing loans is so high that it is now hampering the distribution of bank loans. As a result, the Indian authorities are considering the creation of a centralised special purpose vehicle to clean up the balance sheets of public-sector banks.

To understand the scope of India's microeconomic problems, in the first part of this study we propose to examine corporate trends, notably by focusing on private non-financial companies. In the second part, we will focus on the deterioration in bank balance sheets, notably for public-sector banks. We will then look at the various solutions that have emerged to try to clean up India's banking sector.

## The fragility of Indian companies

The financial situation of Indian companies began to deteriorate in 2011. In the period 2006-2011, debt increased by more than 20% a year on average to reach 50.1% of GDP at year-end 2011, a 10-point increase in just five years. This rapid increase in debt was sustainable as long as the macroeconomic environment was very buoyant. But after an initial shock in 2008-2009, Indian companies were weakened again as of 2011, when economic growth slowed and infrastructure projects were postponed or cancelled. In 2011, interest expenses began to grow at a faster pace than corporate earnings. The interest coverage ratio (EBITDA/interest expense) dropped from 5 in 2011 to 2.8 in 2013. Indian companies were then hit by a third shock between 2014 and early 2016, which was triggered by the sharp drop in metal prices.

To face up to the deterioration of their financial situation, Indian companies entered a debt reduction phase as of 2013. According to the Bank of International Settlements (BIS), the total debt of Indian non-financial companies (NFC) was trimmed to USD 1023 bn at the end of June 2016, equivalent to 49.5% of GDP, compared with nearly 53% of GDP in 2013.



From a macroeconomic perspective, India's debt to GDP ratio is not especially high, and it is even lower than in many of Asia's emerging countries (see chart 1). In contrast, company data show that the largest companies have a much lower capacity to cope with debt servicing charges than those in the other emerging countries (see chart 2). According to the IMF<sup>1</sup>, the interest coverage ratio<sup>2</sup> (ICR) of Indian companies was 3.7 in June 2016, compared with 5.5 in China, 6.5 in the Philippines, 7.7 in Thailand, and 8.4 in Malaysia.

## Non-financial companies debt

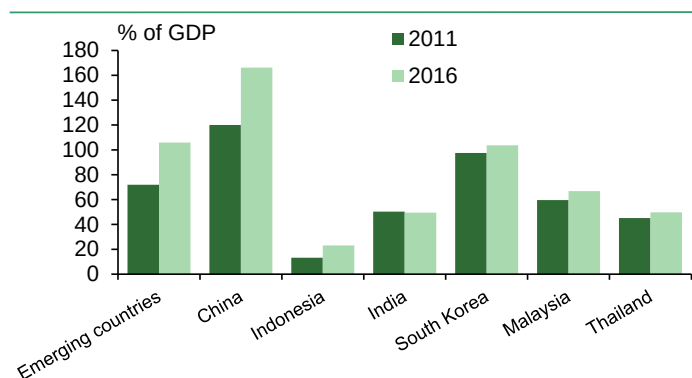


Chart 1

Source: IMF

## Interest coverage ratio (profit/interest expense)

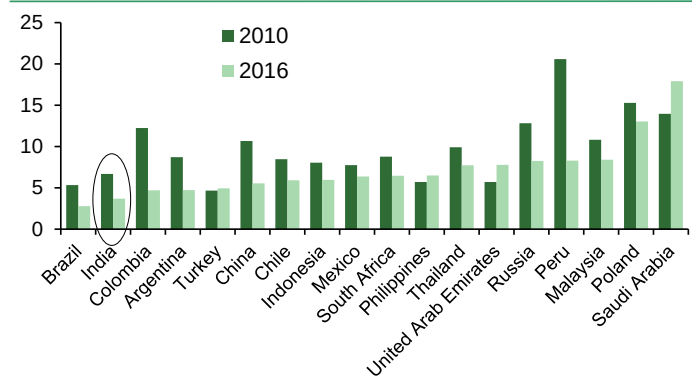


Chart 2

Source: IMF

Moreover, the share of stressed loans<sup>3</sup> is high (41% according to a Crédit Suisse report of 3700 listed companies<sup>4</sup>) and highly concentrated

(50 companies account for 71% of the stressed loans, according to the finance ministry<sup>5</sup>).

Yet the situation is much less alarming for private companies alone, which account for only 14.7% of stressed loans. Moreover, the situation continues to deteriorate for public-sector companies, while that of private companies has consolidated over the past 12 months (stressed loans accounted for 27% of the total in September 2015).

In our analysis, we will focus on the situation of private non-financial companies due to the lack of data available on public-sector companies.

## The situation of private companies has consolidated since Q1 2016

Our analysis of the financial situation of India's private companies is based in part on central bank data covering the situation of 2700 listed companies.

In September 2016, their situation was generally more satisfactory than in the previous period:

- 14.5% of private non-financial companies were considered to have excessive debt ratios (companies with negative gross operating income or a debt-to-equity ratio equal to or higher than 2), which is nearly 5 points less than in September 2015. The debt of the most vulnerable companies now accounts for only 16% of total debt, nearly 14 points less than the previous year (see chart 3).

## Companies whose earnings do not cover interest expenses (ICR < 1)

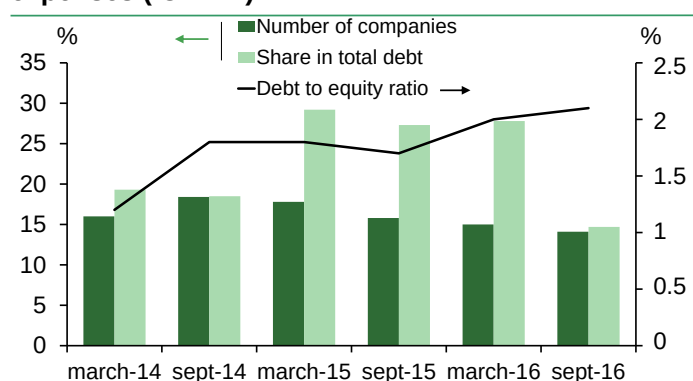


Chart 3

Source: RBI

<sup>1</sup> Global Financial Stability Report, October 2016

<sup>2</sup> EBITDA/interest expense

<sup>3</sup> The share of debt with companies whose earnings fail to cover interest payments.

<sup>4</sup> Crédit Suisse looks at the data from 3700 non-financial companies.

<sup>5</sup> Economic Survey 2016-2017



### High leveraged companies

|                                | Number of companies (% total) |                |            |                | Share in debt (% total) |                |            |                |
|--------------------------------|-------------------------------|----------------|------------|----------------|-------------------------|----------------|------------|----------------|
|                                | March 2015                    | September 2015 | March 2016 | September 2016 | March 2015              | September 2015 | March 2016 | September 2016 |
| Negative net worth or DET >= 2 | 19                            | 19.4           | 14         | 14.5           | 33.8                    | 30.5           | 20.6       | 16             |
| Negative net worth or DET >= 3 | 14.2                          | 15.3           | 12.9       | 13.5           | 23                      | 24.9           | 19         | 14.5           |

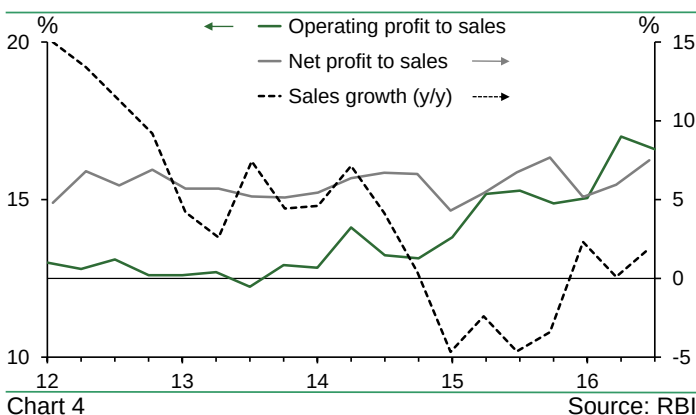
Table 1

Source: RBI, 2700 non financial private companies

\*DET (Debt-to-Equity ratio)

- On the whole, the debt-to-equity ratio of all private non-financial companies was 32% in September 2016, down from 38% in September 2015.
- Profits stopped contracting as of end 2015 and swung back into positive territory in Q1 2016 (see chart 4).

### Private non-financial companies



- Profitability rose to the highest point in more than 5 years: net profit margins (% of sales) rose to 8.7%, 1 point higher than in 2015.
- Interest expenditures diminished and accounted for only 26.2% of earnings before interest and tax (EBIT), compared with 30.3% in September 2015.
- EBIT covered interest expenses 3.8 fold at the end of September 2016.
- At the end of September 2016, only 14.7% of the debt of listed private non-financial companies was held by companies who lacked sufficient revenues to cover interest payments<sup>6</sup>, down from 27% the previous year.

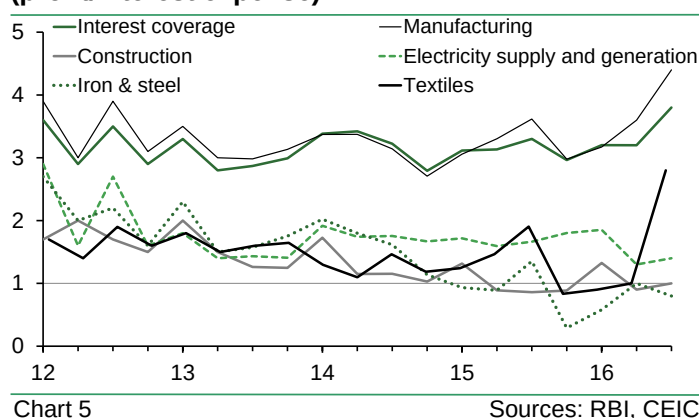
Nonetheless, the situation still varies widely depending on the sector of activity.

<sup>6</sup> Financial Stability Report, BIS, December 2016

### Very disparate situations depending on the sector

An analysis of the balance sheet structure of companies by sector of activity shows that the most fragile private companies (those with negative EBIT or whose with ICR below 1) are in the iron & steel and construction sectors. Moreover, the financial situation of companies in the energy sector, notably electrical power generation and distribution, has deteriorated sharply over the past 12 months, even though pre-tax revenues are still generally high enough to cover interest expenses (ICR above 1) (chart 5).

#### Interest coverage ratio (profit/interest expense)



Iron & steel is still the most fragile sector. The central bank estimates that 28.6% of steel companies were in stressed situations in September 2016. These companies accounted for 36.7% of sector debt<sup>7</sup>. Working from survey data, we do not have information on the value of sector debt as a whole. However, bank loans to sector companies amounted to USD 47 bn at year-end 2016, the equivalent of 2.1% of GDP.

The deterioration in the financial situation of iron and steel companies can be attributed to the sharp increase in debt between 2011 and 2014, at a time when metal prices were especially high. After metal prices fell (by more than 42% between mid-2014 and early 2016), sales declined for six consecutive months, triggering a contraction in earnings. Since

<sup>7</sup> In Q3 2016, on the whole, corporate revenues only covered interest expenses 0.8 times.



Q2 2016, the overall situation has picked up slightly<sup>8</sup>, especially for the biggest sector companies, buoyed by higher international metal prices. Yet profits were still too small to cover interest expenses (the interest coverage ratio, ICR, was 0.8 in Q3 2016).

The financial situation of construction companies is also fragile, and continued to deteriorate through September 2016. On the whole, earnings just barely suffice to cover interest payments. According to central bank estimates, 32.6% of their debt is stressed. Yet the construction sector accounts for a small share of total bank lending (1.6%). At year-end 2016, loans granted to sector companies amounted to only USD 11.7 bn, the equivalent of 0.5% of GDP.

In the energy sector, the financial situation of private companies is not as fragile as in the iron & steel and construction sectors, but it has deteriorated over the past six months. At Q3 2016, net profits covered interest expenses only 1.4 times, down from 1.7 times the previous year. This deterioration reflects the increase in debt as part of major investment programmes (lending increased 19% a year on average in 2010-2015), which have yet to generate the expected earnings. There are two explanations for this. First, effective electrical power generation only reached 59.6% of potential output in H2 2016. Second, electricity prices are still far below costs. In some states, prices have not increased for more than 10 years<sup>9</sup>, creating losses for power distribution companies, which in turn are unable to meet their commitments to power generating companies. Loans to sector companies accounted for more than 10% of total credits at the end of December 2016, the equivalent of 3.5% of GDP.

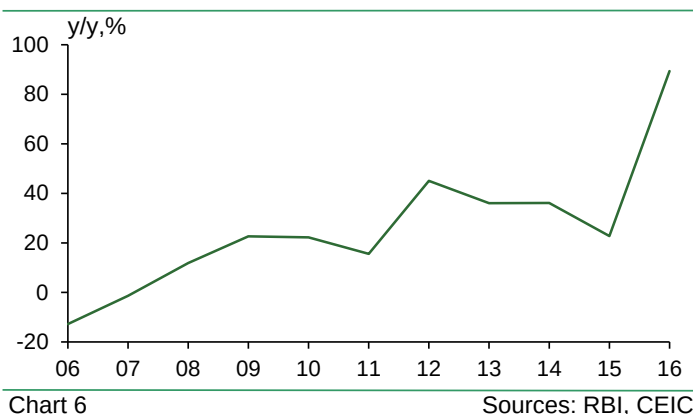
As to transport and telecommunications, even though these two sectors are highly leveraged, with debt exceeding 150% of equity, in Q3 2016, earnings generally covered interest payments by more than 3x and 2.5x, respectively. In air transport, however, financial situations deteriorated in the second half when oil prices rebounded, driving up spending by the airlines. As a result, Jet Airways (market share of more than 38%) reported an interest coverage ratio of only 0.9 at the end of the year.

## Public-sector banks: sharp rise in risks

The deterioration of India's corporate situation since 2011 has generated a sharp increase in credit risks. Non-performing loans (excluding restructured loans) have increased more than 44% a year on average over the past five years (see chart 6), and 75% of these loans are concentrated in public-sector banks. There is a massive need for recapitalisation, and the government has made capital injections. Despite its support for public-sector

banks, the Indian government is seeking to limit their recapitalisation through public funds in order to limit the risk of budget overruns.

### Increase in non-performing loans



### Significant increase in non-performing loans

At the end of September 2016, for the Indian banking sector as a whole, non-performing loans accounted for 9.3% of total loans outstanding (which is a much higher ratio than in the other emerging countries of Asia). Stressed loans (non-performing loans and restructured loans) amounted to 12.3% of loans outstanding (a 5-point increase in five years), or 4.2% of GDP. Yet according to India's finance ministry, to measure all of the loans that risk not being repaid, we must also take into account unrecognised stressed loans, i.e. loans to companies whose revenues fail to cover interest payments. At the end of September, the finance ministry estimated that "stressed" loans accounted for 16.6% of all bank loans outstanding (and 20% of public-sector bank loans), equivalent to 8.7% of GDP.

This strong increase in problem loans reflects not only the deterioration in the quality of bank balance sheets, but also the reclassification of "restructured loans" as "non-performing loans" following a vast programme to "recognised stressed loans"<sup>10</sup>, which India's central bank set up in late 2015 to compel banks to set aside bigger provisions for stressed assets. Even so, non-performing loans and restructured loans continued to swell: despite a slight improvement in the financial situation of private companies over the past year, the situation of public companies continued to deteriorate. Moreover, in certain sectors of activity (notably infrastructure and metals), all companies are still in precarious situations.

<sup>8</sup> In Q1 2015, more than 50% of the sector's debt was stressed (vs. 36.7% in Q2 2016).

<sup>9</sup> Prices average INR2.5/kwh, but the average price to cover costs is INR4/kwh.

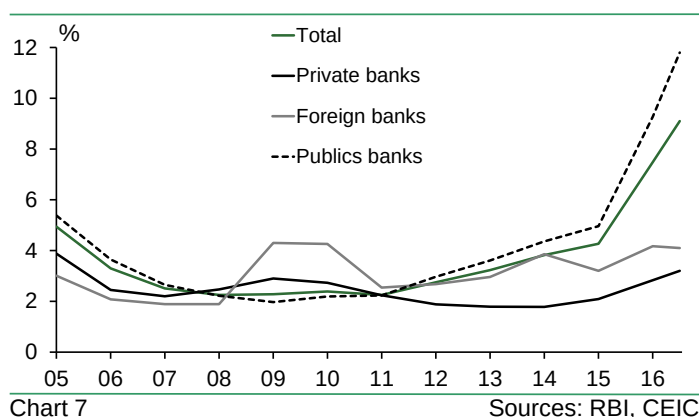
<sup>10</sup> The Asset Quality Review should be completed by 31 March 2017.



## Risks are concentrated in public-sector banks

At the end of September 2016, 89% of non-performing loans were held by public-sector banks. The non-performing loan ratio was 11.8% for public-sector banks, compared with only 3.2% for private banks, and 4.1% for foreign banks (see chart 7).

### Non-performing loan ratio per bank



After integrating restructured loans, the central bank estimates that stressed loans accounted for 15.8% of loans outstanding for public-sector banks, compared with only 4.6% for private banks. For public-sector banks, the total amount of "stressed" loans has increased 21-fold in five years, while at the same time, their total loans outstanding increased only 1.8-fold.

The concentration of non-performing loans among public-sector banks is largely due to a problem of governance. Indeed, sometimes, political goals interfere with the governance of public banks and credit risks policy.

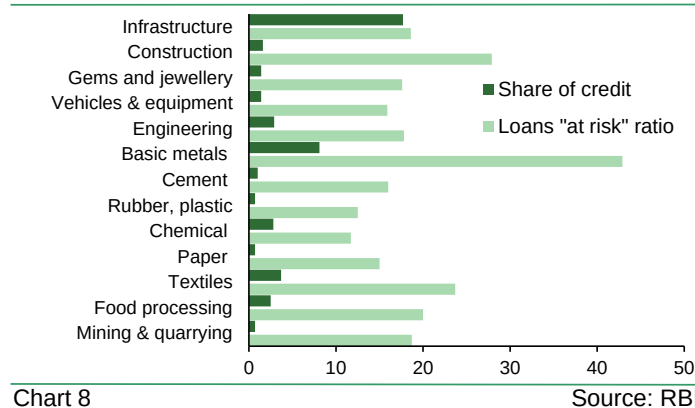
The majority of stressed loans are concentrated in the industrial sector, which receives 51% of corporate loans. According to India's central bank, at the end of September 2016, stressed loans accounted for 22% of total loans granted to the industrial sector, compared with only 7.2% and 8.3%, respectively, in agriculture and the services sector.

Within the industrial sector, stressed assets are mainly concentrated in metals, construction and infrastructure, the sectors of activity that we have already identified as being the most fragile, based on the situation of private non-financial companies. In these three sectors of activity, stressed loans exceeded 43%, 28% and 18%, respectively, of loans granted at the end of September 2016. Corporate loans in the most risky sectors – infrastructure in the broad sense of the term (including energy)<sup>11</sup>, metals and construction

<sup>11</sup> In infrastructure, in the broad sense of the term, the deterioration of corporate financial situations results in part from administrative red tape, which generates major delays and

– accounted for 21% of total banking sector loans (including household loans) in January 2017, the equivalent of 9.4% of GDP (chart 8).

### Concentration of loans "at risk" by sector (non-performing and restructured loans, %)



Other sectors reported stressed loan ratios of over 15%. This is notably the case for mining, food, textiles, paper, cement, engineering, transport equipment and jewellery.

## Huge recapitalisation needs, only partially covered by the state

In response to the increase in non-performing loans, Indian banks have set aside more provisions. But in its latest December 2016 report, the central bank estimated that a total of 33 banks (74% of loans) did not have enough provisions to cover expected losses. These 33 banks include all of the public-sector banks, whose provisions at end of September 2016 covered only 5.8% of loans outstanding, while the central bank estimates future losses at 7.5% of loans outstanding.

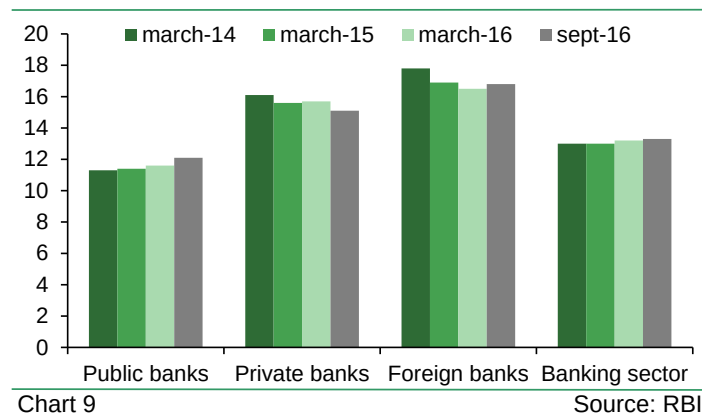
On the whole, based on the stress scenario of its stress tests, the central bank estimated at the end of December 2016 that the losses of public-sector banks (anticipated or under baseline scenario) would not exceed the present level of total capital. Yet this would not be the case for all banks taken individually. Five public-sector banks and one private one (which together account for 7% of all bank loans outstanding) would report losses that exceed capital in case of a baseline shock.

even project cancellations. Public companies launched structural work on infrastructure projects in response to the country's enormous needs. Their debt increased 2-fold over the period 2010-2015. Faced with major delays and even the suspension of projects, as well as poor cost assessments (due in part to environmental and legal reasons), their profits plunged and their financial situations deteriorated sharply.

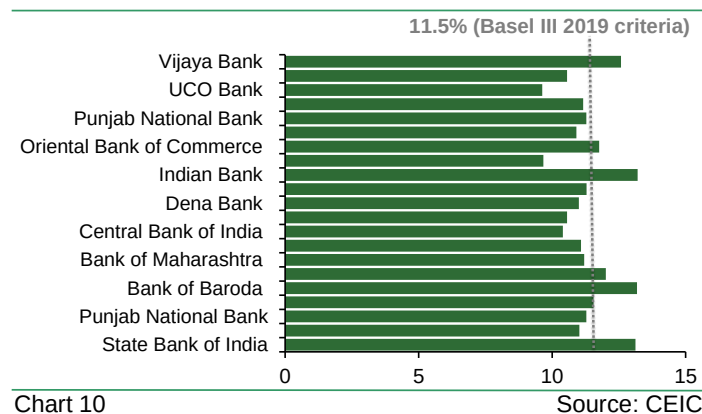


At the end of September, public-sector banks reported capital adequacy ratios (CAR) of about 12% (chart 9). In comparison, private banks had a CAR ratio of about 15%, and the ratio for foreign banks was closer to 17%. On the whole, the public-sector banks did not have enough equity capital to meet the projected Basel III requirements for 2019. At the end of March 2016, 14 out of 21 public-sector banks and 3 out of 19 private banks had solvency ratios of less than 11.5%, the level required by 2019 (chart 10).

### Capital Adequacy Ratio (%)



### Capital Adequacy Ratio public banks (March 2016, %)



In February 2017, depending on the provisioning rate used, the IMF estimated the Indian banking sector's capital needs at between 1.5% and 4.2% of GDP (for loan provisioning rates of between 40% and 70%)<sup>12</sup>. For public-sector banks alone, the recapitalisation cost would range between 1% and 2.8% of GDP. Yet the IMF's estimate of stressed loans is much lower than the ministry of finance's estimate. According to IMF estimates, only 25% of restructured loans risk being

transformed into non-performing loans. The IMF also does not take into account unrecognised stressed loans: loans to companies that cannot meet interest payments. In June 2016, the Fitch rating agency estimated that to comply with Basel III requirements by 2019, India's entire banking sector would need fresh capital of USD 90 bn (about 4% of GDP). Public-sector banks alone account for 83% of this figure.

For the moment, the Indian government only intends to inject a total of INR 700 bn, the equivalent of USD 10.4 bn (0.5% of GDP). Since fiscal year 2015/2016, it has already injected nearly INR 500 bn (0.4% of GDP) and will inject an additional INR 100 bn in 2017/2018 and 2018/2019. Given the deterioration in the balance sheets of public-sector banks<sup>13</sup>, it is hard to imagine that they will manage to raise market funds equivalent to about 3% of GDP. Yet the government's budget proposal for fiscal year 2017/2018 does not mention any spending increases to cover additional recapitalisation of the banking sector.

### Towards the creation of a bad bank?

Since 2014, the Indian monetary authorities have taken several measures to try to clean up bank balance sheets (see box). So far, however, significant progress has not been made. The ailing public-sector banks are placing an increasingly heavy damper on loan distribution, which strains economic activity, and private investment in particular. At the end of January 2017, corporate lending increased by only 1% year-on-year (yoy), and contracted by 5% yoy in industry.

The finance ministry, in its latest economic update<sup>14</sup>, estimated that new debt write-offs would be inevitable in order to clean up bank balance sheets. It estimates that 33 of the 100 most fragile companies would need to reduce their debt by 50% to 75%. Yet it is hard to imagine that any debt write-offs could occur in a spontaneous and decentralised manner, because the most fragile companies' debt seems to be spread widely within the banking sector.

The most effective solution would be the creation of a centralised special purpose vehicle (SPV), or "bad bank". All of the banks' non-performing loans could be pooled together within the same ad hoc legal entity, which would solve the problem of the dispersion of same company's bank loans to several banks. This solution would also allow banks to concentrate on their core lending business rather than on debt collection. It is still vital to recapitalise certain banks so that they can consolidate their balance sheets, comply with international capital adequacy requirements by 2019 and resume their lending activities.

<sup>12</sup> IMF, Article IV, February 2017

<sup>13</sup> The profitability of public-sector banks fell sharply. In September 2016, public-sector banks reported negative ROA and ROE.

<sup>14</sup> Economic Survey 2016-2017



Box

**Measures taken by India's monetary authorities since June 2014 to clean-up bank balance sheets**

June 2014: Under the "5:25 scheme", the first measure taken by the monetary authorities to cope with a surge in credit risks, borrowers were given more time to meet their commitments. Convinced that companies were only facing temporary problems, the authorities allowed banks to extend the duration of loans to 25 years with interest rate adjustments every five years. This measure also helped reduce provisioning costs for banks. Yet companies' problems kept getting worse, due to falling commodity prices and the postponement of infrastructure projects.

August 2014: the central bank authorised the creation of private special purpose vehicles: Asset Reconstruction Companies (ARC), which are designed to purchase non-performing loans from commercial banks. The government also authorised foreign investors to take equity stakes of up to 100% in the ARC. Yet over the past two years, the banks have sold only 5% of their non-performing loans, because buyers were not attracted by the small discounts the banks were willing to accept on the value of their impaired loans.

June 2015: Faced with rising credit risks, the central bank set up the Strategic Debt Restructuring programme, which authorises a consortium of banks to convert all or part of their corporate debt into equities, so that the creditors become majority shareholders and can take control of the companies in default. Yet most companies refused to convert their loans into shares under these conditions. Consequently, loan restructuring has been rather limited.

October 2015: The Asset Quality Review, a vast review of bank portfolios, was conducted to compel banks to reclassify restructured loans into non-performing loans and to set aside sufficient provisions to cover their stressed loans. Banks had until 31 March 2017 to review all of their portfolios and to increase their provisions to cover unrecognised stressed loans.

May 2016: the bankruptcy law was adopted to reform the regulatory procedures governing debt collection, which should considerably ease the debt restructuring process in the banks' favour. Currently, the debt collection rate is only 25.7% in India, compared to 31.2% in Indonesia, and 81.3% in Malaysia. Moreover, in India, it takes an average of 4.3 years for banks to settle a default, compared to only 1.9 years in Indonesia and 1 year in Malaysia. The goal of the Indian monetary authorities is to reduce this period to 180 days.

June 2016: The debt restructuring programme set up the previous year is modified and replaced with a new programme: the Scheme for Sustainable Structuring of Stressed Assets (S4A). Banks are now allowed to distinguish between the recoverable part of the debt from that which cannot be recovered. To be eligible for this new programme, 50% or more of the debt must be recoverable. An independent agency must estimate the recoverable proportion of the debt. The non-recoverable part can be transformed into ordinary or preferred shares. Under this new programme, the banks will only need to provision 20% of total loans outstanding, or 40% of the non-recoverable share of the debt. Moreover, unlike the previous restructuring programme, under S4A, banks will not have any say over corporate management.

*But this leaves one big question unanswered: who will finance the "bad bank"?*

India's finance ministry and the Deputy Governor of the Reserve Bank of India have both provided some indications as to how this question could be answered. The finance ministry proposes to create a Public Sector Asset Rehabilitation Agency (PARA) with three sources of funding: 1) government bond issues, 2) the financial markets (by opening PARA's capital to investors) and 3) the sale of public securities held by the central bank and transferred to the PARA.

Viral Acharya, Deputy Governor of the Reserve Bank of India, proposed a second solution in February. He proposes creating two special purpose vehicles or asset management companies to reduce the burden on public finances: one private (Private Asset Management Company) and the other public (National Asset Management Company), which would purchase and centralise all non-performing loans. Under Viral Acharya's proposal, the private asset management company (like the one in Spain) would concentrate on the least problematic loans (which RBI's Deputy Governor defines as metals, construction, telecommunications and textiles) while the national asset management



company would mainly purchase the debt instruments of energy-sector companies. This solution would help contain, at least partially, the costs for the government, because the capital of the two asset management companies would be open to investors.

#### *What would be the cost for public finances?*

It is difficult to evaluate the cost of creating a special purpose vehicle (SPV), because it depends on numerous factors such as the origin of the funds and the discount for repurchases of non-performing loans.

To estimate the maximum cost for the government, we assume that the state will cover the purchase of all of the public-sector banks' non-performing loans. Using the amount of stressed debt as defined by the ministry of finances (USD 170 bn for public-sector banks), and a churn ratio of between 60% and 70%, depending on the type of scenario adopted, we estimate that repurchasing the non-performing loans of public-sector banks at a discount of between 30% and 40% would cost between USD 51 bn and USD 68 bn, the equivalent of 2.3% to 3% of GDP. Yet even if a special purpose vehicle were to be created, the finance ministry considers that additional capital would still have to be injected in the public-sector banks.

According to the Fitch rating agency, regardless of the method used, the cost should approach USD 90 bn, including USD 75 bn for public-sector banks alone (i.e. 3.4% of GDP). Creating a special purpose vehicle does not reduce the costs for the government compared to a "simple" recapitalisation, unless the ad hoc structure is financed by private capital.

Thus, even though the Indian government does not seem very inclined now to increase spending in favour of public-sector banks, it may be compelled to do so by their deteriorating situation. Even though its public finances are fragile, the country can bear the cost of cleaning up the banking sector in general, and the public-sector banks in particular. For fiscal year 2016/2017 (ended 31 March 2017), we estimate the deficit of government and all administrations at 6.5% of GDP, and public debt at nearly 69% of GDP. Nonetheless, regardless of the solution adopted by the Indian authorities, supporting the entire cost of cleaning up the public-sector banks would undermine the current fiscal consolidation movement.

## Conclusion

The big increase in corporate debt and the deterioration in the financial situation of companies sparked a very strong increase in non-performing loans, primarily among public-sector banks. To date, the sharp rise in credit risks mainly concerns the public-sector banks, which

have benefited from vast government support. Yet loan distribution has slowed sharply, and corporate investment is struggling to pick up again. Corporate loans accounted for only 34.3% of GDP at year-end 2016, a 5-point decline in less than five years. Although this decline reflects in part corporate deleveraging strategies, it can also be blamed on the growing difficulties of public-sector banks.

To stimulate bank lending and boost private investment, it is vital for the monetary authorities to successfully clean up the balance sheets of public-sector banks. So far, the measures they have taken are insufficient. There is now talk about creating a public special purpose vehicle or bad bank, but it risks disrupting the consolidation of public finances. Moreover, to be sustainable, the clean-up of bank balance sheets would require an improvement in the governance of public-sector banks.

23 March 2017

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# South Africa: what's behind the growth slowdown?

François Faure

*South Africa's short and medium-term growth prospects remain very uncertain. The external factors that contributed to the economic slowdown in recent years are expected to become more favourable, as Chinese growth stabilises and commodity prices pick up. Internal factors, in contrast, risk having a generally negative impact on total factor productivity (TFP) and on the investment capacity of companies and households.*

The South African economy is currently experiencing a period of very slow growth combined with relatively high inflation and rising public and external debt. Given the deterioration in the country's macroeconomic fundamentals, S&P's and Fitch have just downgraded the sovereign debt in foreign currency to speculative grade.

## Deteriorated macroeconomic fundamentals

Real GDP growth has slowed from a little more than 3% in 2011 to only 0.3% in 2016. Excluding consumption and investment by public administrations, growth contracted. Recent studies on South Africa's economic slowdown are unanimous: according to the South African Reserve Bank (SARB) and the IMF, the country's growth potential has eroded from more than 4% in 2007 to about 1.5% today (chart 1).

### Lower potential growth

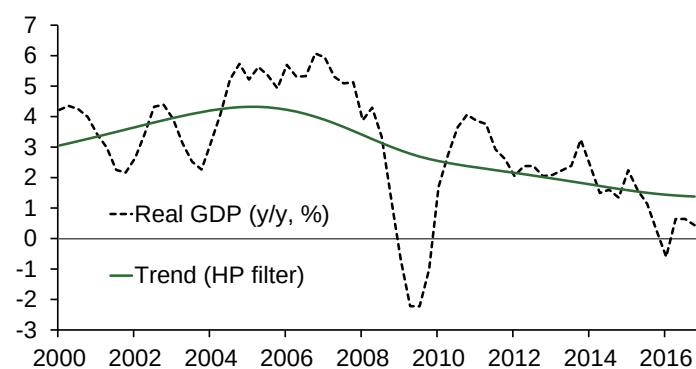


Chart 1 Sources: Stats SA, BNP Paribas

At the same time, core inflation has doubled, from 3% in early 2011 to 6% at year-end 2016 (chart 2). Non-farm payroll employment has slowed sharply, rising only 0.3% a year over the past five years, compared to 1.3% in the 2000s. This is far too low to absorb the

increase in the active population (nearly 600,000 individuals a year<sup>1</sup>) and to curb structural unemployment, which reached 27% of the active population at year-end 2016<sup>2</sup>. Moreover net job creations were concentrated primarily in public administrations and not in the private sector.

### Inflation and unemployment

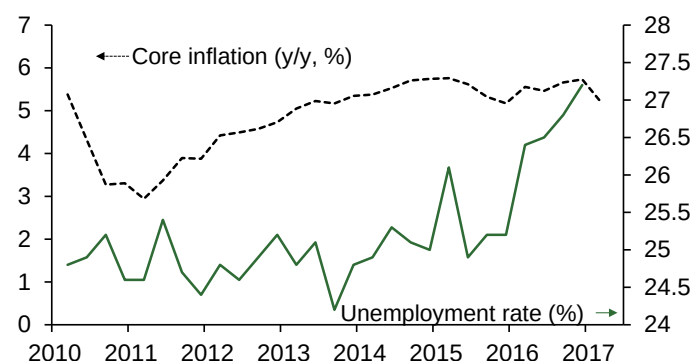


Chart 2 Sources: Stats SA, BNP Paribas

The public debt ratio rose to 51% at the end of 2016, an increase of 10 points of GDP since 2011, and a total of 25 points since the 2008-09 financial crisis. Yet the primary budget deficit (i.e. excluding interest payments on the debt) was trimmed from a little more than 3% of GDP in 2011 to an estimated 1.3% of GDP for the fiscal year ended 31 March 2017. Yet these efforts were cancelled out by higher debt servicing charges. The massive depreciation of the rand, which lost 40% against the dollar from year-end 2011 to year-end 2016, also triggered a sharp increase in foreign currency debt (as a share of GDP)<sup>3</sup>. In addition to government debt state-owned companies liabilities, rose from 6% to 18% of GDP. Thus public debt is estimated at around 70%.

<sup>1</sup> To absorb the increase in the active population, the employment in the non-agricultural private sector would have to increase by about 2.5% per year.

<sup>2</sup> According to the World Bank, the unemployment rate including discouraged individuals no longer seeking work was 33% at year-end 2015.

<sup>3</sup> The share of foreign currency debt is 10% (mostly in dollars).



Lastly, even though the terms of trade have improved since 2014 (thanks to lower oil prices in 2014-2015 and the rebound in metal prices in 2016), the current account deficit still amounted to 4% of GDP in 2016. An aggravating factor of this external imbalance is that it is a reflection of the shortage of domestic savings more than overinvestment. Given the structural deficit in the balance of direct investments, external debt has also increased sharply in recent years. It is now equivalent to 154% of export revenues, compared to only 70% before the financial crisis.

Most of the emerging countries, and the commodity producing countries in particular, have reported economic slowdowns since the global financial crisis of 2008. Can South Africa's economic slowdown be blamed solely on the downturn in the commodities super cycle? Or to the contrary, does it reflect structural weaknesses?

### Public finances

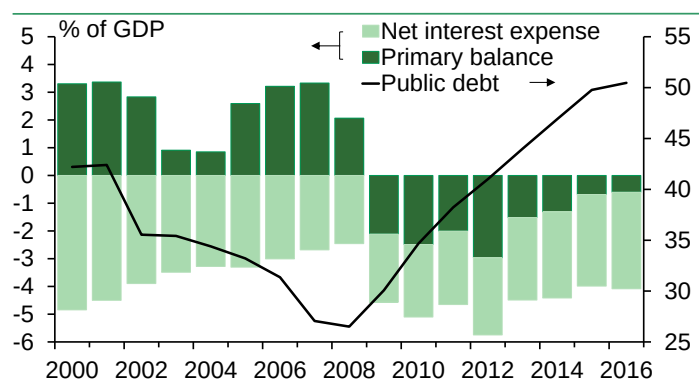


Chart 3 Sources: SA National Treasury, IMF, BNP Paribas

## External factors behind the economic slowdown

### China and the commodities cycle

Like all economies dependent on commodity prices, the South African economy has been exposed to two highly correlated external shocks since 2011: 1) the slowdown in Chinese demand for commodities, which has become the leading destination for South African exports in recent years and 2) the ensuing decline in iron ore prices (chart 4). In volume terms, however, production in the mining sector has been fairly resilient (only down 1.5% in 2016 from the 2011 level), despite

labour unrest in 2012 and 2015 and the closing of mines. Moreover, this sector accounts for only 7% of output and 3% of employment. From an accounting perspective, the sector's direct impact on GDP growth was rather small.

In contrast, the decline in commodity prices had a major indirect impact on revenues. Using a structural VAR model (explicitly integrating interdependence coefficients between the mining sector and other sectors of the economy), IMF economists calculate that a 10% decline in the export prices of South African mining products reduces growth by 0.2 points of GDP after two quarters<sup>4</sup>.

For the main mining products exported by South Africa (iron ore, copper, nickel, platinum and coal), prices declined by 60% on average between 2011 and 2016. The negative impact on GDP is estimated at a cumulative total of about 1.5 points of GDP over the period 2011-2016.

Yet the decline in commodity prices also coincided with major power shortages, which means the impact of lower commodity prices was probably overestimated. It is hard to evaluate with any precision the contribution of external factors to the slowdown in growth. Yet we can reasonably say that they accounted for less than half of the impact.

### Growth and commodity prices

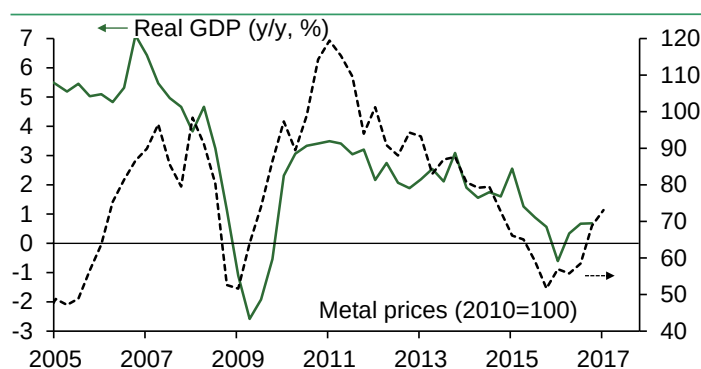


Chart 4

Sources: Stat, SA, IMF

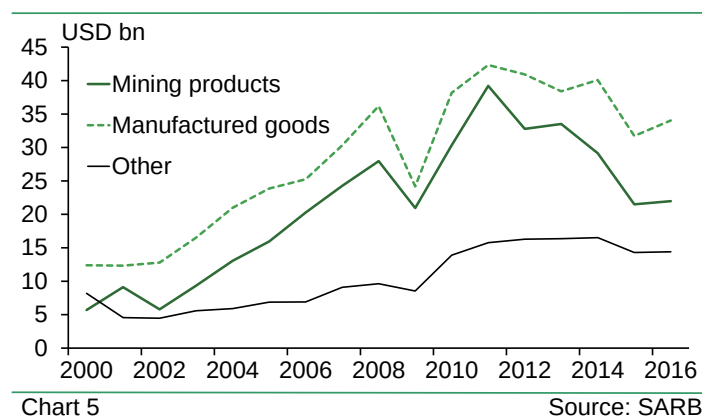
### Inelasticity of exports

Looking beyond the impact of China and the commodity price cycle, export performances have been very disappointing over the past five years.

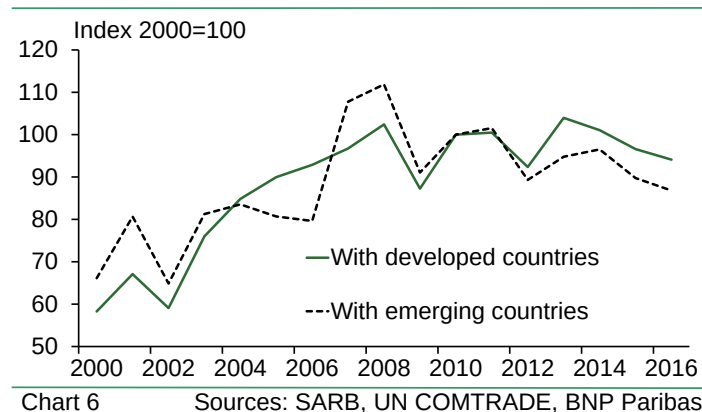
<sup>4</sup> See IMF Services Report on Article IV consultations – July 2016

Obviously, exports of mining products were largely to blame<sup>5</sup>. But the same can be said for manufactured goods, which contracted 20% over the period (chart 5), resulting in a loss of market share of nearly 15% relative to the other emerging countries (chart 6). Such a poor performance cannot be attributed solely to the slowdown in imports by South Africa's main trading partners (growth remained strong for its neighbouring countries<sup>6</sup>, which account for 13% of total exports).

## Exports by product category



## Trends in market shares for manufactured goods



Exports of manufactured goods have been hurt by the lack of non-price competitiveness. Before the financial crisis of 2008-2009, econometric studies show that the price elasticity of exports was already low. Since the crisis, price elasticity has weakened even further, since the depreciation of the real exchange rate (chart 7) did not trigger an improvement in export market share.

<sup>5</sup> They contracted 44%, and their share of total exports dropped from 41% in 2011 to 31% in 2016.

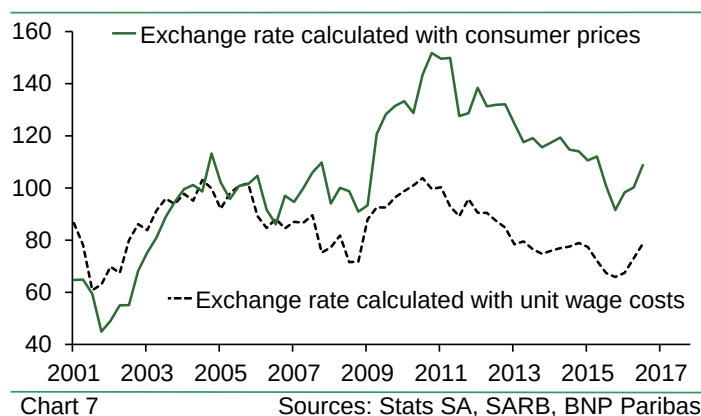
<sup>6</sup> Botswana, Lesotho, Namibia, Swaziland

According to a recent IMF study, the factors of non-price competitiveness (product diversification, material constraints such as power shortages and strike days) explain part of the inelasticity of export prices to the change in real exchange rates<sup>7</sup>.

## Internal factors behind the slowdown in growth

An analysis of the internal factors of growth sheds additional light on the previous analysis of external factors. The breakdown of growth by supply-side components<sup>8</sup> shows that capital accumulation continued to be a support factor, but that the South African economy is intrinsically less productive.

## Real effective exchange rates



## Slowdown in productivity

With the end of apartheid in 1993, economic growth accelerated rapidly in South Africa's non-farm private sector, thanks to 1) stronger capital accumulation and the positive contribution of employment in the second part of the 2000s, and 2) an upturn in total factor productivity (TFP), which had accelerated from the early 1990s to reach a strong 3% a year in the 2000s (chart 8)<sup>9</sup>.

<sup>7</sup> Rahul Anand, Roberto Perrelli and Boyang Zhang "South Africa's exports performance: any role for structural factors?" IMF Working Paper 16/24.

<sup>8</sup> This breakdown uses a production function approach.

<sup>9</sup> TFP is measured by looking at the difference between GDP growth and that of production factors (capital stock and employment), which are weighted, respectively, by the share of profits and the share of the total payroll as a % of production.



## Growth accounting

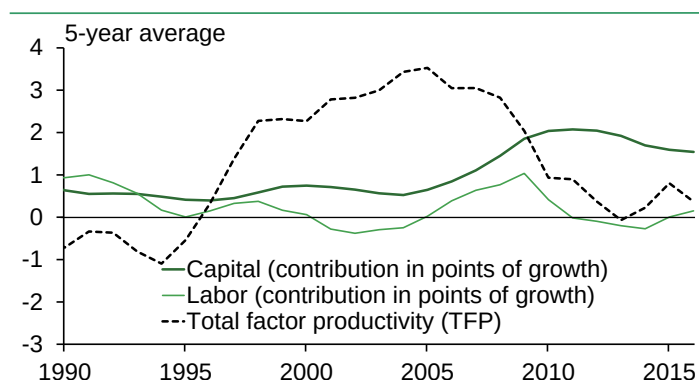


Chart 8 Sources: SARb, BNP Paribas calculations

The 2008 financial crisis cut short this positive momentum. TFP slowed sharply and employment has contracted. Although growth remained in positive territory, it was due solely to investment. As a matter of fact, the overall investment ratio held steady at about 20% of GDP.

A slowdown in TFP is often associated with stronger constraints that erode potential growth. TFP aggregates all production factors other than capital accumulation and employment, i.e. not only productivity gains (or losses) due to technical progress that are not incorporated in capital and to the streamlining of production processes, but also those due to structural effects, such as the reallocation of production factors towards other sectors in which productivity is higher than in the economy as a whole. Moreover, the calculation method for TFP also integrates ruptures in production due to exogenous factors (weather conditions, power shortages, and political and social unrest that paralyzes activity).

In the case of South Africa, there are three clearly identified explanations for the slowdown in TFP.

First, industrial output was hit by major electrical power shortages (chart 9).

Second, capital stock in capital-intensive sectors (mining, energy, and transport) has increased very rapidly in recent years<sup>10</sup>. Capital productivity in these sectors tends to be lower than in the other sectors, such as manufacturing, construction, and even agriculture.

<sup>10</sup> Between 2011 and 2016, capital stock increased 67% in energy, 22% in transport, and 20% in mining.

## Electrical power generation and industrial output

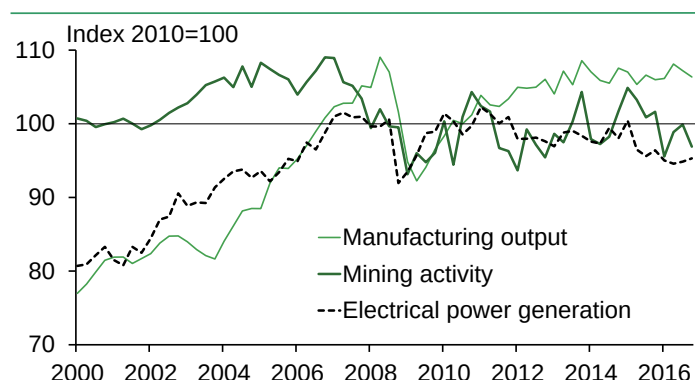


Chart 9 Sources: Stats SA, SARb, BNP Paribas

According to World Bank calculations<sup>11</sup>, this sector reallocation of capital was responsible for a shortfall in growth of about 0.3 points of GDP a year in 2012-2015 (with a peak at 0.5 points of GDP in 2015). In the 2000s, in contrast, the sector reallocation of capital had generated gains of about 0.5 points of GDP. This structural effect alone accounts for a third of the slowdown in TFP.

Third, the decline in TFP went hand in hand with the deterioration in the business climate in a broad sense (rising political and social risks, uncertainty over economic policy and the erosion of competitiveness). We can see a deterioration in the World Bank's governance indicators on political stability and regulatory quality (chart 10). Similarly, the latest IMF report warns that uncertainty over economic policy is hindering growth.

## Total factor productivity and business environment

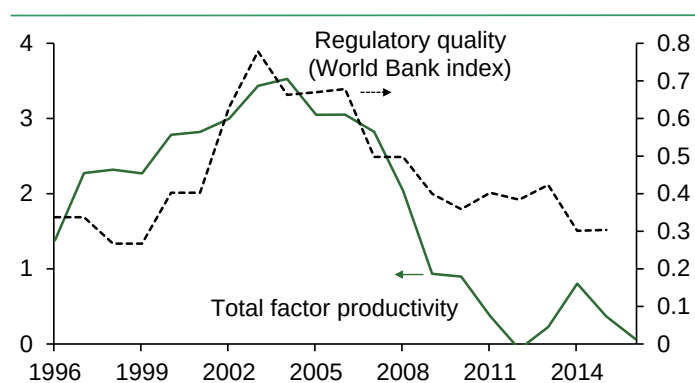


Chart 10 Sources: SARb, BNP Paribas

<sup>11</sup> "Private Investment for Jobs" South Africa Economic Update - World Bank - January 2017



## Financial constraints on corporate and household investment

Although investment has been the main support factor for growth in recent years, it is mainly due to infrastructure spending (chart 11a).

Inversely, investment by private non-financial companies has weakened (chart 11b), notably in the manufacturing sector<sup>12</sup>. Although the sluggishness of investment by private companies is probably due to the downward revision of growth forecasts, it also reflects the deterioration in their solvency.

### Investment ratio

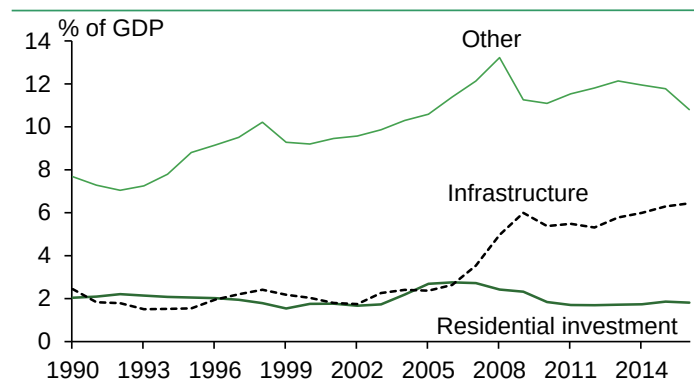


Chart 11A

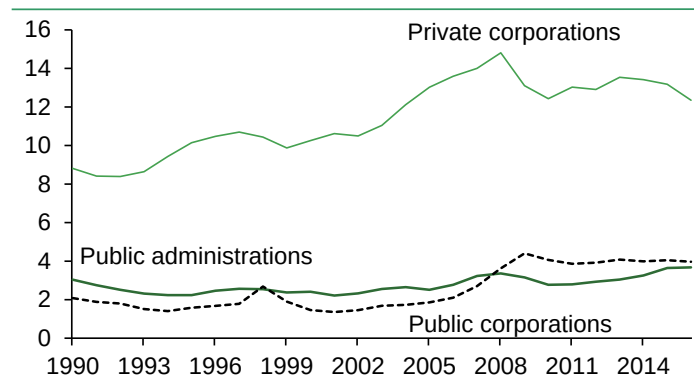


Chart 11B

Sources: SARb, BNP Paribas

The interest coverage ratio (interest expenditure/EBITDA) has narrowed to 2.5 in 2016, from close to 4 in 2011. In transport and in business services, interest coverage fell below the warning threshold of 2 in 2016.

<sup>12</sup> In this sector, the investment ratio dropped from 29% of value added in 2008 to 20% in 2016.

Despite workforce adjustments, real wages increased much faster than productivity (+50% vs. 9% in the manufacturing sector) (chart 12). As a share of value added, EBITDA of non-financial companies has eroded from 50% to 45%. At the same time, the debt ratio (the ratio of domestic loans to value added) increased sharply, from 62% to 74%. Faced with the deterioration in their solvency, it is not surprising that companies were more reticent to invest.

### Real wages vs. productivity in the manufacturing sector

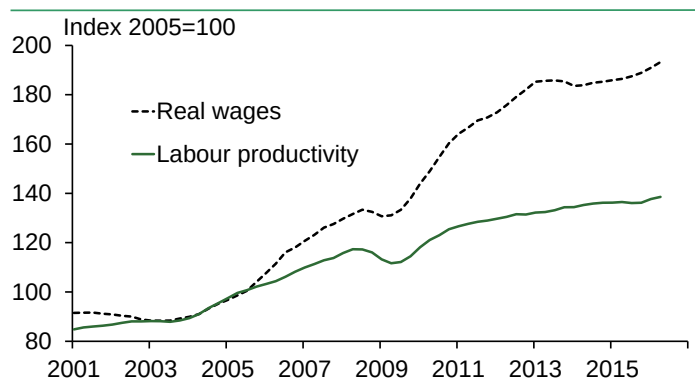


Chart 12

Sources: Stats SA, SARb, BNP Paribas

The household investment ratio has also eroded. Unlike companies, households have deleveraged, with the debt to gross disposable income ratio dropping from 85% in 2008 to 75% in 2016. Since 2013, however, debt servicing charges have increased with the upturn in interest rates (household loans are largely in variable rate instruments), and new loan production to households has levelled off.

## Weak human capital

Against a backdrop of widespread poverty, high inequality and an HIV prevalence rate are also key factors behind poor productivity trends and low participation rates in the labor market. In spite of some significant improvements since 1994, South Africa still ranks 123 out of 138 countries in the 2016-2017 Global Competitiveness report of the World Forum (worse than Bangladesh, Burundi and even Zimbabwe) for health and primary education attainments. Completion rates for secondary and tertiary education remain low, fueling skill mismatches and limiting the development of higher value-added activities.



## A rigid labor market with conflictive labor relations

Prolonged strikes directly weigh on total factor productivity, and the well above productivity wage increases negotiated by labor unions, together with high firing costs and skill mismatches, create strong insider/outsider dynamics. Therefore, high unemployment and low labor force participation rates are structural issues, as is shown by their limited responsiveness to upward shifts in growth.<sup>13</sup> Barring deep reforms in the bargaining process and labor market structure, there is even reason to suspect that the labor force's contribution to potential growth will continue to weaken. The employment tends to adjust more during the downward phases of the business cycle than during the upward phases<sup>14</sup>, meaning that each cyclical downturn increases the – already very high – structural unemployment rate.

## Conclusion

South Africa's short and medium-term growth prospects remain very uncertain. External factors that contributed to the economic slowdown in recent years are expected to be more favourable, as Chinese growth stabilises and commodity prices pick up. Internal factors, in contrast, will generally have a negative impact on total factor productivity and the investment capacity of companies and households. Investment in infrastructure in recent years should normally help boost potential growth. But despite currency depreciation, the competitiveness of exports has deteriorated, and higher interest rates are undermining corporate and household's balance sheets. Lastly, the lack of human capital, job market rigidities, a deteriorating business climate and political tensions have altered the country's image in the eyes of non-resident investors.

21 April 2017

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<sup>13</sup> see IMF article IV staff report July 2016

<sup>14</sup> Ibidem



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