

# Fiscal policy, public debt management and government bond markets: issues for central banks

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## Abstract

To reinforce the long-term sustainability of public finances, the South African National Treasury has proposed a set of fiscal guidelines informed by three principles, namely: a counter-cyclical fiscal stance, long-term debt sustainability and inter-generational equity. Owing to the sound management of the fiscus during the six years of strong economic growth (2002–2007), budget surpluses and fiscal space were created.

The South African economy entered the 2008–2009 recession with healthy public finances and comparatively low levels of debt. The issuance of domestic government bonds and Treasury bills alongside government cash balances remains the government's primary source of financing. This reflects the healthy, liquid and deep domestic bond market in South Africa. Domestic government debt accounted for 90.1 per cent of total gross debt of the national government in 2010/11. The government's total gross loan debt (comprising domestic and foreign debt) increased from R990.6 billion in the 2010/11 fiscal year to an estimated R1.2 trillion in 2011/12. As a ratio of gross domestic product, the national government's total gross loan debt increased from 36.0 per cent to an estimated 40.1 per cent during this period and is expected to plateau at just over 42 per cent in 2014/15, which should allay concerns over debt sustainability.

The financing of fiscal deficits recently had no adverse impact on monetary policy, despite the shift from international to domestic markets for public debt. The build-up of government deposits with the central bank reflects the government's funding of foreign exchange purchases for purposes of foreign reserve accumulation. The growth in the central bank's balance sheet over the past six years reflects the accumulation of foreign reserves and was not due to any sort of quantitative easing policies pursued by the central bank. The central bank issues its own debt paper. The central bank is a full participant on the National Treasury's debt management committee.

Keywords: Sustainability of public finances, government debt-to-GDP ratio, government debt maturity profile, liquid, deep and transparent government debt markets, debt management coordination, yield curve for government debt, capital flows into domestic debt markets, public debt and monetary policy

JEL classification: E52, E62, H63

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## A. Is monetary policy constrained by unsustainable paths of public debt?

To reinforce the long-term sustainability of public finances, the South African Minister of Finance has proposed a set of fiscal guidelines informed by three principles, namely, a counter-cyclical fiscal stance, long-term debt sustainability and inter-generational equity

### i. The fiscal stance

***The National Treasury (NT) considers a host of measures when determining the fiscal stance.*** These include the budget balance, the primary balance (which is a key driver of fiscal sustainability), the current balance (to determine how much borrowing is being undertaken for consumption expenditure), and the cyclically adjusted budget balance (to account for the effects of the business cycle on revenue). All of these measures are at the consolidated level, which covers the national and provincial governments, social security funds, and selected entities, and are projected over a 3-year rolling time frame and updated bi-annually.

South Africa publishes information on its stock of debt on both a gross and net basis. Net loan debt consists of total domestic and foreign debt, less the cash balances of the National Revenue Fund. These cash balances consist of deposits in rand and foreign currency.

Owing to sound management of the fiscus during the preceding six years of strong economic growth (2002–2007), the economy was doing well, with budget surpluses recorded in the 2006/07 and 2007/08 fiscal years, which helped to create fiscal space. The South African economy entered the 2008–2009 recession with healthy public finances and comparatively low levels of debt.

The issuance of domestic government bonds and Treasury bills (TBs) alongside government cash balances remained the government's primary source of financing. This reflects the healthy, liquid and deep domestic bond market of South Africa. Domestic government debt accounted for 90.1 per cent of total gross loan debt of the national government in 2010/11, with foreign debt accounting for the balance.

The national government's total gross loan debt, which comprises domestic and foreign government debt, increased from R990.6 billion in the 2010/11 fiscal year to an estimated R1.2 trillion in 2011/12. As a ratio of gross domestic product, the national government's total gross loan debt increased from 36.0 per cent to an estimated 40.1 per cent during this period. The government debt-to-GDP ratio is projected to plateau at just over 42 per cent in 2014/15, which should allay concerns over debt sustainability.

Retirees in South Africa have two main sources of income: the means-tested state old age pension and private pensions. There is no statutory obligation to contribute to either. In some firms, participation in a pension fund is a condition of employment, but there is no obligation for workers to preserve these savings if they lose or change jobs. Millions of South Africans are unable to save adequately for retirement and rely on the old age pension, even though it might provide an income well below average career earnings.

South Africans obtain medical care either through the public health system or through contributory medical schemes. In pursuing a more equitable and effective health system, the government recognises the complementary role of public and private health services. Proposals for a national health insurance (NHI) system are currently under review, along with other elements of a 10-point strategy for revitalisation of health services. Health insurance is a way of paying in advance for some or all of the costs of health care.

Local government finances are monitored by the Intergovernmental Relations Division of the NT, and published in the annual Local Government Budgets and Expenditure Review. Monthly finance reports are published on the NT website.

The NT also projects national gross loan debt and net loan debt (ie gross debt less cash balances) using a variety of methods, in order to determine whether debt is rising indefinitely over time. More recently, the NT has begun publishing estimates of provisions, contingent liabilities, and the overall public sector borrowing requirement. Three-year national debt projections are published bi-annually, but the NT also considers longer-term projections when setting the budget.

The NT publishes medium-term estimates of the costs of the health system, the social grants system and the balances of social security funds. The NT is preparing a long-term fiscal report, to be released in 2012, which will discuss the long-term pressures on the fiscus of population changes.

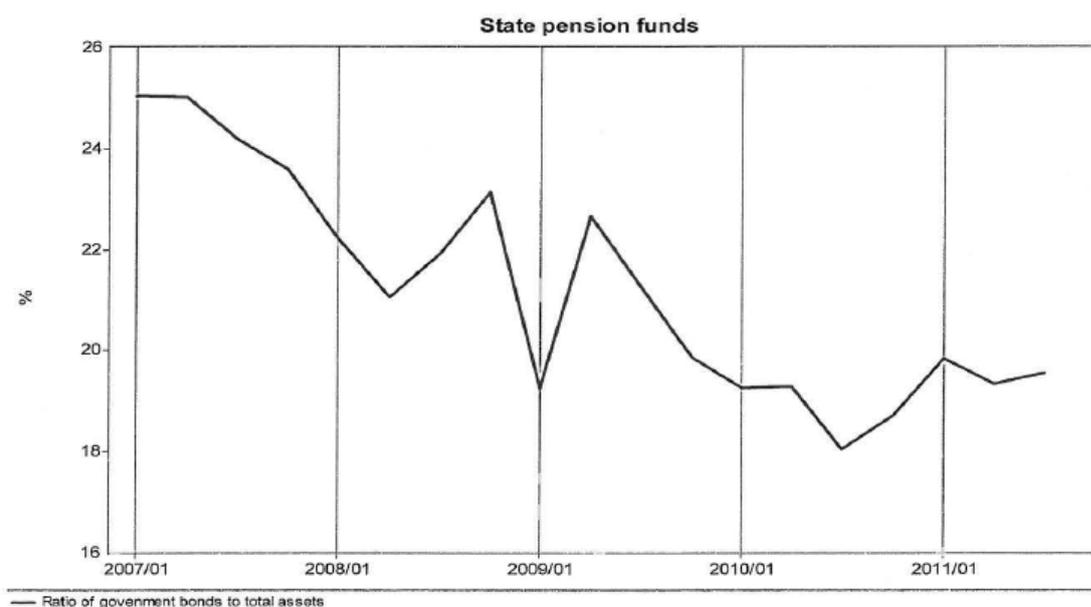
## **ii. Stock of public sector assets**

### ***Central bank assets***

At the end of March 2012, foreign assets amounted to approximately 90 per cent of the South African Reserve Bank's (Bank) total assets of R457 billion. The NT has funded approximately 31 per cent of the official gross gold and foreign exchange reserve accumulation. These purchases were funded out of excess income of the NT and therefore do not reflect additional government debt. The official foreign reserves are owned by the Bank, and cannot be seen as off-setting government debt. The Bank has a portfolio of rand-denominated government bonds amounting to R8.6 billion at the end of March 2012, or 1.9 per cent of total assets. These bonds were not acquired in the primary market, but were obtained from the NT as settlement of realised currency valuation losses on foreign exchange holdings and forward contracts. In terms of the Reserve Bank Act, local currency valuation profits/losses of the official gold and foreign exchange reserves are for the account of the NT.

### ***State pension funds***

State pension funds are funds administered by the NT, Transnet, Telkom and the Post Office. The value of government bonds held by these funds increased from R191 billion in the first quarter of 2007 to R221 billion in the fourth quarter of 2011. As a percentage of total assets, holdings of government bonds declined from 25 per cent to 20 per cent over the same period. This indicates that the financing of government debt by state pension funds has declined somewhat since 2007. These funds seemed to have switched from government to public corporation bonds, as the ratio of the latter to total assets increased by 5 percentage points. The government has recently provided guarantees on some bonds issued by public corporations such as Eskom and Sanral. State pension funds have also increased investment in bonds issued by the private sector.



### iii. Financing of fiscal deficits and monetary policy

Normally, the financing of fiscal deficits would not affect monetary policy. However, financing pressures increased due to higher deficits, and this could have a monetary impact, especially if the Bank has to issue securities to manage money market liquidity. Government assistance to the central bank to accumulate foreign reserves would be curtailed as funds would be applied to more pressing priorities. Deficit financing pressures could compel the government to broaden funding sources and borrow offshore for use in the domestic market. The government would be faced with selling such funds to the central bank, but this would have unintended consequences in that liquidity would be injected into the domestic money market which would need to be sterilised. In order to overcome this problem, the government could opt to sell foreign currency in the domestic market, but this would result in the appreciation of the local currency.

Recently, the government has opted to place foreign exchange deposits with the Bank to avoid the money market liquidity impact of foreign exchange accumulation.

## B. Domestic currency public debt issued in local markets

### iv. Shift from international to domestic markets for public debt

The domestic capital markets remain the primary source of funding for the government's gross borrowing requirements. The purpose of borrowing in the international capital markets is to finance the government foreign currency commitments and to establish benchmarks for local public entities to borrow in the international market. The country's foreign debt as a percentage of gross loan debt is estimated to decrease from 9.9 per cent in 2010/11 to 5.9 per cent in 2014/15.

### v. Money market development

Short-term borrowing consists of TB issuance. Provinces and some public entities are required to invest their surplus cash with the Corporation for Public Deposits (CPD), and the government borrows from the Corporation for its financing activities. The government TB portfolio has been diversified from 91-day and 182-day bills to also include 273-day and 364-day maturities. The short-term debt portion of the government's total gross loan debt,

mainly TBs, increased from 6.4 per cent in 2000/2001 to 13.7 per cent in 2010/11. It is expected to decrease to 13.0 per cent in 2014/15.

In 2010, the money market migrated to the dematerialised Money Market Settlement System (MMSS) of Strate. Initially only new TB issuances since 26 February 2010 were issued, cleared and settled electronically. By February 2011, all TBs were dematerialised. Beneficial ownership is recorded and updated in Strate's Securities Ownership Register (SOR) and ownership information is provided to all the issuers.

Government deposits with the Bank increased considerably from levels of around R70 billion at the end of 2009 to approximately R132 billion at the end of March 2012. These deposits largely sterilised liquidity injected into the money market, emanating from foreign exchange transactions by the Bank.

The increase in government deposits with the Bank since 2009 was mainly the result of a sharp rise in foreign currency-denominated deposits, which increased from R2.9 billion in December 2009 to R30.9 billion in December 2010 and R67.6 billion in March 2012.

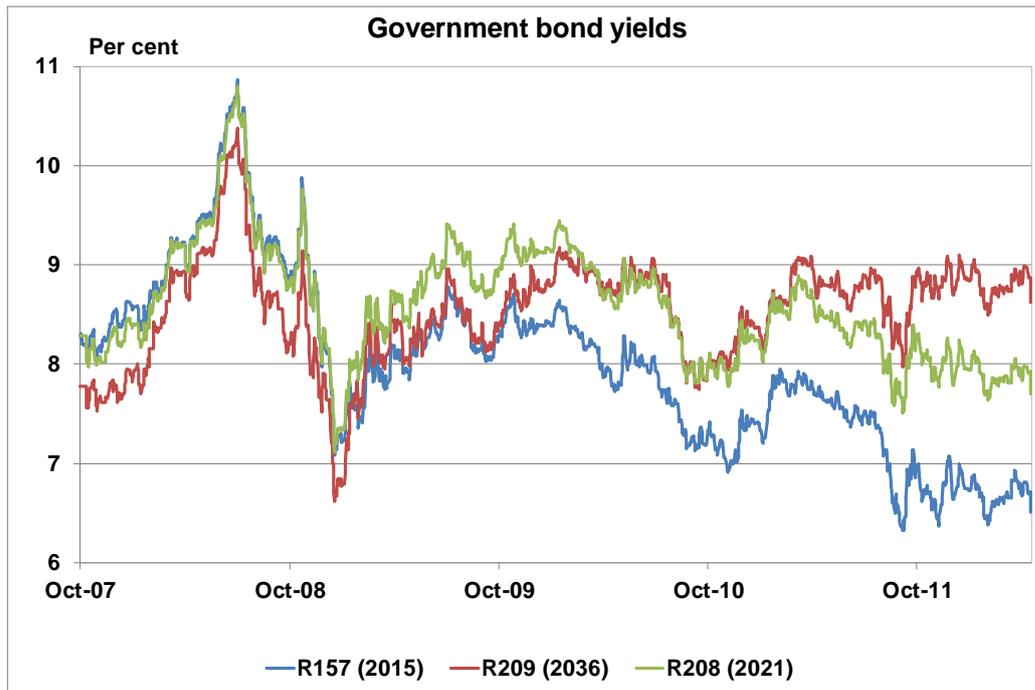
#### vi. Lengthening maturity of domestic government bonds and developing yield curves

Holdings of government bonds by the Bank remained broadly on the same level for the past six years, with generally the same bonds being held in its portfolio.

The NT switched approximately R15 billion of short-term government bonds maturing between one and two years into longer-term bonds during 2011/12 to manage the refinancing risk of the government debt portfolio. The accompanying table indicates the average, original and remaining maturity in years of all national government bonds, weighted by the outstanding amounts in issue. Further switch auctions are planned for 2012/13.

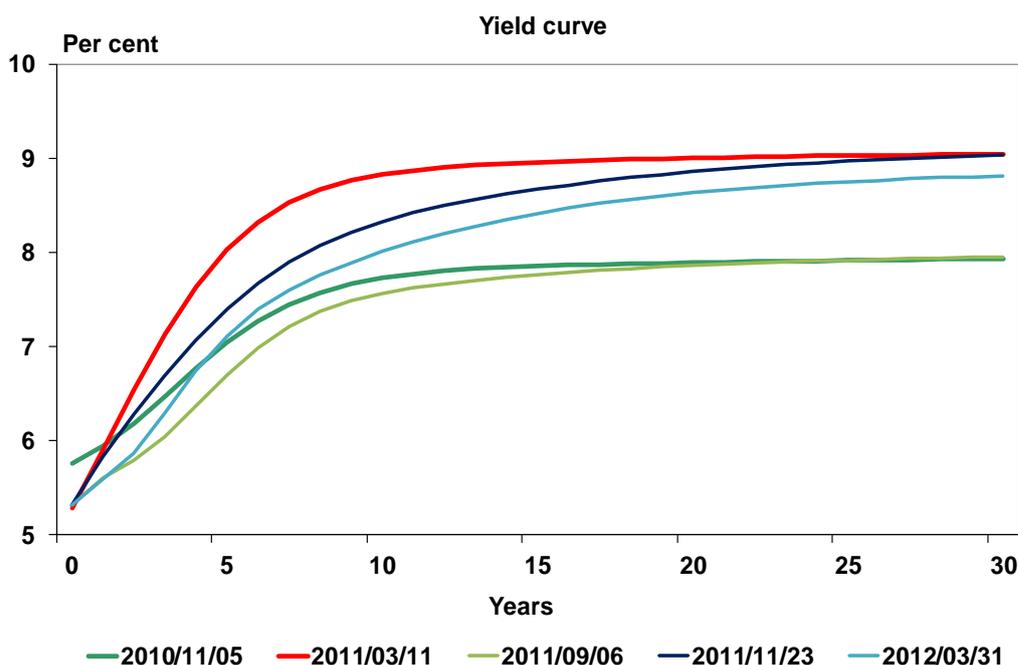
National government total amounts outstanding	2002	2003	2004	2005	2006	2007	2008	2009	2010	Sep 2011
Weighted average original maturity in years	17.3	16.6	15.4	16.0	16.8	17.4	18.4	18.1	18.3	19.4
Weighted average remaining maturity in years	9.0	8.3	8.3	8.2	8.4	8.5	10.0	10.6	10.8	11.3

From the beginning of 2007 to July 2008, bond yields increased in response to inflationary concerns arising from record-high prices of oil and food. Bond yields then declined sharply until December 2008, before increasing again up to July 2009 in reaction to, among other things, the notable increase in the supply of government bonds. From July 2009 to November 2010, bond yields decreased as a result of the appreciation in the exchange value of the rand, the reductions in the repurchase rate, the release of better-than-expected consumer inflation data and strong non-resident demand for domestic bonds, before fluctuating higher up to the beginning of 2011. After experiencing an inverted yield curve from the end of 2006, the yield curve normalised in mid-2009 and has since remained positive sloping.



Except for the short end, which remained anchored to the unchanged repurchase rate, the level of the yield curve across the rest of the maturity spectrum declined from March 2011 to September 2011, before increasing up to November 2011 following the depreciation in the exchange value of the rand. The unusually flat yield curve from the middle area of the curve to the long end steepened from September 2011 to November, as the issuances of longer-term bonds were more significant and as a result of the switches. Since September 2011, the yield curve has moved marginally downwards.

As yields of longer-term bonds increased more pronouncedly than the shorter-term bonds from September to November 2011, the yield gap, measured as the difference between the yields at the extreme long and short ends of the curve, widened from 264 basis points on 6 September 2011 to 372 basis points on 23 November, but has narrowed to 334 basis points on 18 April 2012.



## vii. Financial stability risks related to deeper domestic financial markets

### ***Larger capital inflows, more assets and liquidity to support speculative activity***

In the aftermath of the global financial and economic crisis, interventions by authorities to stabilise financial systems introduced cyclical imbalances that run the risk of becoming structural in nature. In this way, historically low interest rates and high levels of liquidity in advanced economies caused investors to borrow in these countries and invest in high-yielding assets in EMEs (carry trade). Furthermore, EMEs recovered much quicker from the effects of the global financial and economic crisis, making them attractive destinations for international investment flows. These imbalances created the risk of excessive capital flows to emerging markets, increasing the risk of asset-price bubbles followed by collapses in prices. These risks arise when capital flows are not matched by economies' ability to absorb the flows productively.

Despite the relatively lower economic growth rate in the latter part of 2010 compared to the first half, EMEs remained an important driver of global economic growth and recorded a 7.5 per cent economic growth rate for 2010 as a whole. Countries in developing Asia grew the most rapidly of all EMEs, reaching an average economic growth rate of 9.7 per cent during 2010. Economic growth in EMEs is estimated to have slowed to 6.2 per cent in 2011, as their developed trading partners experienced a significant loss of momentum. In its latest edition of the World Economic Outlook (WEO),<sup>2</sup> the IMF forecasts that EME economic growth will moderate somewhat further in 2012, before reaccelerating mildly in 2013, to 6.0 per cent. The IMF, however, still points to lingering downside risks. Key risks for EMEs include a rapid rise of inflation pressures and overheating pressures, partly driven by capital inflows.

### ***Faster transmission of external shocks***

The South African bond and foreign exchange markets are extremely liquid. With no exchange controls applicable to non-residents, the domestic markets are popular for the hedging of exposures in other markets. Moreover, these deep and liquid domestic markets are convenient for the outright selling/buying of foreign exchange and other securities. The domestic bond market is also a favourable destination for carry trades out of the US, the UK and Japan. The experiences of 2010 and 2011 (year-to-date), however, demonstrated that due to the high level of liquidity, the domestic markets, especially the foreign exchange market, can be extremely volatile, with the exchange rate serving as a key transition channel of global instability into our market. Recent volatility in the rand was therefore the result of global instability and negative sentiment which triggered risk on/risk off trading scenarios, and not really due to domestic circumstances.

The monetary policy transmission mechanism in the domestic market is still seen as being predominantly via the credit channel, with credit priced *off* the prime lending rate. The pricing of credit from both the money and bond market yield curves has grown significantly. The short end of the bond yield curve is mainly affected by expectations regarding the central bank's monetary policy stance, while the longer end is driven mainly by inflation expectations, explaining the relatively long transmission period between short- and long-term interest rates.

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<sup>2</sup> April 2012.

## **C. Central banks and public debt management**

### **viii. Central bank debt paper**

The Bank issues SARB debentures in terms of section 10(1)(i) of the South African Reserve Bank Act, 1989 (Act No. 90 of 1989). The SARB debentures are issued solely for liquidity management purposes in the domestic money market, that is, to drain excess liquidity from the market. They are issued with maturities of 7, 14, 28 and 56 days. The outstanding amount of SARB debentures in the market was R31.2 billion at the end of November 2011, and R21.0 billion at the end of March 2012.

The Bank issues SARB debentures in the shorter end of the money market curve while the government issues in the longer end. Furthermore, TBs are at times issued at interest rates above the repurchase (repo) rate, whereas debentures are issued at rates at or below the repo rate. The Bank occasionally encounters difficulties in issuing its own securities.

The NT issues TBs for cash management purposes. These are money market instruments with maturities of 91, 182, 273 and 364 days. The outstanding amounts were R54.8 billion, R35.8 billion, R38.0 billion and R31.4 billion, respectively, at the end of November 2011, and R46.5 billion, R36.3 billion, R38.7 billion and R34.8 billion, respectively, on 13 April 2012. NT auctions are on different days to those of the SARB debentures. Furthermore, the NT coordinates the issuance programme of the broader public sector.

### **ix. Short-term vs long-term public debt**

The central bank's involvement in government debt management is on an agency basis to conduct auctions for primary issuance of bonds and TBs.

Historically, the government has co-operated with the central bank when raising currency debt. Initially, proceeds from foreign currency loans were applied against the Bank's oversold net open position. Since then, the government has continued to support the Bank's efforts in foreign exchange reserve accumulation.

### **x. Domestic vs foreign currency debt**

The current arrangement between the Bank and the NT is that the proceeds of the government's offshore borrowing are deposited with the Bank. Furthermore, the NT has funded a substantial portion of the accumulation of foreign reserves in recent years. The purchases are funded out of revenue overruns. However, foreign exchange swaps are also extensively utilised to fund foreign exchange purchases. Outstanding foreign exchange swaps conducted for this purpose amounted to USD6.6 billion at the end of November 2011 and USD7.0 billion at the end of March 2012. These swaps will also eventually be funded by the NT.

### **xi. Central bank balance sheets and by quasi-fiscal operations**

The Bank is not involved in quasi-fiscal operations or unconventional monetary policies. The growth in the size of the Bank's balance sheet over the past five years was therefore due to the policy of the monetary authorities to accumulate foreign reserves in order to reduce the country's external vulnerabilities, and not to unconventional monetary policies (or quantitative easing).

### **xii. Governance arrangement for the coordination of monetary policy and public debt management**

A Memorandum of Understanding (MOU) between the Bank and the government sets out a framework for a consultative process. This MOU also sets out a framework for the formation

of Standing Committees to oversee macro-economic, banking and financial market, financial and regulatory, and international relation issues. The Standing Committee on Banking and Financial Markets contributes, among other things, to the primary objective of debt management policy of minimising debt costs within acceptable risk levels. The Bank also sits as a full participant on the Debt Management Committee chaired by the NT.