The use of analytical tools to determine debt management strategies

National Treasury

Asset and Liability Management Division | 27 June 2013

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Outline

- Core elements in designing debt management strategies
- South Africa’s analytical tools
- Public debt analytical tools

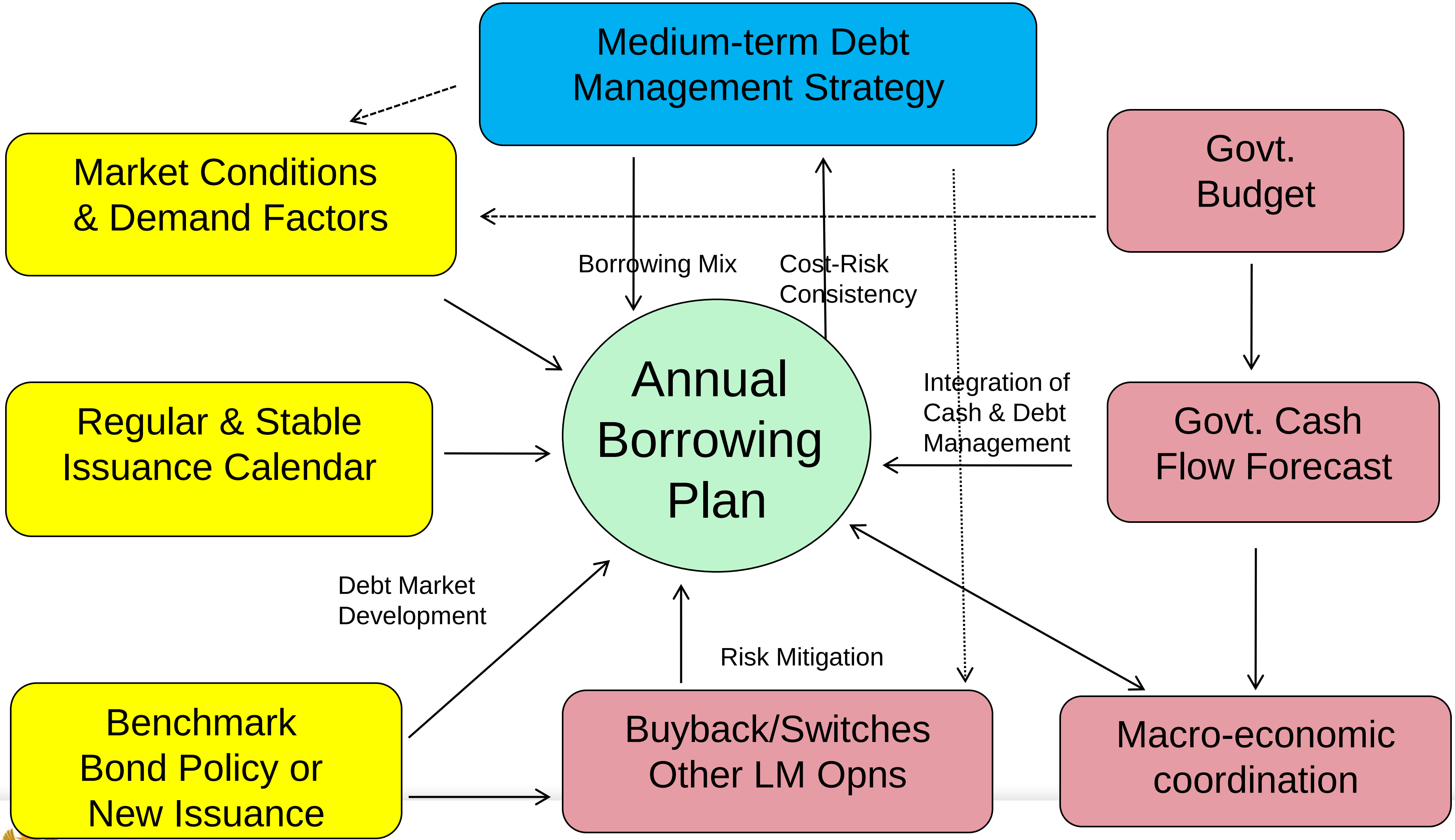
Core elements in designing debt management strategies

Key steps in formulating a debt management strategy

- Identify objectives for debt management and scope of the MTDS
- Identify cost and risk of the existing debt
- Identify potential funding sources
- Identify baseline projections and risks for key policy areas – fiscal, monetary and market
- Review key longer-term structural factors and determine implications for MTDS
- Identify the cost-risk trade-offs for alternative strategies, and rank their performance
- Review implications of preferred strategy with fiscal and monetary policy authorities, and for market conditions
- Submit recommendation and secure agreement on MTDS from decision makers

Source: Developing a MTDS – Guidance Note for Country Authorities (World Bank, IMF, 2009)

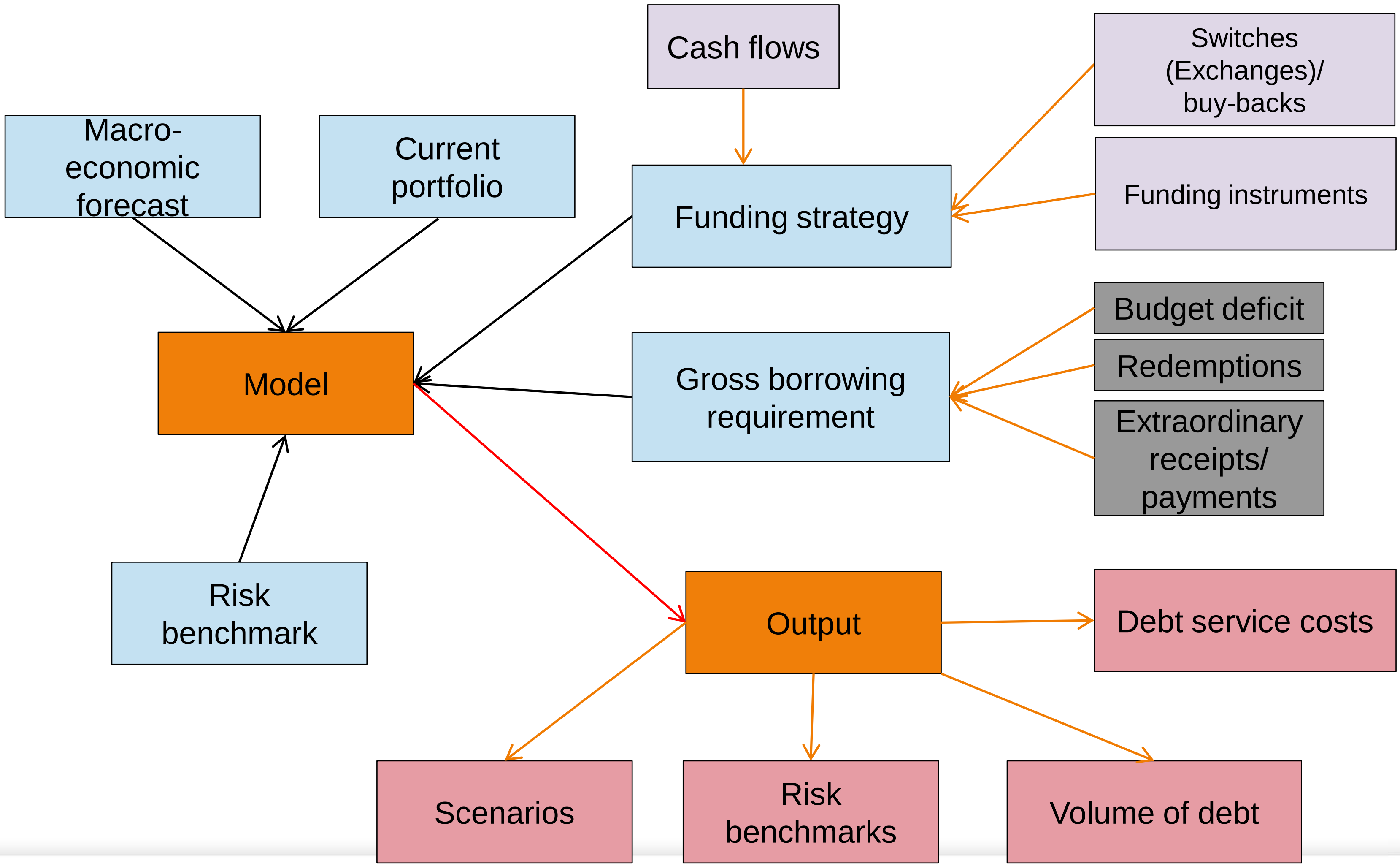
Debt strategy and annual borrowing plan



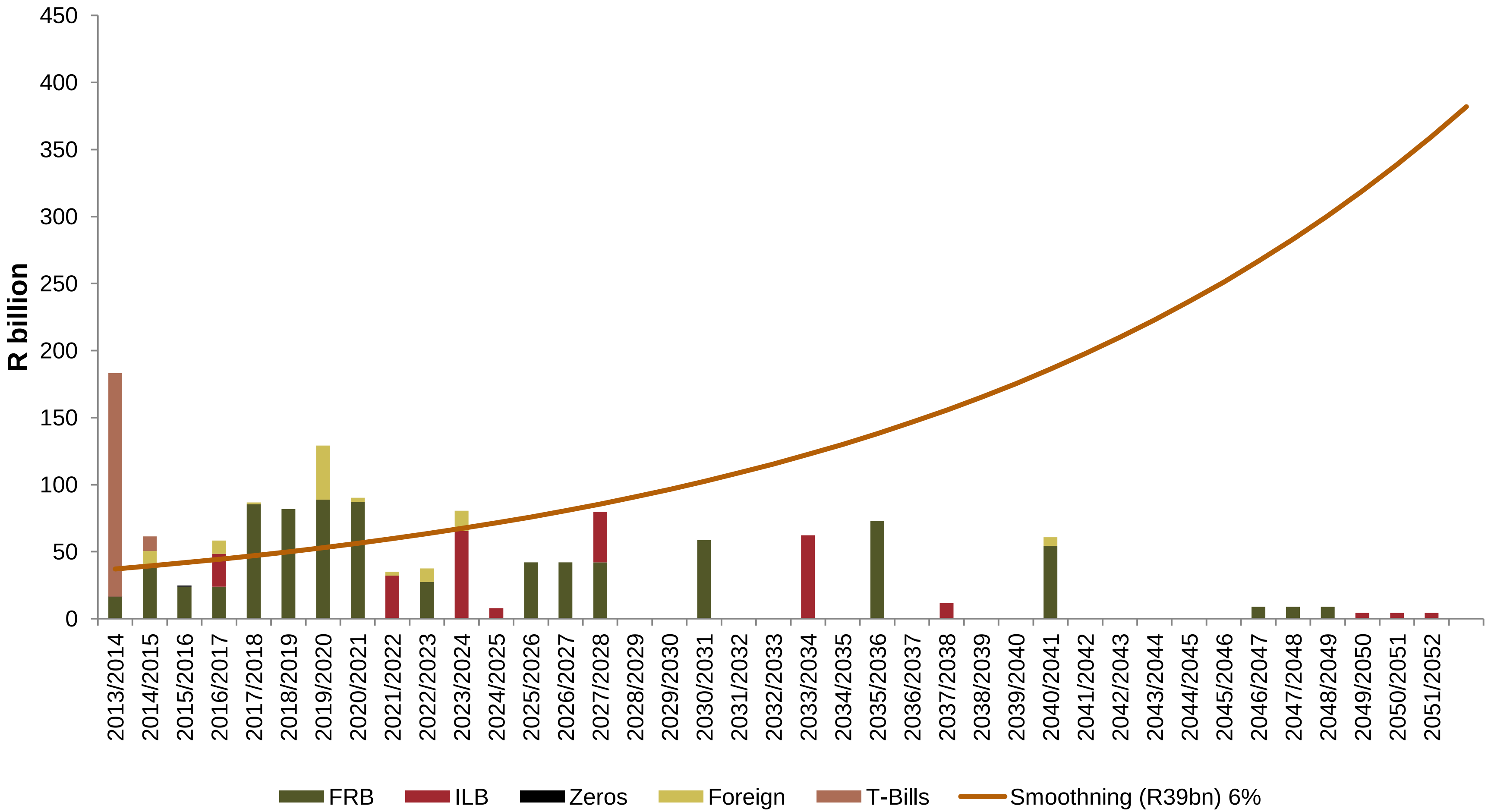
national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

South Africa’s analytical tools

Debt and debt-service cost forecasting model



Management of refinancing risk



national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Quality of cash management and forecasting is important

Long-term

3-year annual forecast

3-year monthly forecast

Year 1	Year 2	Year 3
Months	*Months*	*Months*
1 2 3 4 5 6 7 8 9 11 12	1 2 3 4 5 6 7 8 9 11 12	1 2 3 4 5 6 7 8 9 11 12

Current year rolling monthly forecast

Year 1	
Months	••••• Rolling into year two
1 2 3 4 5 6 7 8 9 11 12	

Short-term

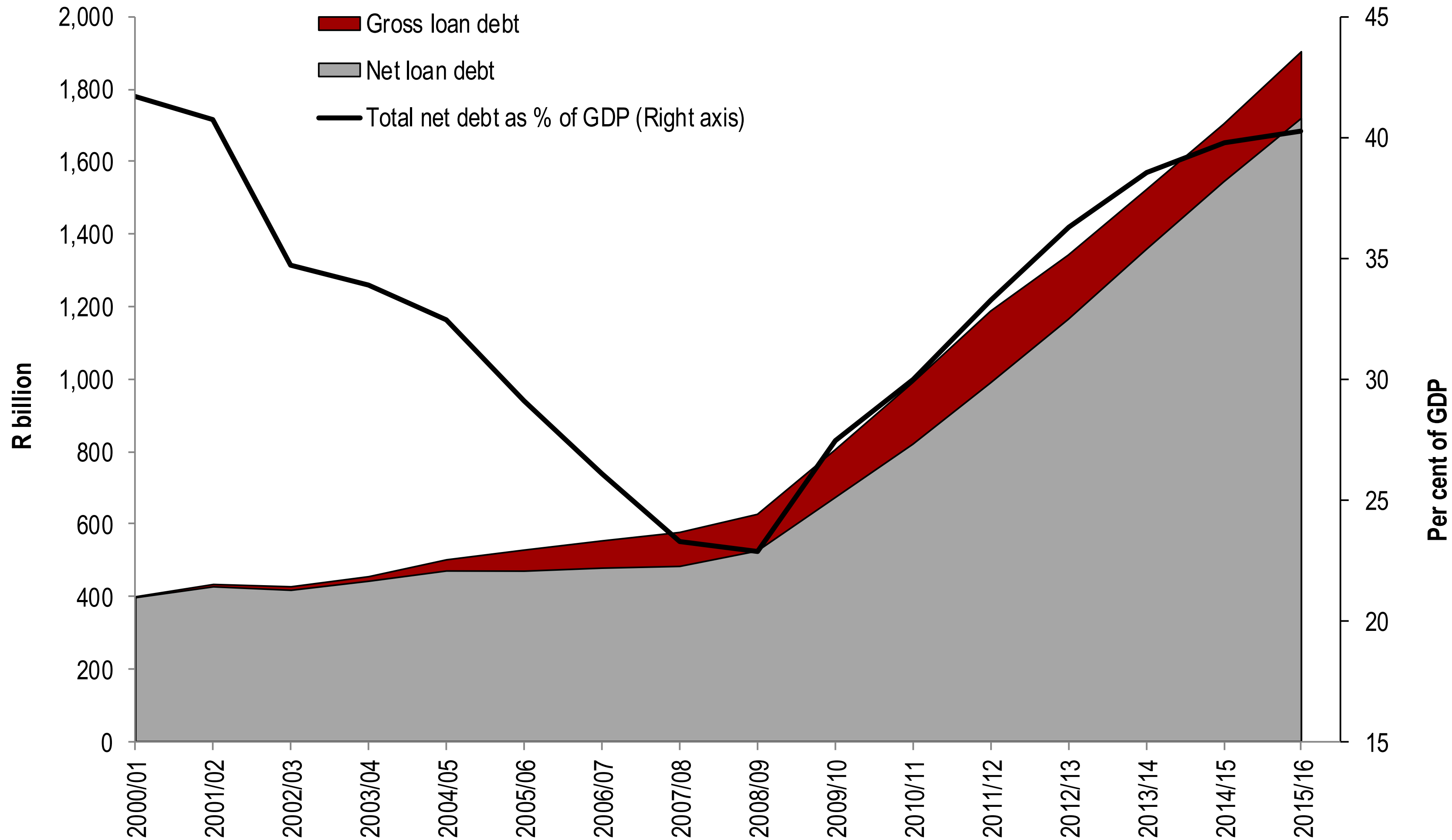
90-day daily forecasts (or longer if needed)

Days

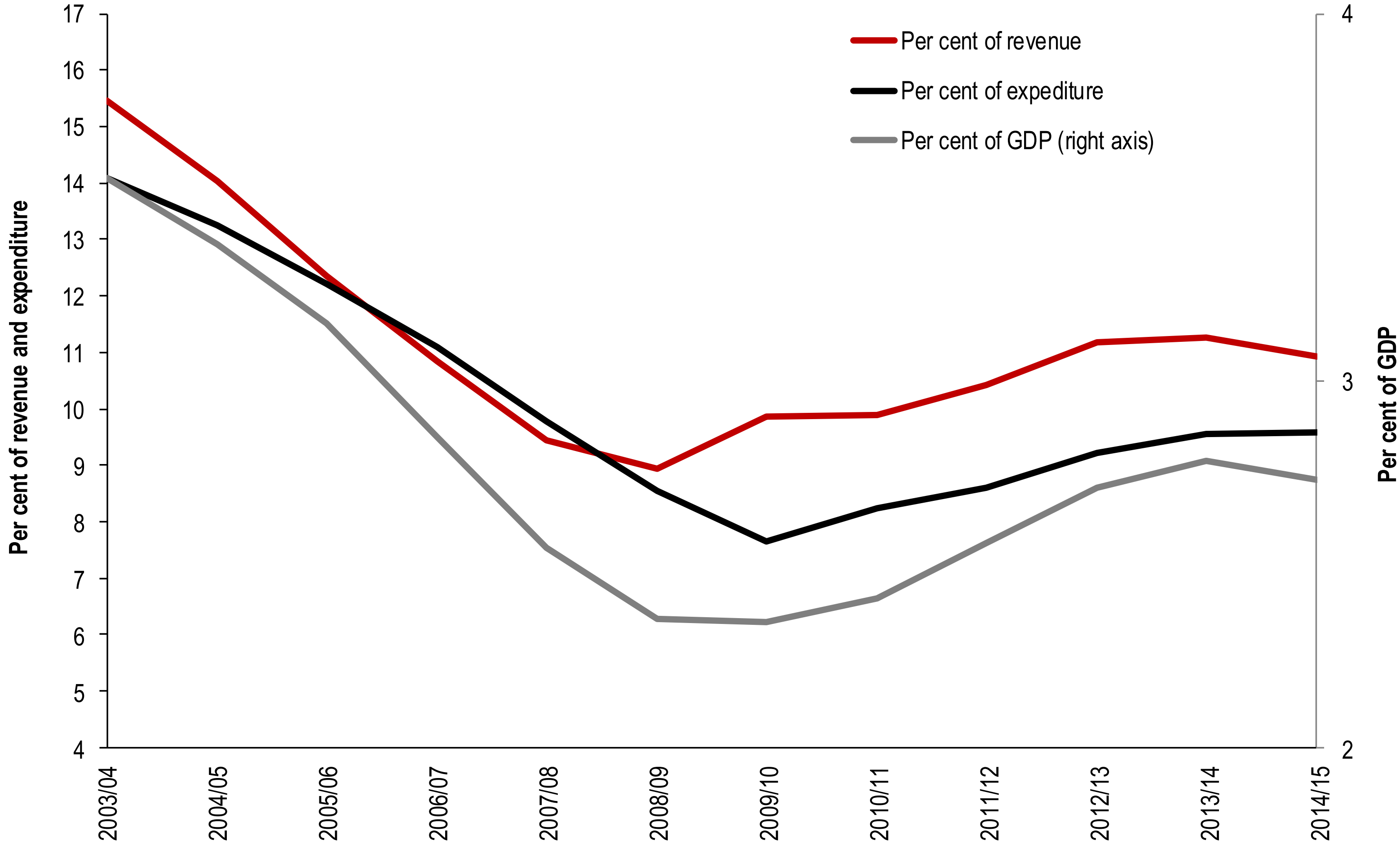
1 - 90

Current day firm forecasts (11:00 and 15:00)

Total net government debt

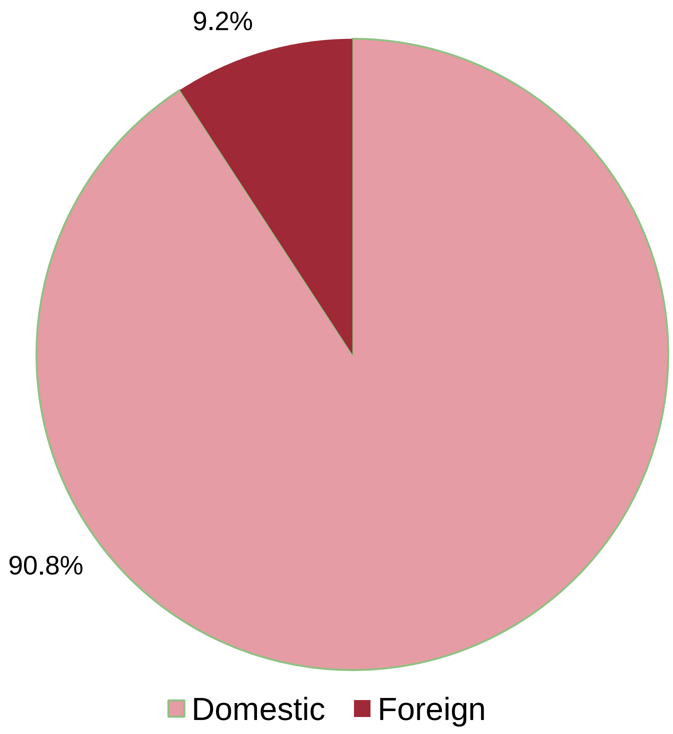


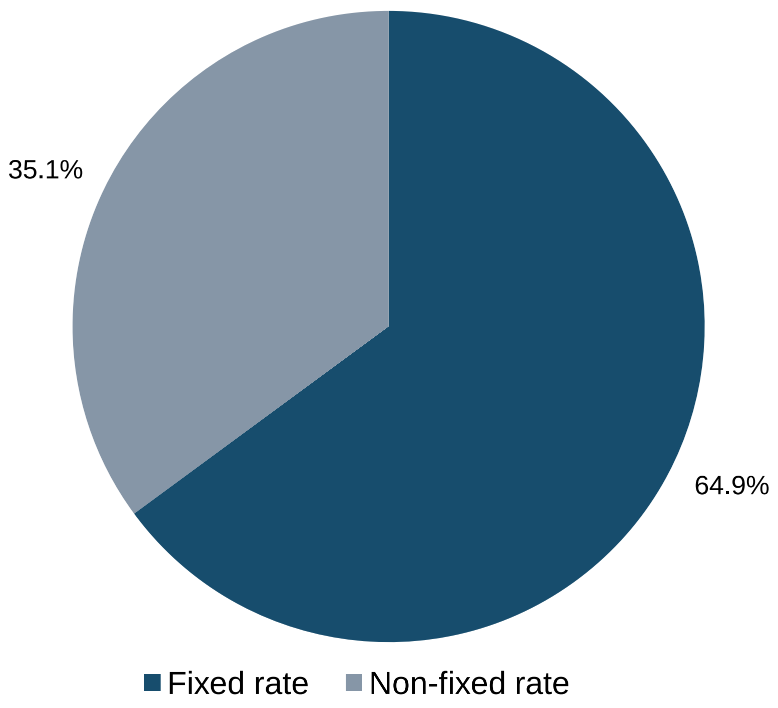
Government debt-service costs to peak in 2013/14



national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Composition of the debt portfolio – 31 March 2013





Managing contingency liabilities

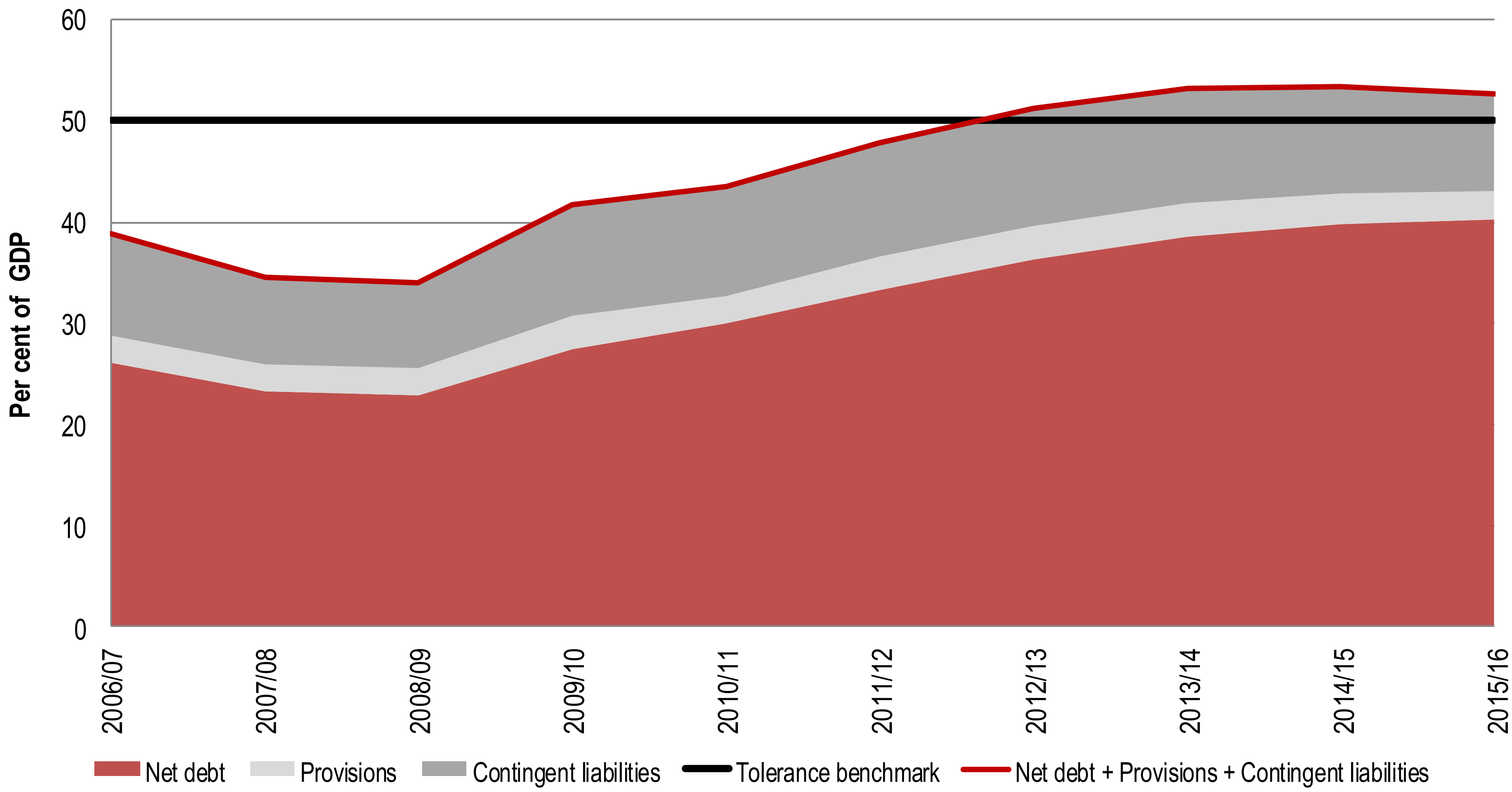
RiskCalc

- Moody's KMV analytical tool is used to determine the probability of default by state-owned companies
- Models used indicators such as: profitability, leverage, debt coverage, liquidity
- The model is used to managed the national government's guarantee exposure

CreditEdge

- The model is used to determine the National Treasury's credit risk exposure for investing surplus cash
- Model includes business and financial risk indicators

Net debt, provision and contingent liabilities



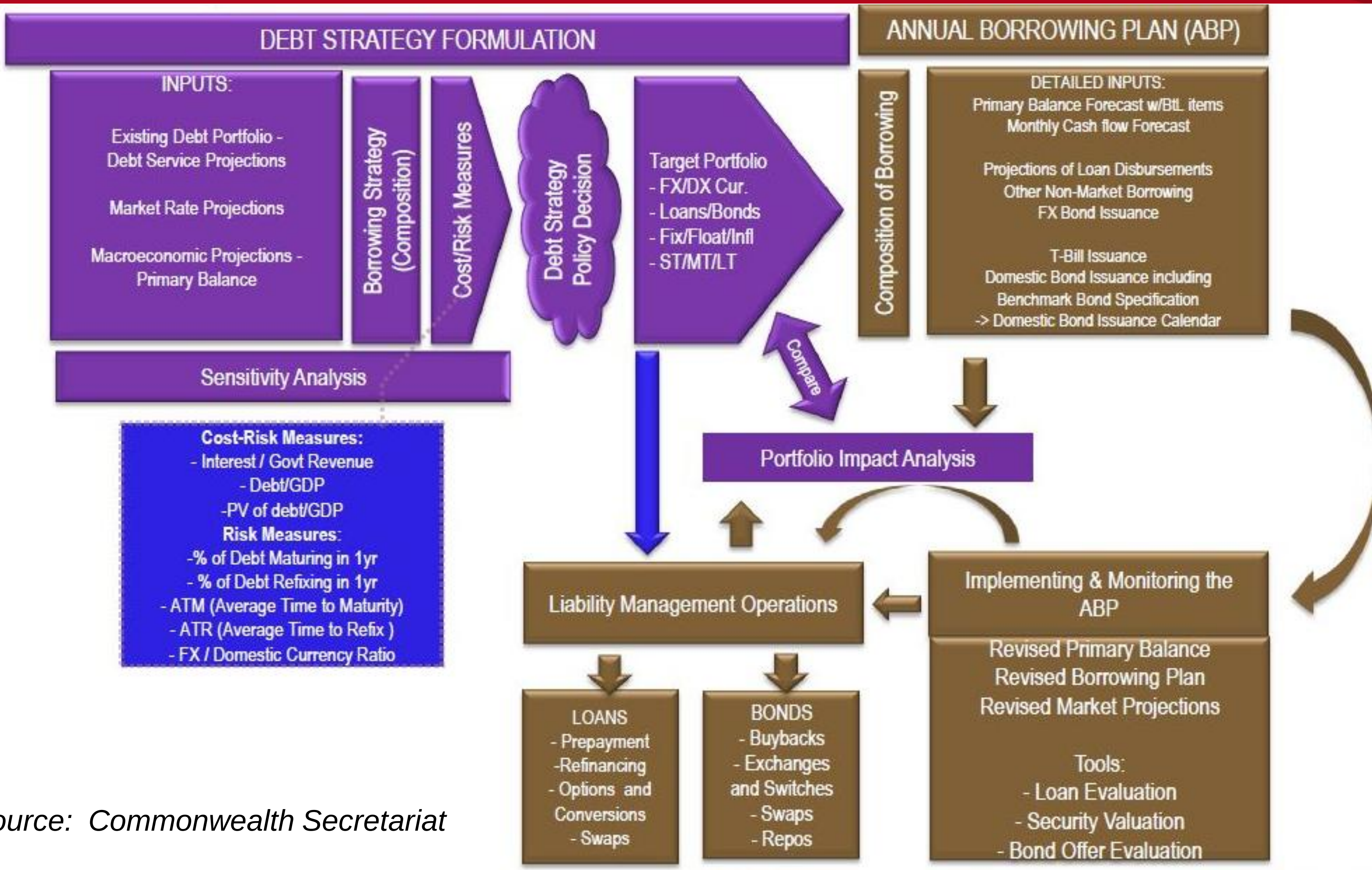
national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Public Debt Analytical Tools

Available analytical tools

- Only few developing countries have a formal debt analytical tool
- Mostly build in-house
- MTDS “Toolkit” - IMF-World Bank
- DMFAS - UNCTAD
- Horizon - Commonwealth Secretariat
- Commercial software (CreditEdge/RiskCalc)

Analytical framework of Horizon: An overview



Source: Commonwealth Secretariat

Benefits of using Horizon by National Treasury

- Improving the formulation of our debt management strategy through an explicit, transparent and audit trails on cost-risk analysis
- Use the yield curve across the term structure for better forecasting of cash flows on future borrowings and valuation of debt
- Have the formulation and implementation of debt strategy in the same system and framework for continuity and consistency
- Better integration of cash and debt management
- Improve portfolio analysis through more risk indicators
- Improve analytical reporting on debt management
- Improved monitoring of annual borrowing plan

Thank You