The World Bank

Public Debt Management

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Structure

- Public Debt Management (PDM)
- Risks in PDMs
- Medium Term Debt Management Strategy (MTDS)

PART 1

Public Debt Management

Public Debt Management

Public debt management is process of establishing and executing a strategy for managing the government's debt

- to raise the required amount of funding
- pursue its cost/risk objectives
- and meet any other public debt management goals the government may have set
  - such as developing and maintaining an efficient and liquid market for government securities

Guidelines for Public Debt Management: IMF/World Bank, 2001

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Overview: Key Questions and Tools

- **DSA: how much to borrow** so that probability of default (or distress) is low (not zero, but low and of a tolerable risk)

- **Debt Management (DeM): how much is owed and to whom** (proper records and sound procedures, mandate to borrow, operational structure etc.)

- **MTDS and cash management: how and/or from whom to borrow**, whatever “sound” amount has been pre-determined, and carry cost are kept in check because they affect **how much** the country can borrow

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Debt Management is Distinct from Fiscal Policy

Fiscal Policy	Debt Management
• is about aggregate government spending and taxation, • impact of individual tax and spending policies.	• is about setting and implementing the debt strategy
• determines the level of debt	• debt structure affects fiscal costs (interest payments)
• Main driver of fiscal (debt) sustainability	• debt structure may influence fiscal sustainability

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Basic Budget Arithmetic

Primary Balance

- Interest payments

= **Fiscal Balance**

- Principal payments

= **Funding need**

- The primary balance is decided by fiscal policy
- The interest cost are (at least partially) determined by debt management
- When the budget is presented, the focus is typically the fiscal balance

Debt Sustainability Analysis

- An analysis of a country’s projected future debt burden and its vulnerability to external and policy shocks
- Baseline and stress tests are calculated
- The baseline scenario represents the path of a country’s debt that is deemed to be the most likely, derived from a series of assumptions and projections of key macroeconomic variables
  - Fiscal Policy
  - Growth
  - Market Rates
  - BOP developments etc.
- Stress tests gauge the sensitivity of the baseline scenario to shocks and changes in assumptions

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Debt Management

- The key issue is to make sure that you know **at all times** accurately how much you owe and to whom (up to date information)

- For this you need proper procedures and debt records:
    - Proper assessment of **operational risks** so that ameliorating measures can be taken (data security measures such as back ups and off site repository)

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Debt Management

Proper governance

- Is the authorized personnel the only one borrowing on behalf of the government?
- Is this person properly and timely reporting to all stakeholders?
- Are all debts properly negotiated and contracted (without political interference)?
- Are all borrowing steps properly documented, so that there is smooth transition when key personnel rotate?
- Are all these procedures proof (auditing)?

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Debt Management

- Finally, to what extent **debt and cash management exacerbate the risk and cost** of the debt portfolio?

- Different portfolio compositions (debt maturity, denomination and fixed versus floating interest rate) have a different cost/risk mix

- And cash management affects the cost-of-carry and liquidity risk

PART 2

Risks in PDM

A Government’s Balance Sheet

- Few government’s produce balance sheets – but they have one
- Government have the power to tax – this is the most important asset
- A stylized government balance sheet

Assets	Liabilities
Stream of future tax revenues	Budgetary expenditures
Other revenues	Debt
	Contingent liabilities

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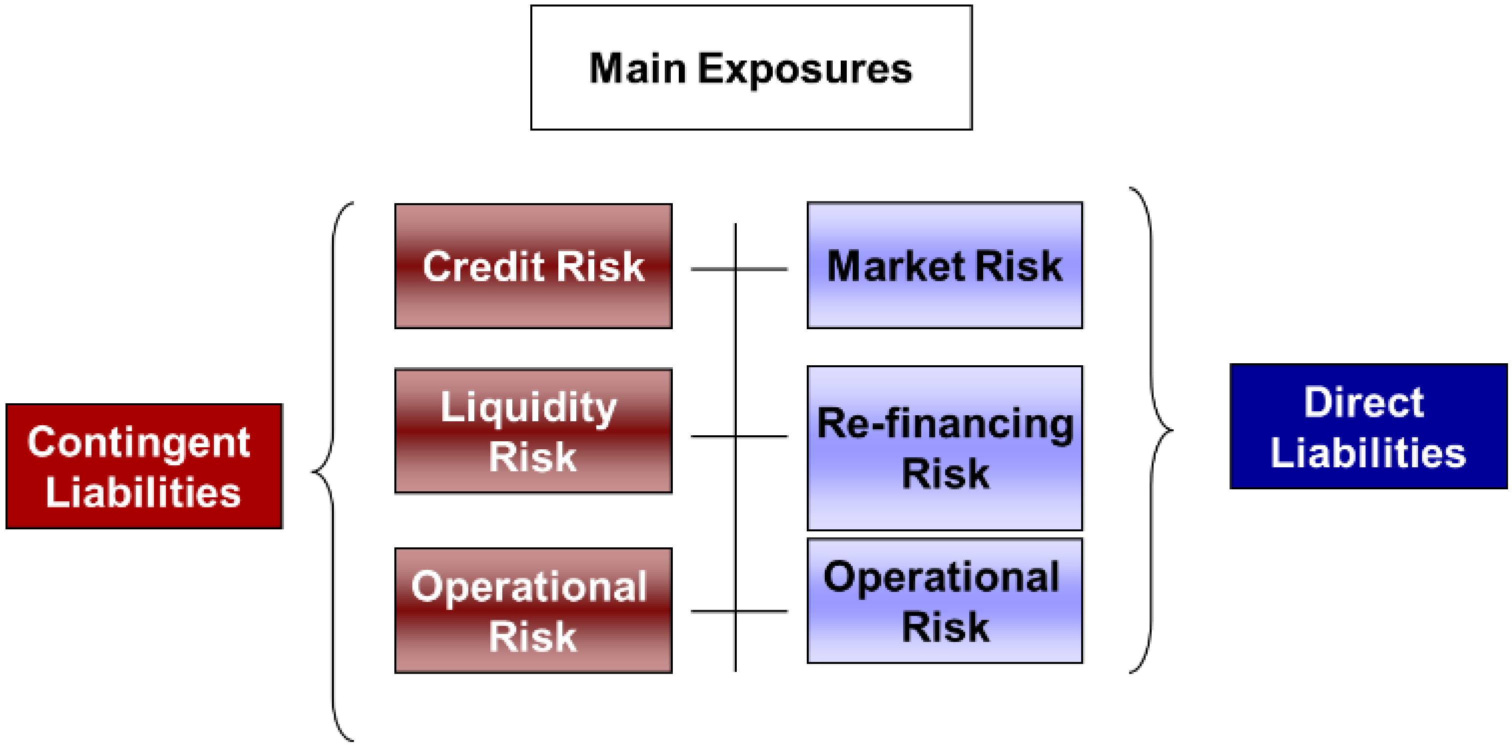
Main Exposures of Liabilities



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Risk Measures

- **Interest rate risk** is the impact on the budget of unexpected increases in interest rates

- **Currency risk** is given by the expected principal repaid and interest payments on the existing debt contracted in foreign currencies. The risk factor is the volatility of exchange rates. Foreign currency risk is the potential increase in the debt stock or debt servicing due to variations in an exchange rate

- **Refinancing risk** is the ability to meet debt principal repayments and/or the refinancing of the debt that is maturing

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Risks in PDM

- Public debt is generally the largest financial liability portfolio in a country
- The overall structure of public debt portfolio is key to a country's macroeconomic stability
- Risky public debt portfolios can intensify an economic/financial crisis
  - Mexico 1994/95: short-maturity and USD indexed
  - Russia 1998: short-maturity debt
  - Brazil 1998/99: very short maturities, indexation
  - Turkey 2001: short maturities

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Debt Management Strategy

- Public debt managers have a certain range of borrowing instruments at their disposal varying in their
  - interest rate type (fixed-float-linked)
  - currency (local-foreign)
  - maturity (short-long)

- and have to find an appropriate combination of those while raising debt on behalf of the government

- The debt management strategy expresses the desired structure for the debt portfolio

Debt Management Strategy

- A prudent debt management policy can reduce the potential impact of shocks to the government finances
  - Sharp spending cuts
  - Tax hikes
  - Social and economic costs

- Debt portfolio can be structured on the bases of cost and risk criteria to reduce vulnerabilities to various shocks

- Strategic debt targets / explicit guidelines for
  - the currency and interest rate mix of debt instruments
  - the portfolio maturity profile

Debt Management Strategy

The “optimal‟ debt structure is derived from a joint analysis of the financial characteristics of the Government’s future primary balances and the debt portfolio

- In practice this turns out to be complicated

Alternative: Make simplifying assumptions regarding the primary balance, i.e. “restricted” ALM

- Use projections of primary balance provided by the budget office as exogenously given
- Assume primary balance remains at current level
- The implication is that the debt manager should focus on reducing the variability in debt charges

PART 3

Medium Term Debt Management Strategy (MTDS)

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Medium Term Debt Management Strategy (MTDS)

An MTDS is a plan that the government intends to implement over the medium-term in order to achieve a desired composition of the government debt portfolio, which captures the government's preferences with regard to the cost-risk tradeoff

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MTDS Objectives

What: decide on the optimum portfolio among all feasible options, given the country's objectives and risk tolerance

Objectives: usually are,

- to fulfill the country's fiscal financial needs at a low risk and cost
- to support the development of the domestic financial market

MTDS Indicators

Cost measures

- Debt to GDP ratio
- Present value of debt to GDP ratio
- Interest rate payments to GDP ratio
- …

Risk is the deviation from expected cost

MTDS Methodology

Evaluate the effect of shocks to determine level of risks

- Interest rate shocks
- Currency depreciation shocks
- Combination of interest and currency depreciation shocks

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MTDS Debt Indicators

Risk measures: interest rate risks

- Ratio of fixed to variable rate debt
- Average time to maturity (ATM)
- Average time to re-fixing (ATR)
- Total debt to be re-fixed in 12 months

Risk measures: foreign currency risks

- The share of external debt in total debt
- Currency composition of the debt portfolio

MTDS Debt Indicators

Risk measures: refinancing risks

- Share of debt falling due within a specific time period (normally next 12 months)
- Shape of redemption profile
- Average time to maturity

MTDS Policy Implications

- Composition of borrowing
  - External versus domestic
  - Sources of financing
- Desirable currency composition
- Level of cost by instruments with acceptable levels of risks
  - Fixed versus variable rates
- Selection of indicators to be monitored during implementation

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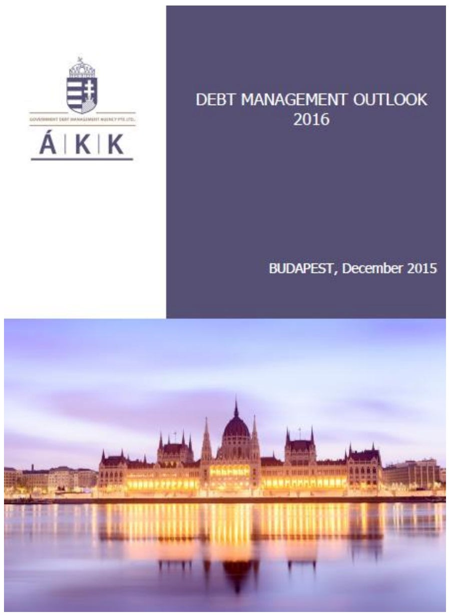
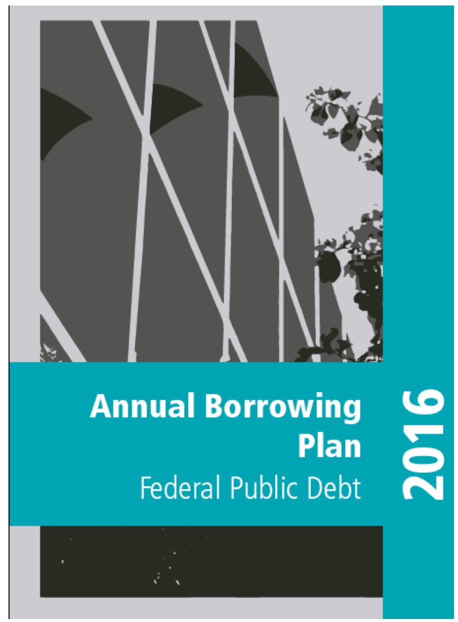
Good Debt Management Strategy Examples

Some countries publish their strategy reports



Hungary



Brazil

Czech Republic

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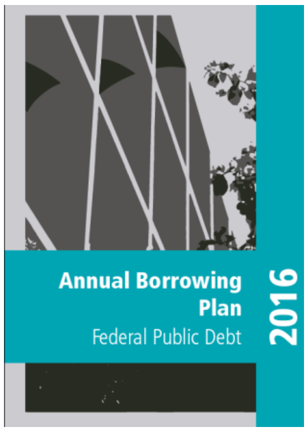
Good Debt Management Strategy Examples



Annual Borrowing Plan
Federal Public Debt

TESOURO NACIONAL

Number 16

Brasilia/2016

Chart 5 - Reference Limits for the Federal Public Debt in 2016

Indicators	2015	Limits for 2016	
		Minimum	Maximum
Stock of FPD (R$ Billion)			
FPD	2.793,0	3.100,0	3.300,0
Composition - %			
Fixed Rate	39,4	31,0	35,0
Inflation Linked	32,5	29,0	33,0
Floating Rate	22,8	30,0	34,0
Exchange Rate	5,3	3,0	7,0
Maturity Profile			
% Maturing in 12 months	21,6	16,0	19,0
Average Maturity (years)	4,6	4,5	4,7
Average Life (years)*	6,6	–	–
% Amortization in 12 months**	18,0		

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IMF-WB MTDS Analytical Toolkit

Objective	**Methodology** (developed in partnership with the IMF)	**Implementation**
• Provides guidance on the **process for developing a plan** that the government intends to implement over the medium-term (3-5 yrs) **to achieve an optimum/desired composition** of the government debt portfolio • Evaluates the **cost-risk tradeoffs** associated with different strategies.	• Guidance Note (GN) provides practical guidance on the process of developing an MTDS. • The Analytical Tool (AT) allows to undertake a cost-risk analysis to guide the MTDS decision-making process. • A Handbook explains the use of the AT.	• Implementation mission plus training follow-up missions • It is implemented jointly with the IMF • Report release at authorities' discretion • Demand driven.

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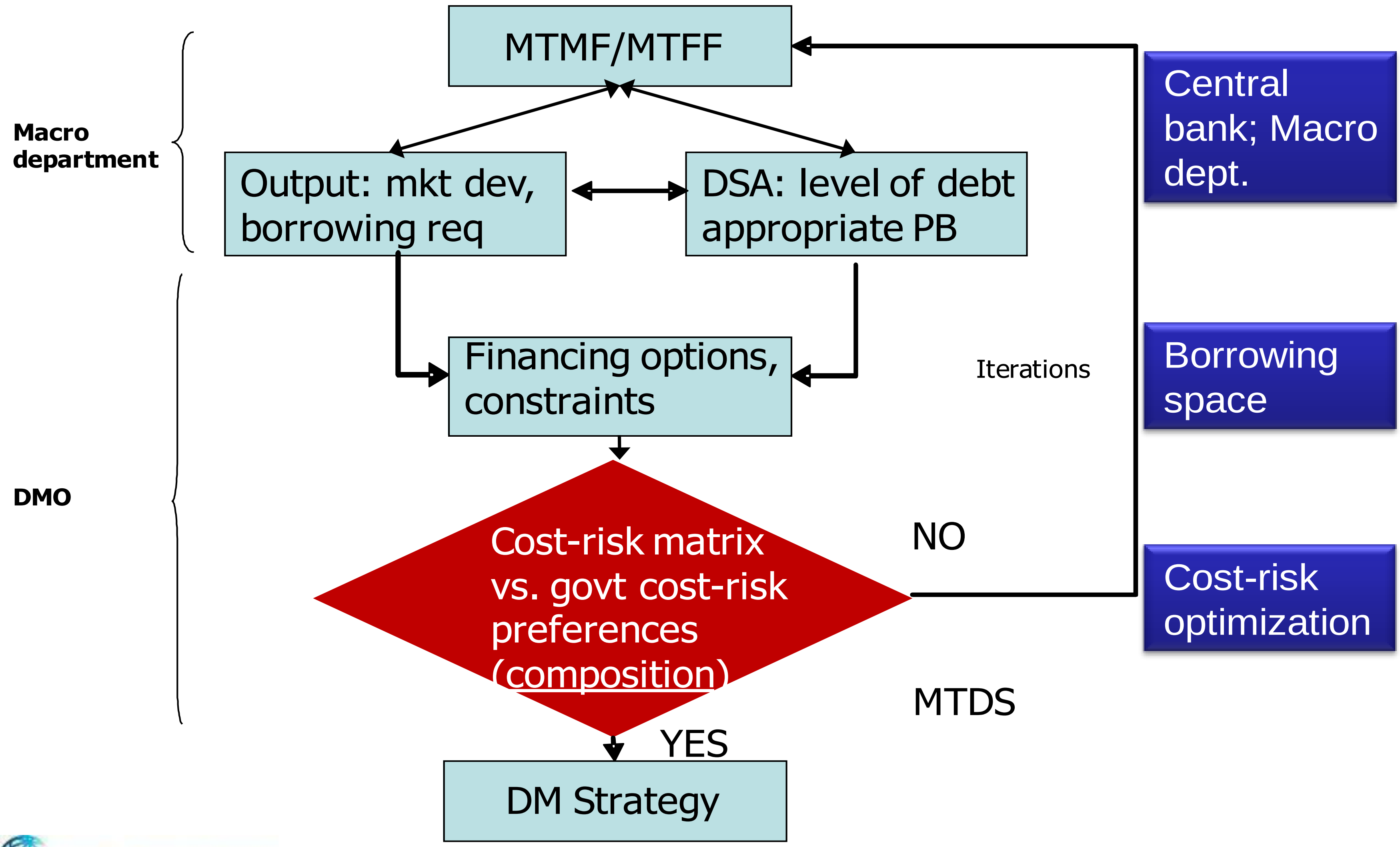
In Summary: DSA versus MTDS Process



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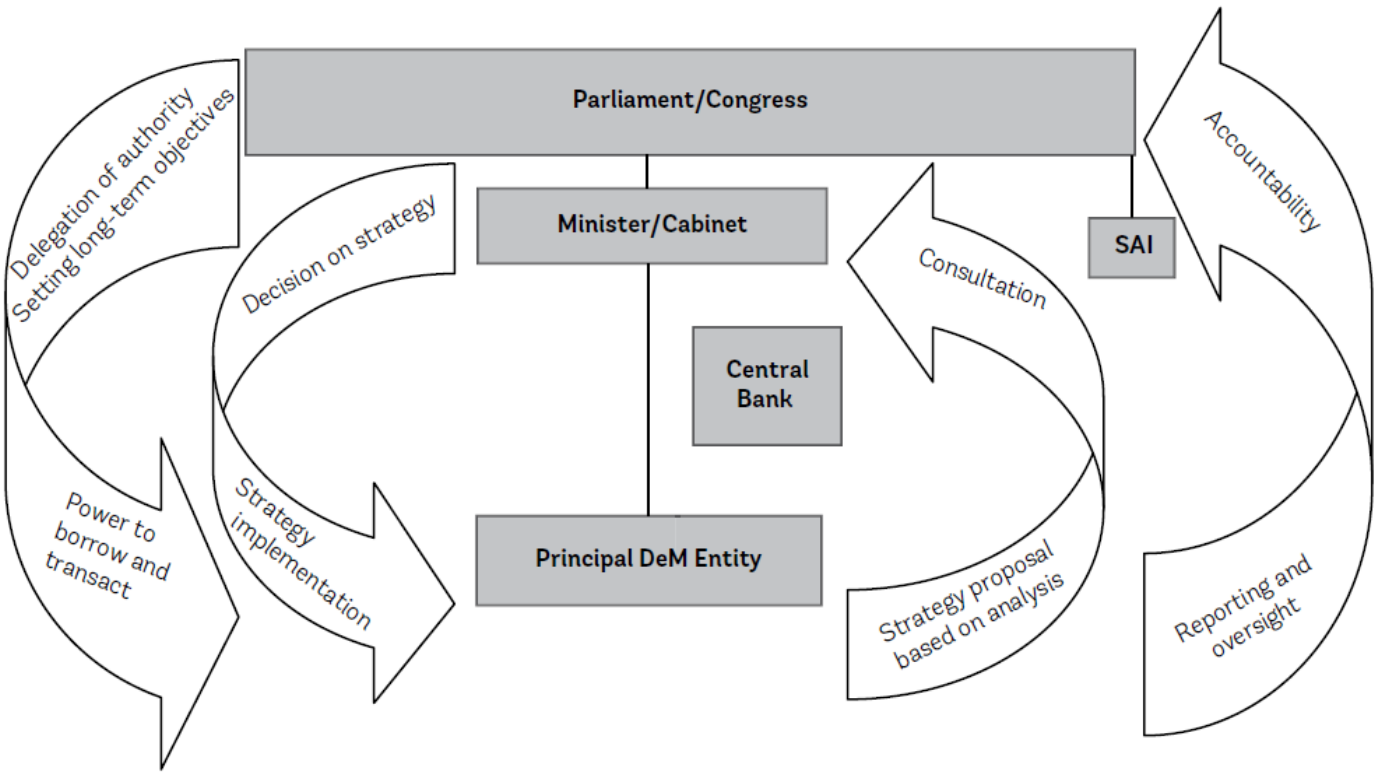
Concluding Remarks: Role of the Parliament



Source: Debt Management Performance Assessment Methodology (DeMPA)

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Thank you…

For more information: www.worldbank.org/debt

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