



A Strategy for Managing Government Debt in a Risk Management Framework

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- Debt management: from objectives to strategy
- ALM: a useful framework to derive the notions of cost and risk
- A debt management strategy: beyond a cost-risk portfolio analysis
 - Country examples
- Summary

“Public debt management is the process of establishing and implementing a strategy for managing debt to achieve the government’s financing, risk and cost objectives and other goals, such as developing the domestic debt market”

Guidelines for Public Debt Management, 2001

What are the desired financial characteristics of the debt portfolio?

- Share of domestic versus external
- Currency mix of external debt
- Share of fixed versus floating interest rate debt
- Maturity profile
- Share of nominal versus inflation-indexed (or other index)

...and the strategy should be driven by clear objectives



- Most basic: finance the government and meet servicing obligations
- Minimize cost *but subject to containing risks and/or over a long timeframe*
- May include promoting the development of the domestic debt market

Moving from objectives to a strategy is not trivial

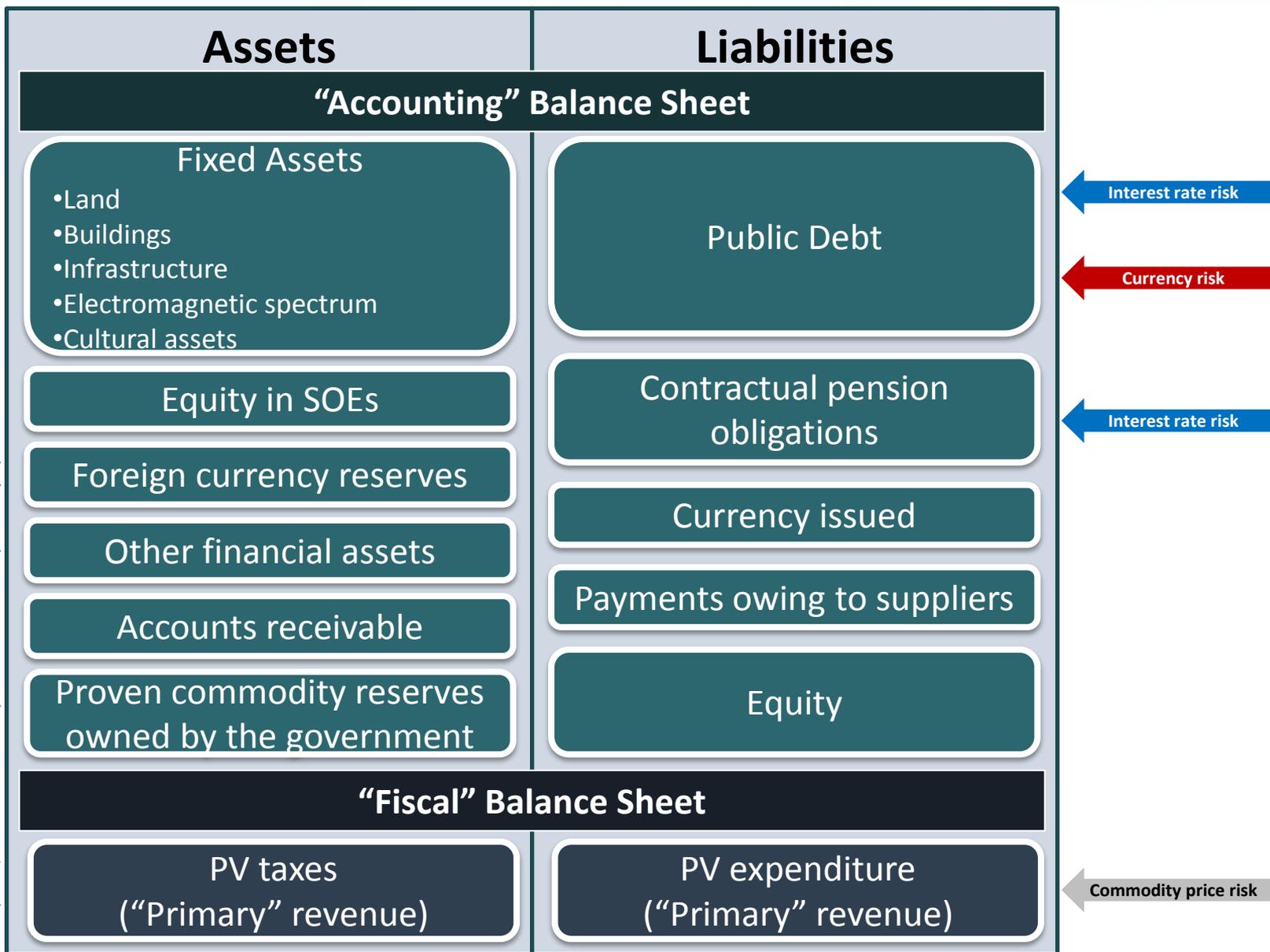


Objectives typically refer to “costs and risks” – how should these be defined for a government debt portfolio?

- “Cost” – interest payments on debt? May not be a sufficient measure
- “Risk” – the negative effects that could arise from an undesirable outcome
- For a government debt manager an undesirable outcome is an increase in the cost of debt servicing; the impact is more severe if this occurs when revenue is low
- To assess risk arising from government debt, need an understanding of the assets and revenue

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The government balance sheet provides a helpful framework



...which is clearer in the simplified government balance

- Stylized government balance sheet

Assets	Liabilities
•Stream of future revenues	•Stream of future expenditures •Debt

- Should think less of accounting, and more of an economic balance sheet
- Government debt may best denominated in LX and contracted at long term fixed rates

The analysis can be also undertaken on a flow basis



Revenues

- Expenditures

Primary balance

- Interest payments on debt

= **Fiscal Balance**

+ Redemptions of debt

= **Funding need**

- When the budget is presented, the focus is typically the fiscal balance

...with the idea that debt management help tax smoothing



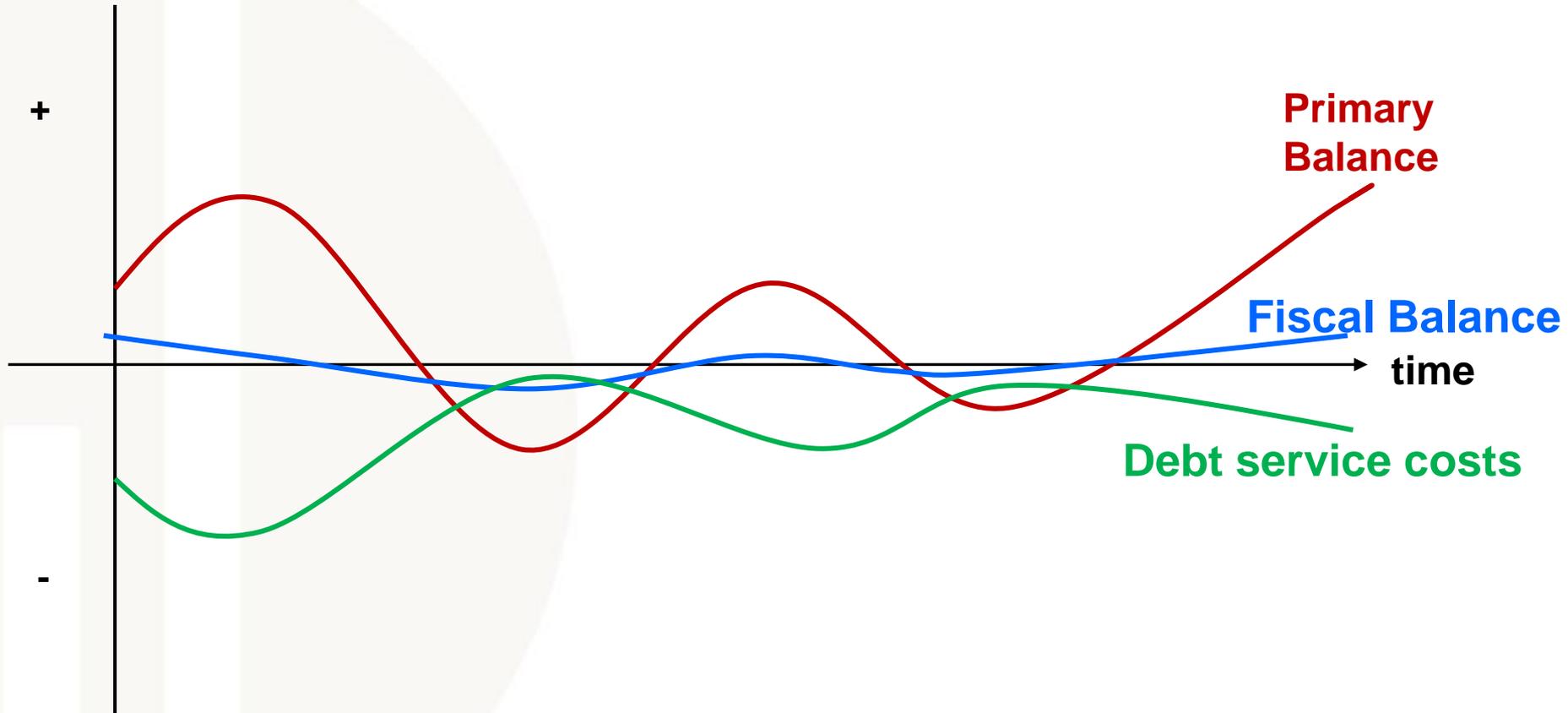
- Changes in tax rates affect economic welfare
 - Tax revenues increase during economic boom and fall during recession
 - Economic literature suggest that the government should try to smooth inter-temporal taxes

- Debt service shouldn't add to the volatility of the primary surplus
 - Debt service that co-moves with the primary surplus reduces risk of fiscal adjustment, and supports a balanced budget over the business cycle
 - The challenge is identifying a debt structure that minimizes the risk of fiscal adjustment

Leading to debt instruments that correlate with the primary balance



% GDP



...and we arrive to the same conclusions

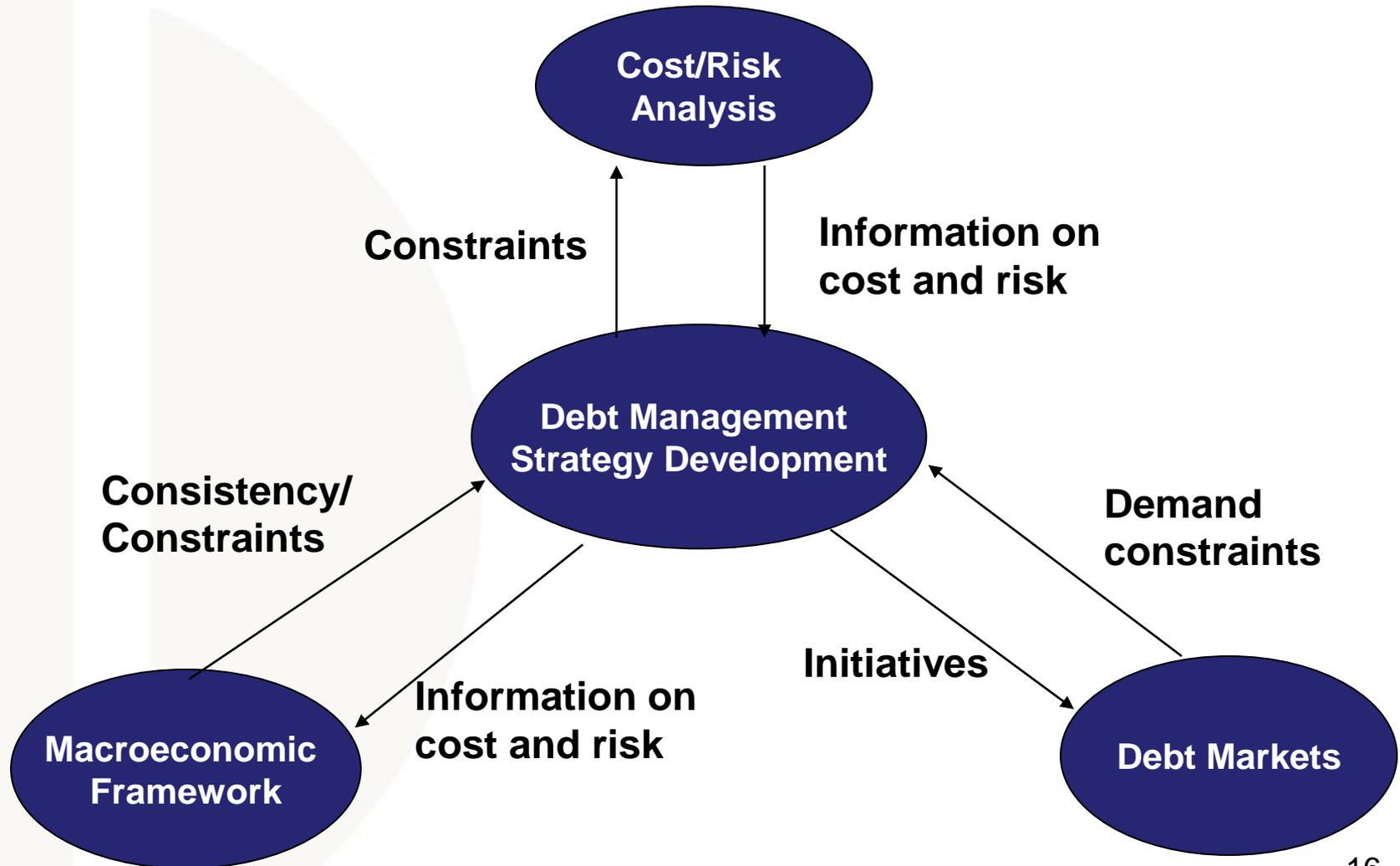


- An interesting instrument could be a bond linked to GDP... but there is no market for it (problems include measurement of GDP, revisions, time lag)
- Challenges to implementing tax smoothing: uncertainty about the nature of future shocks
- However, intuitive conclusions could be extracted from an ALM analysis
 - In general, debt managers will seek to reduce the variability of debt service
 - LX and long-term fixed instruments avoid a double whamming

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- A debt management strategy is not an exercise of finding an efficient frontier and selecting an optimal portfolio based of the cost risk trade offs
 - Cost can/should be measured in different ways
 - Risk has different dimensions
- A debt management strategy needs to be part of a consistent policy mix that includes monetary and fiscal policy
- It also plays a major role in the development of the domestic debt market

A debt management strategy results from these interactions

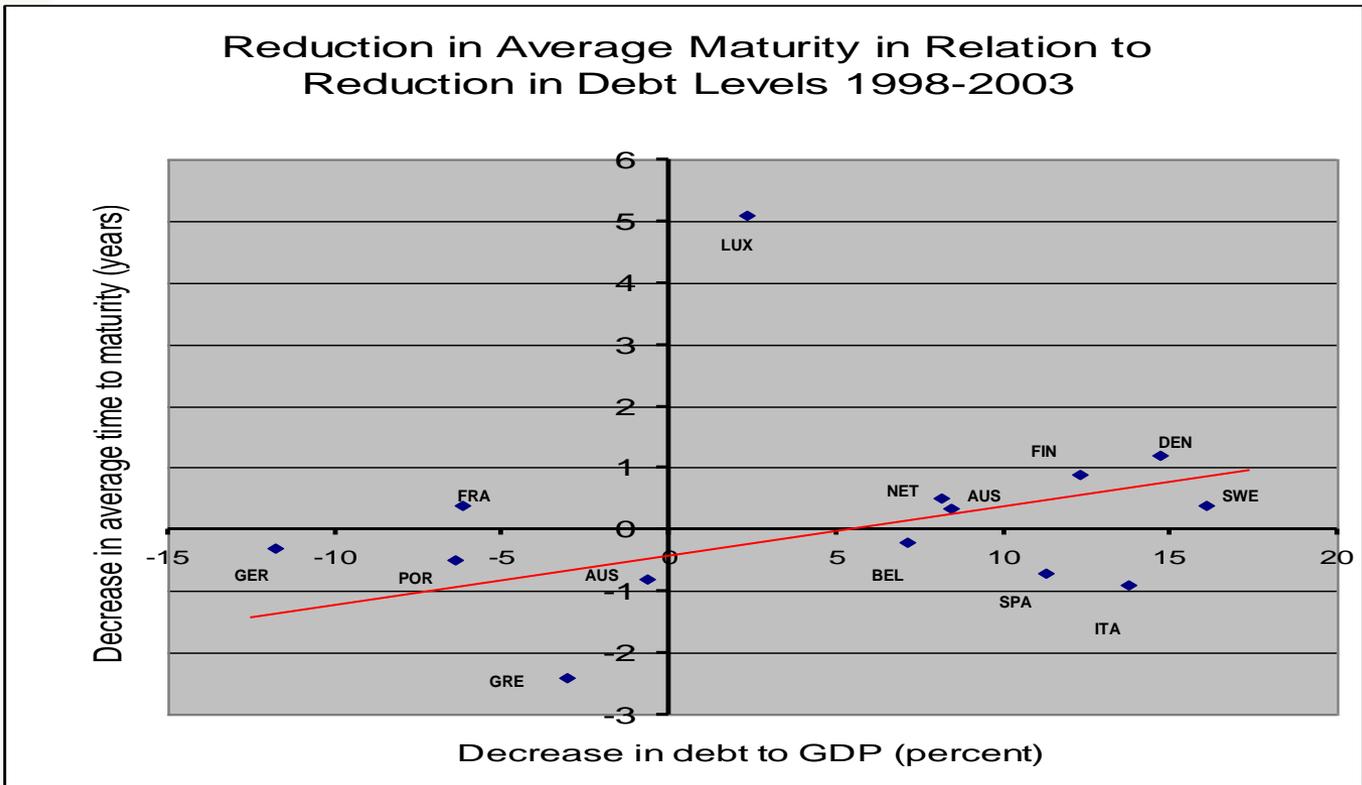


The importance of the factors vary from country to country



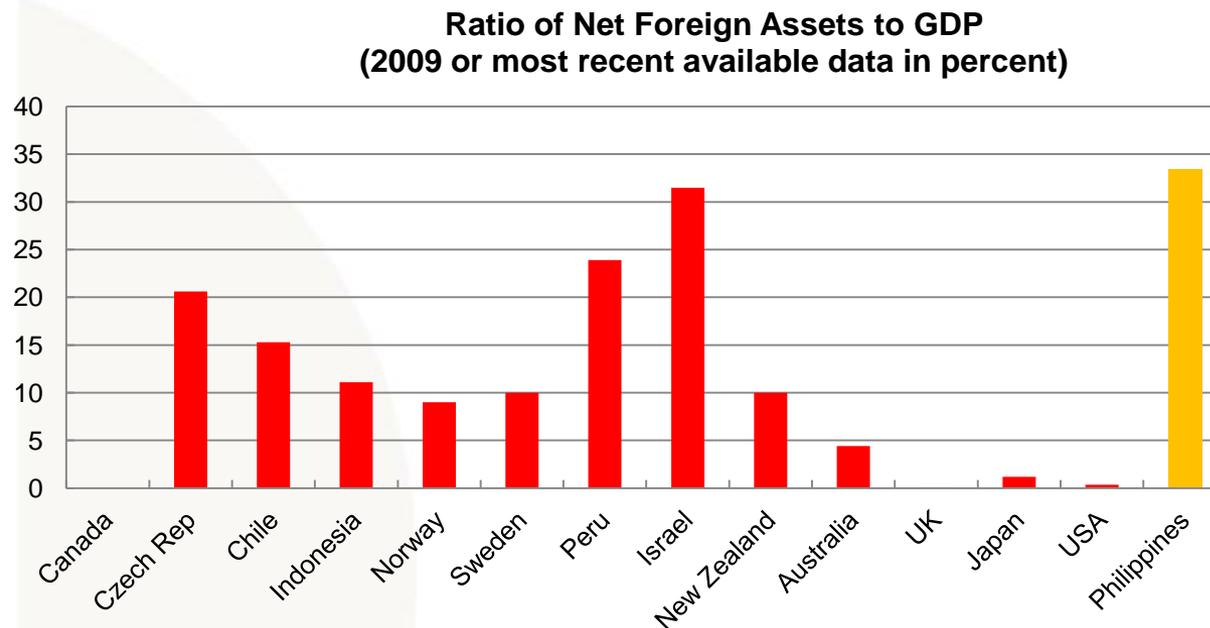
- Countries with deep and developed markets and stable macro spend more in cost-risk analysis
 - Modeling of interest rates
 - Cost at risk analysis
- Low income countries with limited capacity to access the markets have limited choices
 - Mainly borrow from multilaterals at fixed terms
 - Use of the domestic markets is a residual
- Middle income countries are somewhere in between

EU countries prioritized cost reduction before the global financial crisis



- Countries with a heavier debt burden tend to extend ATM giving priority to risk reduction over cost savings. Countries whose debt burden gets lighter lean towards borrowing strategies that are more cost-effective
 - E.g. Denmark lower debt allowed reducing duration by one year in the last six years. Assuming the same relative risk taking duration will fall to two years by 2012

The Philippines: BSP holds large quantities of FX assets



- At present, FX borrowing needs to be sterilized, so its overall cost for the public sector exceeds the FX interest rate
- But there is a need to diversify funding sources to face macro risks
 - Need for reliable funding sources e.g. domestic market
 - Maintaining some FX borrowing

- Risk in the debt portfolio seems moderate...
 - Exposure to variable rates and currencies other than the USD are low
 - ATM is high and concentration of redemptions in the short-term is low
- ➡ It might mean that there is room to improve costs

- Macroeconomic risks calls for diversification of funding sources and low concentration of repayments
 - Open economy exposed to economic and financial shocks
 - Contingent liabilities

...so the strategy should reflect what the government wants in the domestic market



- Diversification of funding sources and lack of concentration facilitate countercyclical policing and mitigate risk of sudden stops
- The main driver of the strategy are the plans for market development based on the build up of benchmark bonds
 - Treasuries of the commercial banks, take the lion share of the market: instruments have to be tailored to them
 - Making the Notes Euroclearable will build connectivity among two markets
 - Facilitate market making to PDs: repos and securities lending
 - Improve functioning of the secondary market: reconsider trading platform.

- ALM is a useful framework to think about the notions of cost and risk which are key components of a debt management strategy
- However, ALM provides limited help in terms of the precise composition of the debt portfolio
- A debt management strategy is not the output of a cost-risk analysis of a liability portfolio
- In some countries macroeconomic considerations could dominate the strategy design. In others domestic debt market development becomes the driving force

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