

Sovereign Debt Management: A Risk Management Focus

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INTRODUCTION

International financial markets assign the status of “sovereign debt” to the public debt issued by governments. This status reflects the highest quality debt issuers in the market, and most with the strongest credit rating. Domestic public debt has a very significant and unique role as a high credit quality investment with normally a high degree of liquidity, best illustrated by the US Treasury market.

As a result of this status, sovereign borrowers are expected to have a risk management culture, which fully reflects the government’s risk preferences and the special set of responsibilities associated with representing the government in the international financial markets. These responsibilities are considerable, particularly if the government’s reputation in international financial markets is to be maintained at the highest level.

Many countries have clear and orthodox objectives for monetary policy, normally based on annual inflation targets. On the other hand, government objectives for sovereign debt management are often not well specified in terms of cost and risk. In many countries, debt management policy is undertaken with a limited understanding of the government’s risk preferences and its tolerance to risk.

Over the past 10-15 years, governments, particularly in the OECD countries, have recognised this shortcoming and taken measures to address this by establishing an autonomous debt management office or agency with the sole responsibility for public debt management.

Sovereign Debt Management

What is Sovereign Debt Management?

The IMF/World Bank¹ define sovereign debt management as “the process of establishing and executing a strategy for managing the

government’s debt in order to raise the required amount of funding, achieve its risk and cost objectives, and to meet any other sovereign debt management goals the government may have set, such as developing and maintaining an efficient market for government securities. The main objective of public debt management is to ensure that the government’s financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk. This involves establishing a framework for the debt managers to identify and manage trade-offs between expected cost and risk in the government debt portfolio.” At the basic level, sovereign debt management addresses the structure and composition of the public debt portfolio, including the desired mix in terms of currency, interest rate and maturity profile.

Why is Sovereign Debt Management Important?

A government’s debt portfolio is usually the largest financial portfolio in the country. It often contains complex and risky financial structures, and can generate substantial risk to the government’s balance sheet and the country’s financial stability. Therefore, sound risk management and sound public debt structures are required by governments to reduce the exposure to market, funding or rollover, liquidity, credit, settlement and operational risks.

Over recent years, debt market crises have highlighted the importance of sound debt/risk management practices and the need for an efficient and well-developed domestic capital market. This can reduce the susceptibility of an economy to adverse economic and financial shocks. However, it is also important for a government to maintain a macroeconomic policy setting that ensures sound fiscal and monetary management.



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IMF/World Bank Public Debt Management Guidelines

The recently released IMF/World Bank Guidelines on Public Debt Management have been designed to assist policymakers in considering reforms to strengthen the quality of their public debt management and reduce their country’s vulnerability to international financial shocks. The Guidelines cover both domestic and external public debt and encompass a broad range of financial claims on the government.

The Guidelines identify areas in which there is increasing convergence on what are considered prudent sovereign debt management practices. These include:

- recognition of the benefits of clear objectives for debt management;
- weighing risks against cost considerations;
- the separation and coordination of debt and monetary management objectives and accountabilities;
- a limit on debt expansion;
- the need to carefully manage refinancing and market risks and the interest costs of debt burdens;
- the necessity of developing a sound institutional structure and policies for reducing operational risk, including clear delegation of responsibilities and associated accountabilities among government agencies involved in debt management.

Risk Management Focus

Sovereign Debt Management with a Risk Management Focus

It is our view that the prime focus of any government debt management operation should be on risk management. The government should be risk averse in its financial management, therefore, protecting against adverse events that may impact negatively on the government’s finances.

Three main considerations underlie the government’s preference for low risk in its portfolio management:

- Evidence suggests that individuals or, more relevant in a public choice

context, “median voters”, tend to be risk averse in their decision-making and expect the government to reflect this preference in managing its interests;

- Losses incurred in the government’s debt portfolio impose costs, which most taxpayers are unable to avoid. Taxpayers have limited practical scope to foresee and undo the consequences of poor financial decisions by the government. Risk-averse policies reduce the risk of surprises, providing greater certainty for planning;
- The government does not have any competitive advantage over other market participants in attempting to derive excess returns from its debt management, except for its privilege as a tax and regulation-exempt institution and internal information on the fiscal situation or government policy objectives. However, most governments would not consider it is ethical for these exemptions to be exploited.²

The determination of an overall government debt management objective has been tackled by a number of developed economies. Most have been established with the objective of cost minimisation subject to an acceptable level of risk or minimisation of risks subject to the expected costs of risk reduction.

Examples of countries’ debt management objectives are:

- **Australia** “....to minimise the long-term market value of the public debt (cost) and contain the volatility of budgetary debt cost (risk)....”
- **Canada** “....to provide stable low-cost funding for the Government and to maintain a well functioning market for Government of Canada securities.”
- **Denmark** “....to achieve the lowest possible long-term borrowing costs, to keep the risk at an acceptable level, to build up and support a well-functioning, effective financial market....”
- **Ireland** “....to contain the level and volatility of annual fiscal debt service costs, contain the government’s exposure to risk....”

- **Italy** “....to minimise the financing cost for a certain level of financial risk, in particular that of refinancing and interest.”
- **New Zealand** “....to maximise the long-term economic return on the Government’s financial assets and debt in the context of the Government’s fiscal strategy, particularly its aversion to risk....”
- **Sweden** “....to minimise the cost of borrowing within agreed risk tolerances....”
- **United Kingdom** “....to carry out the Government’s debt management policy of minimising finance costs over the longer term, taking into account risk, and to manage the aggregate cash needs of the Exchequer in the most cost efficient way.”

Sovereign Debt Management within an ALM Framework

There is an increasing trend in OECD countries to move to an Asset-Liability Management (ALM) framework. This uses a standard company approach to establish a sovereign balance sheet, allowing the government to maximise the potential for natural hedges and providing the basis for evaluating cost/risk trade-offs in an integrated fashion. This enables the government to examine its assets and its obligations and to explore whether the financial characteristics associated with those assets can provide insights for managing the cost and risk of the government’s liabilities. This type of risk analysis can assist a government to design a comprehensive strategy to reduce the overall risk in its balance sheet.

The following table sets out the assets and liabilities that make up the government’s balance sheet:

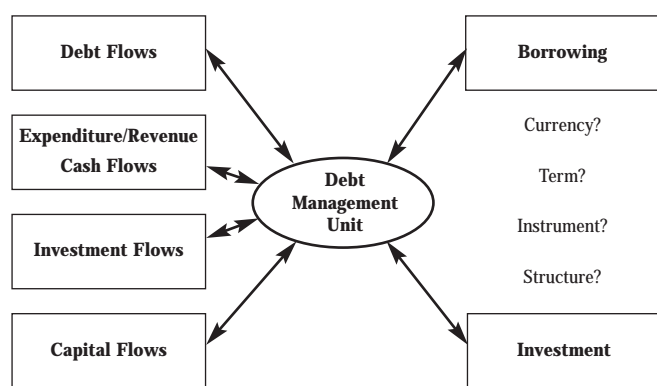
Assets	Liabilities
<ul style="list-style-type: none"> • PV of income flows • Foreign exchange reserves • Marketable securities • Onlending to State Entities • Investments in State Entities • Investment in <ul style="list-style-type: none"> • infrastructure (eg roads) • property (eg Govt buildings, schools etc) • other assets (eg military) 	<ul style="list-style-type: none"> • PV of expenditure obligations • Public debt • PV of contingent obligations • Equity (net worth)



The need for an Integrated Approach

Governments are continuing to enhance their debt management capacity by ensuring the debt managers are more accountable, their activities are more transparent, and performance measures are established often on a risk-adjusted basis. As a number of countries are currently running fiscal surpluses, the debt management operation has become more active in asset management within an asset-liability management framework.

The information flows necessary by sovereign debt managers to make decisions on borrowing and investments can be complex, particularly if all of the functions are not integrated or consolidated into a single debt management unit. This complexity can be illustrated using the following diagram:



Many countries have difficulty accurately forecasting debt and investment cashflows (particularly if there is a significant amount of floating rate and/or short-dated assets and liabilities), government's expenditure/revenue cashflows and capital flows (particularly if the government is active in its privatisation program). Some countries have implemented a government cash management regime with incentives to provide better forecasting and management of expenditure/revenue cashflows. It is important, however, that there is a coordinated approach to all these cashflows in order to assist the sovereign debt managers to make decisions on its borrowing and investment program. The

establishment of an integrated debt management unit can facilitate this coordinated approach.

A major issue confronting governments is the separation of debt management policy and monetary policy. Conflicts can, and sometimes do arise, between monetary and debt management authorities as a result of differences in their objectives. For example, debt management focuses on the cost/risk trade-off whereas monetary policy focuses on price stability. As an example, some central banks may prefer that the government issues inflation-indexed debt to bolster the credibility of monetary policy while the debt managers may believe that the market for such debt has not been fully developed. Conflicts can also arise between the debt managers and fiscal authorities - such as with the budget cash flows where issuing zero coupon

debt can transfer the debt burden to future generations or budget years.

Governments have overcome this problem by ensuring clarity in the roles and objectives for debt management and monetary policy. The establishment

of an autonomous debt management unit has often assisted this process as it has led to greater transparency and accountability.

Sovereign Debt Management Practices

The countries that have set the highest standards in sovereign debt management are Ireland, New Zealand, Sweden and the United Kingdom. This is because their approach to sovereign debt management and their track record over the past 10-15 years has established a benchmark for other countries to match. Other countries such as Australia, Austria, Belgium, Canada, Denmark, Finland, Hungary, Netherlands, Portugal, Spain and the United States have all established a sophisticated debt unit responsible for public debt management. Sovereign

debt management practices in Australia, New Zealand and a selection of other OECD countries are set out below.

Australia

The Commonwealth of Australia has followed the trend of most OECD countries by establishing a sovereign debt management unit, the Australian Office of Financial Management (AOFM), in July 1999. The AOFM, which is located within the Treasury Portfolio, has the objective "to raise, manage, and retire Commonwealth debt at the lowest possible long-term cost, consistent with an acceptable degree of risk exposure."³

The AOFM has to date had a liability management focus. This has been the standard approach across most OECD countries, where the central bank manages the financial assets including the foreign exchange reserves and cash management is managed across a number of government entities. In this environment, it is normal for the debt management unit to focus very much on the risks around the budget debt service costs.

The AOFM has established a risk management framework that strikes a balance between cash flow and the market value of public debt. Specifically, the cost/risk analysis uses a budgetary cash debt cost concept modified to include amortised FX gains and losses on the principal (Debt Financing Cost - DFC) and volatility expressed by a Sharpe likelihood ratio of:⁴

$$\frac{\text{Expected DFC} - \text{Threshold DFC}}{\text{Standard Deviation of DFC}}$$

The AOFM is currently reviewing this orientation of cost and risk as part of a wider review of the established benchmark for the management of portfolio market risk.

New Zealand

The New Zealand Government established a sovereign debt management unit, the New Zealand Debt Management Office (NZDMO), in July 1988. The NZDMO, which is located within the Assets and Liabilities Branch of the Treasury, has the goal "to maximise the long term economic return on the Crown's



financial assets and debt in the context of the Government's fiscal strategy, particularly its aversion to risk."⁵

In line with the Crown's policy to reduce its exposure to foreign currency fluctuations, net foreign currency debt was eliminated in the 1997 financial year. Domestically, the Crown manages the composition of the portfolio to diversify risk and reduce cost. The NZDMO is committed to the principles of transparency, neutrality and evenhandedness. Over time, adhering to these principles should lower the Government's domestic borrowing costs by reducing price uncertainty and encouraging competitive bidding in tenders.

NZDMO has developed a fully integrated approach for the management of assets and liabilities, an approach that has not been replicated by any other government. However, governments are now increasingly moving in this direction as fiscal surpluses and lower public debt levels have increased the focus of the debt management unit on asset management.

This integration is best illustrated with the foreign currency financial assets and liabilities. The foreign exchange reserves, which are managed by the Reserve Bank of New Zealand (RBNZ), are immunised by foreign currency debt issued by the NZDMO. The RBNZ specifies the currencies and term structure and then enters into a transaction with the NZDMO to create a RBNZ liability and a Crown asset. This zero net foreign currency position is unique across the OECD countries. This approach may not be suitable for other countries, especially when there are significant fluctuations in the level of foreign exchange reserves, which may be due to the exchange rate regime.

Other OECD Countries

Most OECD countries follow the Australian approach with a primary focus on liability management and the budgetary cost of debt. Most have developed portfolio benchmarks and limits around which the debt management unit can operate. Some of the major innovations and new

developments in sovereign debt management are:

- a few debt management units (eg, Canada, Denmark, Italy) have been developing a Cost-at-Risk (CaR) approach similar to Value-at-Risk, but focussing on the volatility of the budgetary cost of debt;
- a number of debt management units (eg, Ireland, UK and potentially Australia) now have an increasing asset management role as fiscal surpluses are maintained and governments are creating dedicated pension funds;
- the National Treasury Management Agency of Ireland has been assigned new functions that include:
 - > responsibility for managing the National Pension Reserves Fund;
 - > responsibility for ensuring that the State's liability and associated legal and other expenses for claims against the State are contained at the lowest achievable level;
 - > the provision of a central treasury service to Local Authorities, Health Boards, Vocational Education Committees and other public bodies;
 - > an investment service to Ministers who have funds under their management or control.

These functions follow best practice in the private sector and to some degree replicate the role of the Australian State Borrowing Authorities.

Conclusion

There are some significant challenges for a number of sovereign debt managers. One of the most significant challenges we believe is the result of ongoing and often sizeable fiscal surpluses and the impact this will have on the level of public debt. Given the importance of domestic public debt markets both for international and domestic market participants, sovereign debt managers will need to determine whether there is a minimum level of domestic public debt that they should retain. If so, what do they do with the surplus funds and what asset management approach should be used?

Sovereign debt management is not

that well understood throughout the Asia-Pacific region. There is certainly not the same level of knowledge and understanding as in Europe and North America where sovereign debt managers have been regularly meeting over the past 12-14 years at the annual Government Borrowers Forum and OECD Working Party on Government Debt Management meetings. In addition, the IMF, World Bank, OECD and other European Union bodies have facilitated workshops and conferences to assist countries to enhance and develop their sovereign debt management capability.

We trust that this article has helped you to gain a greater understanding of this aspect of public sector and financial risk management.

¹ "Guidelines for Public Debt Management", prepared by the Staffs of the International Monetary Fund and the World Bank, March 21 2001: www.worldbank.org/fps/guidelines

² "New Zealand's Experience with Autonomous Sovereign Debt Management," by Graeme Wheeler, November 1996.

³ Australian Office of Financial Management Annual Report 1999-2000.

⁴ "Risk Models for Sovereign Debt Management", presentation by Peter McCray, Deputy Chief Executive, AOFM at the Second Sovereign Debt Management Forum held in Washington D.C. on November 1-3, 1999.

⁵ The Financial Statements of the Government of New Zealand for the year ended 30 June 2000.