

Theory of Debt Management

Asst. Prof. Dr. Nada Chunsom
School of Development Economics,
National Institute of Development Administration (NIDA)

Email: nada@nida.ac.th

June 20, 2017

Presentation Outline

- What is public debt management and why is it important?
- Optimal Government debt management: theoretical issues, portfolio management issues, institutional issues and current debates
- Debt Management Guidelines
 - Debt management objectives and coordination
 - Transparency and accountability
 - Institutional Framework
- Debt Management Strategy
- Risk Management Framework
- Development and maintenance of an efficient market for government securities
- Discussion and Q&A

What is public debt management and why is it important?

- **Sovereign debt management** is the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk.

What is public debt management and why is it important?

- In a broader macroeconomic context for public policy, government should seek to ensure that both the level and rate of growth in their public debt are on a sustainable path and that the debt can be serviced under a wide range of circumstances, including economic and financial market stress, while meeting cost and risk objectives.

What is public debt management and why is it important?

- Every government faces policy choices concerning debt management objectives, in particular its preferred risk tolerance, the parts of the government balance sheet that debt managers should be responsible for, the management of contingent liabilities, and the establishment of sound governance for public debt management.

What is public debt management and why is it important?

- Poor structured debt portfolios, in terms of maturity, currency, or interest rate composition and large contingent liabilities, have been important factors, in inducing or propagating economic crises in many countries throughout history.

What is public debt management and why is it important?

- Sound risk management practices are essential given that a government's debt portfolio is usually the largest financial portfolio in the country and can contain complex and risky financial structures, which have the potential to generate substantial risk to the government's balance sheet and overall financial stability.

What is public debt management and why is it important?

- Debt crises have highlighted the importance of sound debt management practices and the need for an efficient and liquid domestic capital market.

Optimal Government Debt Management: Theoretical Issues

- Ricardian Equivalence (Debt = Future Taxes)
 - Prudent debt management helps smooth distortionary taxes.
 - Another way to see this: *insurance against having to raise income tax following adverse spending or productivity shocks.*
 - **Ideal Theoretical Solution:** Issue state-contingent debt with low returns in bad states of the world.
- But standardization of debt contracts is important for liquidity, and for minimizing financial innovation costs.
 - State-contingent debt unworkable; portfolio management of debt is critical.
 - **Real World Solution:** Complex debt portfolio management problem, with liability constraints.

Optimal Government Debt Management: Portfolio Management Issues

- **Nominal or Inflation-Indexed Debt?**
 - Public spending/real shocks → nominal debt optimal (inflation reduces real value of payments when financing needs increase).
 - Monetary shocks → indexed debt optimal (otherwise inflation causes changes in tax policy to offset real value of debt changes).
 - Optimal policy will have a mix.
- **Currency Composition?**
 - Complex issue – depends on correlation of foreign and domestic output and monetary shocks.
 - Foreign debt not always bad – depends on composition of shocks.
 - Optimal policy will have a mix.

Optimal Government Debt Management: Portfolio Management Issues

- Optimal Debt Maturity?
 - Short-term debt potentially “cheaper” because of liquidity demand at the short-end
 - Tradeoff against rollover risk. Another tricky problem.
- Nominal Debt and Adverse Selection?
 - Theoretically, nominal debt creates an inflationary bias.
 - In practice, this is not a big issue. Reputational costs...
 - Little evidence of high inflation high even during growth crises.
 - Adverse selection also possible in fiscal policy.

Optimal Government Debt Management: Institutional Issues and Current Debate

- Main issue I: Optimal debt management is linked inextricably with the conduct of fiscal policy.
- Main issue II: Optimal debt management is complex, and requires serious asset management capability.
- Main issue III: Open economy means need for institutional knowledge of foreign and domestic money markets.
- Possible solution: Incubate new PDMA in a pre-existing institution with a clearly defined path to a spin-out?



Debt Management Guidelines

Debt Management Objectives and Coordination

- *Objective*—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.
- *Scope*—Debt management should encompass the main financial obligations over which the central government exercises control.

Debt Management Objectives and Coordination

- *Coordination with monetary, fiscal, and financial sector policies*
 - Debt management should be anchored in sound macroeconomic and financial sector policies to ensure that the level and rate of growth in public debt are sustainable.
 - Debt managers, fiscal and monetary authorities, and financial sector regulators, should share an understanding of the objectives of debt management, fiscal, monetary, and financial sector policies given the interconnections and interdependencies between their respective policy instruments.

Debt Management Objectives and Coordination

- *Coordination with monetary, fiscal, and financial sector policies*
 - In principle, there should be a separation of debt management policy and monetary policy objectives and accountabilities.
 - Debt managers and fiscal and monetary authorities should share information on the government's current and future cash flow needs.
 - Although the responsibility for ensuring prudent debt levels and conducting DSA lies with fiscal authorities, debt managers should monitor any emerging debt sustainability problems based on portfolio risk analyses and market reactions observed when conducting debt management operations, and inform the government on a timely basis.

Transparency and Accountability

- *Clarity of roles, responsibilities, and objectives of government institutions responsible for debt management*
- *Public availability of information on the reporting of debt management strategies and operations*
- *Accountability and assurances of integrity by agencies responsible for debt management*

Institutional Framework

- ***Governance—***

- The legal framework should clarify the authority to borrow and to issue new debt, to hold assets for cash management purposes, and, if applicable, to undertake other transactions on the government's behalf.
- The organizational framework for debt management should be clearly specified and the mandates and roles well articulated.

Institutional Framework

- *Management of internal operations and legal documentation*

- Operational risks should be managed according to sound business practices, including well articulated responsibilities for staff, and clear monitoring and control policies and reporting arrangements.
- Staff involved in debt management should be subject to a code-of-conduct and conflict-of-interest guidelines regarding the management of their personal financial affairs.
- Debt management activities should be supported by an accurate and comprehensive management information system with proper safeguards.
- Sound business recovery procedures should be in place to mitigate the risk that debt management activities might be severely disrupted by theft, fire, natural disasters, social unrest, or acts of terrorism.
- Debt managers should ensure that they have received appropriate legal advice and that the transactions they undertake incorporate sound legal features.
- Collective action clauses (CACs) in bond contracts could help to achieve a more orderly and efficient resolution, in case of a sovereign debt restructuring

Debt Management Strategy

- The risks inherent in the government's debt structure should be carefully monitored and evaluated. These risks should be mitigated to the extent feasible, taking into account the cost of doing so.
- In order to help guide borrowing decisions and reduce the government's risk, debt managers should consider the financial and other risk characteristics of the government's cash flows.
- Debt managers should carefully assess and manage the risks associated with foreign currency, short-term, and floating rate debt.
- There should be cost-effective cash management policies in place to enable the authorities to meet their financial and budgetary obligations as they fall due.

Risk Management Framework

- A framework should be developed to enable debt managers to identify and manage the tradeoffs between expected cost and risk in the government debt portfolio.
- To assess risk, debt managers should regularly conduct stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government and the country more generally are potentially exposed.

Risk Management Framework

- **Scope for active management**

Debt managers who seek to manage actively the debt portfolio to profit from expectations of movements in interest rates and exchange rates, which differ from those implicit in current market prices, should be aware of the risks involved and be accountable for their actions.

Risk Management Framework

- **Risk arising from the use of derivatives, credit risk, and settlement risk**

When derivatives are used to manage debt portfolio risk positions, debt managers should be aware of the financial cost and redemption scenarios that could arise, as well as of the potential consequences of derivatives contracts (e.g., in case of a downgrade of a market counterparty).

Credit risk should be assessed and managed consistently by debt and cash managers.

Settlement risk should be controlled by having clearly documented settlement procedures and responsibilities and by placing limits, if appropriate, on the size of payments flowing through any one settlement bank.

Risk Management Framework

- **Contingent liabilities**

Debt managers should ensure that the impact of risks associated with contingent liabilities on the government's financial position, including its overall liquidity, is taken into consideration when designing debt management strategies

Development and Maintenance of an Efficient Market for Domestic Government Securities

- ***Portfolio diversification and instruments***

The government should strive to achieve a broad investor base for its domestic and foreign debt instruments, with due regard to cost and risk, and should treat investors equitably.

- ***Primary market***

Debt management operations in the primary market should be transparent and predictable. To the extent possible, debt issuance should use market-based mechanisms, including competitive auctions and syndications.

- ***Secondary market***

Governments and central banks should promote the development of resilient secondary markets that can function effectively under a wide range of market conditions.

The systems used to settle and clear financial market transactions involving government securities should reflect sound practices.



The End
Thank you

Discussion and Q&A

References

- Barro, Robert J. "Notes On Optimal Debt Management," *Journal of Applied Economics*, 1999, v2(2,Nov), 282-290.
- Bohn, H., 1990 "A Positive Theory of Foreign Currency Debt," *Journal of International Economics*. 29, pp.273-292.
- Calvo, G., 1988 "Servicing the Public Debt: The Role of Expectations," *American Economic Review*, 78, September, pp.647-671.
- Greenwood, Robin, Samuel G. Hanson, and Jeremy C. Stein. "A Comparative-Advantage Approach to Government Debt Maturity." *Journal of Finance*, 2015.
- IMF. 2014. Revised Guidelines for Public Debt Management. IMF policy paper, April. Available at <http://www.imf.org/external/pp/ppindex.aspx>
- Missale, A., 1997. "Managing the Public Debt: The Optimal Taxation Approach," *Journal of Economic Surveys*. 11 (3):235-265.