



IMF POLICY PAPER

April 1, 2014

REVISED GUIDELINES FOR PUBLIC DEBT MANAGEMENT

IMF staff regularly produces papers proposing new IMF policies, exploring options for reform, or reviewing existing IMF policies and operations. The following document has been released and is included in this package:

- The **Staff Report** on the Revised Guidelines for Public Debt Management, prepared by IMF and World Bank staffs and completed on March 26, 2014, to brief the Executive Board on April 1, 2014.

The staff report was issued to the Executive Board for information.

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International Monetary Fund
Washington, D.C.



Revised Guidelines for Public Debt Management



Prepared by the Staffs of the International Monetary Fund and the World Bank

March 2014

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PREFACE

The Guidelines for Public Debt Management (*Guidelines*) have been developed as part of a broader work program undertaken by the IMF and the World Bank to strengthen the international financial architecture, promote policies and practices that contribute to financial stability and transparency, and reduce countries' external vulnerabilities.

In developing the *Guidelines*, IMF and World Bank staffs worked in close collaboration with debt management entities from a broad group of IMF-World Bank member countries and international institutions in a comprehensive outreach process. The debt managers' insights, which this process brought to the *Guidelines*, have enabled the enunciation of broadly applicable principles, as well as institutional and operational foundations, that have relevance for members with a wide range of institutional structures and at different stages of development.

The revision of the *Guidelines* was requested by the G-20 Finance Ministers and Central Bank Governors, at their meeting in Moscow, on February 15–16, 2013. In particular, they asked the IMF and World Bank to take stock of the existing *Guidelines* with a view to ensuring that they remain relevant and topical. Since their adoption in 2001, and amendments in 2003, financial sector regulatory changes and macroeconomic policy developments, especially in response to the recent financial crisis, have significantly affected the general financial landscape. This has been manifested by a greater volume of public debt issuances, unprecedented cross border capital flows in search of higher yields, and higher volatility of investor risk appetite. As a consequence, many countries have experienced significant shifts in their debt portfolios, in terms of both size and composition. Such changes have brought to the forefront a number of issues in the management of public debt that required consideration in reviewing the *Guidelines*.

The main revisions reflect (i) greater clarity on the roles and accountabilities of debt managers and their responsibility for providing pertinent information to fiscal authorities on the amount of debt that can realistically be absorbed by the market; (ii) enhanced communication with investors, which was considered essential especially during periods of crisis, with pertinent information on debt composition and related risk indicators being periodically provided to minimize uncertainty; (iii) the use of collective action clauses (CACs) in bond contracts for the efficient resolution of sovereign debt restructurings; (iv) a more detailed consideration of risk mitigation strategies, particularly liquidity and refinancing risk, and of contingency plans, including the building of cash buffers; (v) greater emphasis on the use of stress testing, the importance of managing counterparty risk when derivatives are used, and the need to better manage and monitor the risks arising from contingent liabilities; and (vi) the need to enhance the liquidity of the domestic bond market, while impediments that inhibit the development of domestic government bond markets, such as limited diversification of the investor base, should be promptly identified and addressed, as well as the need to consider flexibility in issuance programs, especially in times of crisis.

Accordingly, the 2001 *Guidelines*, along with their 2003 Amendments, have been reviewed to reflect evolving developments since their introduction. The 2014 update of the *Guidelines* was prepared by Luc Everaert, Michael Papaioannou, and Eriko Togo of the IMF and by Phillip Anderson, Sudarshan Gooptu, Abha Prasad, and Rodrigo Cabral of the World Bank. Valuable inputs and suggestions for revising the *Guidelines* were provided by a working group of public debt managers, chaired by Lars Hörngren, Chief Economist, Swedish National Debt Office, and by the Organisation of Economic Co-operation and Development (OECD). The working group comprised representatives from Argentina, Bangladesh, Belgium, Brazil, the Comoros, Denmark, the Gambia, Germany, India, Italy, Jamaica, Korea, the People's Republic of China, Russia, Sierra Leone, Spain, Sudan, Sweden, Turkey, the United States, Uruguay, and Vietnam. Also, Thordur Jonasson, Guilherme Pedras, and Emily Simmons of the IMF and Anderson Caputo Silva and Indhu Raghvan of the World Bank provided invaluable comments and support. Two broad consultative meetings on the review were held in Washington, D.C. on June 19 and October 15, 2013.

The IMF and World Bank staffs greatly appreciate the efforts of all who contributed to the successful completion of this project.

PURPOSE OF THE GUIDELINES

1. **The *Guidelines* are designed to assist policymakers in considering reforms to strengthen the quality of their public debt management and reduce their country's vulnerability to domestic and external shocks, irrespective of whether they are structural or financial in nature.** Vulnerability is often greater for smaller and emerging market countries because their economies may be less diversified, have a smaller base of domestic financial savings and less developed financial systems, and may be more susceptible to financial contagion through capital flows. Nevertheless, events since the global financial crisis in the late 2000s demonstrate that larger and developed economies are vulnerable too. The *Guidelines* should therefore be considered within the broader context of the factors and forces affecting a government's financial position more generally, and the management of its balance sheet. Governments often manage large foreign exchange reserves portfolios, their fiscal positions are frequently subject to real and monetary shocks, and they can have large exposures to contingent liabilities and to the consequences of poor balance sheet management in the private sector. However, irrespective of whether financial shocks originate within the domestic banking sector or from global financial contagion, prudent government debt management policies, along with sound macroeconomic and regulatory policies, are essential for containing the welfare and output costs associated with such shocks.

2. **The *Guidelines* cover both domestic and external public debt, and can encompass a broad range of financial claims on the government.**¹ They seek to identify areas in which there is broad agreement on what generally constitutes sound practices in public debt management. The *Guidelines* endeavor to focus on principles applicable to a broad range of countries at different stages of development and with various institutional structures of national debt management. They should not be viewed as a set of binding practices or mandatory standards or codes. Nor should they suggest the existence of a unique set of sound practices or prescriptions that would apply to all countries in all situations. Building capacity in public debt management can take several years and country situations and needs vary widely.² These *Guidelines* are mainly intended to assist policymakers by disseminating sound practices adopted by member countries in the design of a debt management strategy, its implementation, and operations. Their implementation will vary from country to country, depending on each country's circumstances, such as its state of financial development.

3. **The *Guidelines* should assist policy advisors and decision makers involved in designing debt management reforms and raise public policy issues that are relevant for all countries.** Each country's capacity building needs in public debt management are different. Their needs are shaped by the capital market constraints they face, including the exchange rate regime, the quality of their macroeconomic and regulatory policies, the institutional capacity to design and

¹ For a definition of debt, see for example, *What Lies Beneath: The Statistical Definition of Public Debt*, <http://www.imf.org/external/pubs/cat/longres.aspx?sk=26101>

² The Debt Management Performance Assessment (DeMPA) tool was developed to assist countries in identifying the priority areas for improvement, with a particular focus on developing countries. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTDEBTDEPT/0,,contentMDK:21707750~menuPK:64166739~pagePK:64166689~piPK:64166646~theSitePK:469043,00.html>.

implement reforms, the country's credit standing, etc. Capacity building and technical assistance therefore must be carefully tailored to meet policy goals, taking into account country characteristics. The *Guidelines* should also recognize the policy settings, institutional framework, technology, and human and financial resources that are available. This is the case whether the public debt comprises marketable debt or debt from bilateral or multilateral official sources, although the specific measures to be taken may differ.

WHAT IS PUBLIC DEBT MANAGEMENT AND WHY IS IT IMPORTANT?

4. **Public 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.** It should also meet any other public debt management goals the government may have set, such as developing and maintaining an efficient market for government securities.

5. **In a broader macroeconomic context for public policy, governments 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.** While the responsibility for compliance with debt ceilings and for conducting debt sustainability analysis (DSA) lies with the fiscal authorities, public debt managers should share fiscal and monetary policy authorities' concerns that public sector indebtedness remains on a sustainable path. Debt managers should ensure that the fiscal authorities are aware of the impact of government's financing requirements and debt levels on borrowing costs. Examples of indicators that address the issue of debt sustainability include the public sector debt service ratio, and ratios of public debt to GDP, exports, and tax revenue. Such indicators should be evaluated considering a wide range of scenarios.

6. **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.** On many of these issues, there is increasing convergence on what are considered prudent public debt management practices that can also reduce vulnerability to contagion and financial shocks. These include recognition of the benefits of clear objectives for debt management; weighing risks against cost considerations; the separation of debt and monetary management objectives and accountabilities (where appropriate, combined with consultation and information sharing between the debt manager and the central bank); the need to carefully manage refinancing and market risks and the interest costs of debt burdens; and 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.

7. **Poorly 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.³ For example, irrespective of the exchange rate regime, or whether domestic or foreign currency debt is involved, crises have often arisen because of an excessive focus by governments on possible cost savings associated with short-term or floating rate debt. Issuance of large volumes of such debt instruments has left government budgets seriously exposed to changing growth and financial market conditions, including changes in the country's creditworthiness, when this debt has to be refinanced. Excessive reliance on foreign currency debt poses particular risks as it can lead to exchange rate and/or monetary pressures if investors become reluctant to refinance the government's debt. By reducing the risk that the government's own debt portfolio will become a source of instability for the private sector, prudent government debt management, along with sound policies for managing contingent liabilities, can make countries less susceptible to contagion and financial risk. Further, a debt portfolio that is robust to shocks places the government in a better position to effectively manage financial crises.

8. **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.** Sound risk management by the public sector is also essential for risk management by the private sector. Sound debt structures help governments reduce their exposure to interest rate, currency, refinancing, and other risks. Many governments seek to support these structures by establishing targets and ranges for key risk indicators or, where feasible, target portfolios related to the desired currency composition, duration, and maturity structure of the debt to guide borrowing activities and other debt transactions. When made public, such targets help to increase the predictability and transparency of debt management operations, and in turn reduce uncertainty for investors.

9. **Debt crises have highlighted the importance of sound debt management practices and the need for an efficient and liquid domestic capital market.** Although government debt management policies may not have been the sole or even the main cause of such crises, the maturity structure, and interest rate and currency composition of the government's debt portfolio, together with substantial obligations in respect of explicit and implicit contingent liabilities— not least in relation to the financial sector—have contributed to the severity of the crises. Even in situations where there are sound macroeconomic policy settings, risky debt management practices increase the vulnerability of the economy to economic and financial shocks. Sometimes these risks can be readily addressed by relatively straightforward measures, such as by lengthening the maturities of borrowings and paying any associated debt servicing costs, or by adjusting the amount, maturity, and composition of foreign exchange reserves. It is also important for governments to review criteria and governance arrangements in respect of contingent liabilities to ensure that these are consistent with transparent and sound fiscal and budget management principles.

³ For the purpose of this document, contingent liability refers to explicit contingent liabilities unless stated otherwise.

THE PUBLIC DEBT MANAGEMENT GUIDELINES

1. Debt Management Objectives and Coordination

1.1 Objectives

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.

1.2 Scope

Debt management should encompass the main financial obligations over which the central government exercises control.

1.3 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.

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.

2. Transparency and Accountability

2.1 Clarity of roles, responsibilities, and objectives of government institutions responsible for debt management

The allocation of responsibilities among the ministry of finance, the central bank, or a separate debt management agency, for debt management policy advice and for undertaking primary debt issues, secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities should be publicly disclosed.

The objectives for debt management should be clearly defined and publicly disclosed, and the measures of cost and risk that are adopted should be explained.

2.2 Public availability of information on the reporting of debt management strategies and operations

Materially important aspects of debt management operations should be publicly disclosed.

Easy public access to the documentation describing the legal basis for debt management policy and operations should be ensured.

The legislature and the public should be informed, through an annual report, on the context in which debt management operates and on the outcomes of the debt management strategy.

The debt manager/government should regularly publish information on the outstanding stock and composition of its debt liabilities and financial assets, and, where they exist, contingent liabilities, including their currency denomination, maturity, and interest rate structure.

If debt management operations include derivatives, the rationale for their use should be disclosed, and aggregate statistics on the derivatives portfolio should be published periodically, conforming to recognized accounting practices. The government is likely to benefit from a function within the debt management office that deals regularly with the main debt stakeholders and produces investor-friendly reports with debt statistics and other relevant information.

2.3 Accountability and assurances of integrity by agencies responsible for debt management

Debt management activities should be audited annually by external auditors. Information technology (IT) systems and risk control procedures should also be subject to external audits. In addition, there should be regular internal audits of debt management activities, and of systems and control procedures.

3. Institutional Framework

3.1 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.

3.2 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 (see also Box 2).

4. 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.

5. Risk Management Framework

A framework should be developed to enable debt managers to identify and manage the trade-offs 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.

5.1 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.

5.2 Risks 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.

5.3 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.

6. Development and Maintenance of an Efficient Market for Domestic Government Securities

In order to minimize cost and risk over the medium to long run, debt managers should take adequate measures to develop an efficient government securities market.

6.1 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.

6.2 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.

6.3 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.

DISCUSSION OF THE GUIDELINES

1. Debt Management Objectives and Coordination

1.1 Objectives

10. **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.** Prudent risk management to avoid risky debt structures and strategies (including monetary financing of the government's debt) is crucial, given the severe macroeconomic consequences of public debt default and the magnitude of the ensuing output losses. These costs include business and banking insolvencies as well as the diminished long-term credibility and capability of the government to mobilize domestic and foreign savings. Box 1 provides a list of the main risks encountered in public debt management.

11. **Governments should try to minimize expected debt servicing costs and the cost of holding liquid assets, subject to an acceptable level of risk, over a medium- to long-term horizon.** Minimizing cost, while ignoring risk, should not be an objective. Transactions that appear to lower debt servicing costs often embody significant risks for the government and can limit its capacity to repay lenders. Managing cost and risk therefore involves a trade-off. Judgments will have to be made based on the risk tolerance of the government, keeping in view other policy objectives and policy buffers. Developed countries, which typically have deep and liquid markets for their government's securities, often focus primarily on market risk, and, together with stress tests, may use sophisticated portfolio models for quantifying and measuring this risk.⁴ In contrast, emerging market and low-income countries, which may have only limited (if any) access to foreign capital markets and which also may have relatively undeveloped domestic debt markets, should

⁴ Methodologies for measuring and quantifying risk is discussed in IMF-World Bank (2009) "Developing a Medium-Term Debt Management Strategy (MTDS)—Guidance Note for Country Authorities," <http://www.imf.org/external/np/pp/eng/2009/030309a.pdf>, <http://go.worldbank.org/T7SB6VFEL0>

give higher priority to refinancing risk. Where appropriate, policies to promote the development of the domestic debt market should also be included as a prominent government objective.⁵ This objective is particularly relevant for countries where market constraints are such that short-term debt, floating rate debt, and foreign currency debt may, in the short run at least, be the only viable alternatives to monetary financing.

1.2 Scope

12. **Debt management should encompass the main financial obligations over which the central government exercises control.** These obligations typically include both marketable and non-marketable debt, such as concessional financing obtained from bilateral and multilateral official sources and retail debt in some cases. Whether the broader public sector debt is included or excluded from the central government’s mandate over debt management will vary from country to country, depending on the nature of the political and institutional frameworks.⁶

Box 1. Risks Encountered in Public Debt Management

The main risks faced by public debt portfolios relate to market risk, which includes interest rate risk and exchange rate risk, refinancing risk, liquidity risk, credit risk, and operational risk. The risk exposures of a public debt portfolio are determined by the composition of the debt portfolio, including the share of short-term debt versus longer-term debt in the portfolio, the variable interest rate debt relative to fixed rate debt, and debt denominated in foreign currency.

Risk	Description
Market Risk	Refers to the risk of increases in the cost of the debt arising from changes in market variables, such as interest rates and exchange rates. The most common types of market risk are the interest rate risk and exchange rate risk.
Interest Rate Risk 1/	Refers to the risk of increases in the cost of the debt arising from changes in interest rates. For both domestic and foreign currency debt, changes in interest rates affect debt servicing costs on new issues when fixed rate debt is refinanced, and on existing and new floating rate debt at the rate reset dates. Hence, short-term or floating rate debt is usually considered to be more risky than long-term, fixed rate debt. Traditional measures of interest rate risk include duration, average time to refixing, and the share of floating rate debt to total debt.
Exchange Rate Risk	Refers to the risk of increases in the cost of the debt arising from changes in exchange rates. Debt denominated in or indexed to foreign currencies adds volatility to debt servicing costs as measured in domestic currency owing to exchange rate movements. Measures of exchange rate risk include the share of domestic currency debt in total debt, and the ratio of short term external debt to international reserves.
Refinancing Risk 2/	Refers to the risk that debt will have to be refinanced at an unusually high cost or, in extreme cases, cannot be refinanced at all. To the extent that refinancing risk is limited to the risk that debt might have to be financed at higher interest rates, including changes in credit spreads, it may be considered a type of interest rate risk. However, it is often treated separately because the inability to refinance maturing debt and/or exceptionally large increases in government funding costs can lead to or exacerbate a debt crisis. Further, bonds with embedded put options can exacerbate refinancing risk. Relevant indicators include average time to maturity, percentage of

⁵ See for example, IMF and World Bank (2001), *Developing Government Bond Markets: A Handbook*.

⁶ These *Guidelines* may also offer useful insights for other levels of government with debt management responsibilities.

	debt outstanding in 12, 24, and 36 months, and the redemption profile.
Liquidity Risk	Refers (in the context of debt management) to a situation where the volume of liquid assets diminishes quickly as a result of unanticipated cash flow obligations and/or a possible difficulty in raising cash through borrowing in a short period of time.
Credit Risk	Refers to the risk of non-performance by borrowers on loans or other financial assets, or by a counterparty on financial contracts. This risk is particularly relevant in cases where debt management includes the management of liquid assets. It may also be relevant in the acceptance of bids in auctions of securities issued by the government as well as in relation to credit guarantees, and in derivative contracts entered into by the debt manager.
Settlement Risk	Refers to the risk that a counterparty does not deliver a security as agreed in a contract, after the country (other counterparty) has already made the payment according to the agreement.
Finally, debt managers face operational risk in the conduct of their business, which should be managed through governance and control functions.	
Operational Risk	Refers to a range of different types of risks, including transaction errors in the various stages of executing and recording transactions; inadequacies or failures in internal controls, or in systems and services; reputation risk; legal risk; security breaches; or natural disasters that affect the debt manager's ability to pursue activities required to meet debt management objectives.
1/ Refixing risk is another term used for interest rate risk.	
2/ Rollover risk is another term used for refinancing risk.	

13. The central government should monitor and review the potential exposures that may arise from guaranteeing the debts of sub-central governments and SOEs, and, whenever possible, be aware of the overall financial position of public- and private-sector borrowers.

Also, the borrowing calendars of the central and sub-central government borrowers may need to be coordinated to ensure that auctions of new issues are appropriately spaced. Debt management may also encompass the oversight of liquid financial assets.

1.3 Coordination with monetary, fiscal and financial sector policies

14. 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. Public debt management problems often find their origins in the lack of attention paid by policymakers to the costs of weak macroeconomic management. Inappropriate fiscal, monetary, exchange rate, or financial policies generate uncertainty in financial markets regarding the future returns available on local currency-denominated investments, thereby inducing investors to demand higher risk premia. Borrowers and lenders alike may refrain from entering into longer-term commitments, which can severely hinder debt managers' efforts to protect the government from excessive refinancing and foreign exchange risk. A good track record of implementing sound macro policies can help to avoid or alleviate this uncertainty. In addition, authorities should pay attention to the benefits of having prudent debt management policies that are coordinated with sound macroeconomic policies. This should be combined with building appropriate technical

infrastructure—such as a central registry and payments and settlement system—to facilitate the development of domestic financial markets.

15. **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.** Policymakers should understand the ways in which the different policy instruments operate, their potential to reinforce one another, and how policy tensions can arise. Prudent debt management, fiscal, and monetary policies can reinforce one another in helping to lower the risk premia in the structure of long-term interest rates. Monetary authorities should inform the fiscal authorities of the potential effects of government debt levels on achieving monetary policy objectives. Borrowing limits and sound risk management practices can help to protect the government's balance sheet from debt servicing shocks. It is important that policies in all areas are conducted in the context of a sound macroeconomic framework.

16. **In principle, there should be a separation of debt management policy and monetary policy objectives and accountabilities.** Separation between the roles and objectives for debt management and monetary policies minimizes potential conflicts. In countries with well-developed financial markets, borrowing programs are based on the economic and fiscal projections contained in the government budget, and monetary policy can be carried out independently from debt management policy. This helps ensure that debt management decisions are not perceived to be influenced by inside information on interest rate decisions, and avoids perceptions of conflicts of interest in market operations. A goal of cost minimization over time for the government's debt, subject to a prudent level of risk, should not be viewed as a mandate to reduce policy interest rates or to otherwise influence domestic monetary conditions. Neither should the cost/risk objective be seen as a justification for the extension of low-cost central bank credit to the government, nor should monetary policy decisions be driven by debt management policy considerations.

17. **Debt managers and fiscal and monetary authorities should share information on the government's current and future cash flow needs.** Since monetary operations are often conducted using government debt instruments and markets, the choice of monetary instruments and operating procedures can have an impact on the functioning of government debt markets, and potentially on the financial condition of dealers in these markets. By the same token, the efficient conduct of monetary policy requires a good understanding of the government's short- and longer-term financial flows. As a result, debt management, fiscal, and monetary authorities should have procedures enabling them, where appropriate, to meet and coordinate on a wide range of policy issues. At the operational level, debt management, fiscal, and monetary authorities generally share information on the government's current and future cash flow needs. They often coordinate their market operations so as to ensure that they are not both operating in the same market segment at the same time. Also, when cash management is not conducted by debt managers, strong coordination is needed with the institution in charge of cash management.

18. **Communication among debt management, monetary, fiscal, and financial sector regulatory authorities should be promoted, with each authority retaining its independence**

and accountabilities. Some forms of consultation, where applicable, might be helpful because they may provide policymakers, including financial regulators, with valuable input. In particular, information sharing among debt managers and monetary authorities is crucial when monetary policy includes so-called non-standard measures, some of which are carried out directly in government bond markets.⁷ In regulating and supervising financial markets and institutions, it may happen that certain measures may unintentionally hamper the functioning of the primary and secondary markets. Consultations between debt management, monetary, fiscal, and financial regulatory authorities promote solutions that facilitate proper functioning of public debt markets while also meeting financial policy objectives.

19. **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.**⁸ Debt managers' analysis of the cost and risk of the debt portfolio may contain useful information for fiscal authorities' own debt sustainability analysis (and vice versa), including vulnerabilities arising from exposures to exchange rate risk, interest rate risk and refinancing risk.^{9,10} In addition, debt managers play an important role in setting the composition of the debt through their borrowing activity in financial markets on behalf of the government, which places them in direct contact with market participants. Their observation of investor behavior in both primary and secondary markets, as well as their discussions with market participants, may provide useful insights into the willingness of investors to hold that debt. This window on investors' views can be a useful input into fiscal authorities' assessments of debt sustainability and may help policymakers identify any emerging debt sustainability concerns. Thus, debt managers should extract relevant indicators from their debt portfolios, and gather and analyze financial market participants' views on the sustainability of the government's debt in a systematic fashion. They should also have the appropriate communication channels in place so that they can share this information with fiscal authorities on a timely basis.

⁷ Efficient communication between the *central* monetary authority and the respective member country's debt managers is critical in monetary unions.

⁸ Debt managers should provide the fiscal authority with an assessment and forecast on the amount of debt that can realistically be absorbed by the market without a substantial increase in interest rates or in risks. This amount also depends on the specific risk features underlying the debt: indeed investors may have regulatory and operational limits in holding this debt because of its risk as measured by the rating level or other risk criteria. If these aspects are not taken into account, an imbalance between supply and demand may arise resulting in an increase in the cost of debt, with negative impact on debt sustainability.

⁹ Various analytic frameworks have been developed to guide countries on the sustainability of their public debt. For example, those used by the IMF in its surveillance and program activities and by the Bank in its lending operations can be found on its website: <http://www.imf.org/external/pp/longres.aspx?id=4827>; <http://www.imf.org/external/np/pp/eng/2013/050913.pdf>; <http://www.imf.org/external/pubs/ft/dsa/lic.aspx>; and <http://go.worldbank.org/VW1LCJFDJ0>.

¹⁰ Further information on the analysis of the cost and risk of the debt portfolio can be found in Sections 4 and 5 of the *Guidelines*, which deal with debt management strategy and the risk management framework.

2. Transparency and Accountability¹¹

20. **Transparency and accountability are key factors in debt management operations.** As outlined in the *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles* (MFP Transparency Code), the case for transparency in debt management operations is based on two main premises: first, their effectiveness can be strengthened if the goals and instruments of policy are known to the public and if the authorities can make a credible commitment to meeting them; second, transparency can enhance good governance through greater accountability of finance ministries, debt management offices, central banks, and other public institutions involved in debt management operations.

2.1 Clarity of roles, responsibilities and objectives of government institutions responsible for debt management

21. **The allocation of responsibilities among the ministry of finance, the central bank, or a separate debt management agency, for debt management policy advice and for undertaking primary debt issues, secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities, should be publicly disclosed.**¹² Transparency in the mandates and clear rules and procedures, including agency agreements, where necessary, can help resolve conflicts between monetary and debt management policies and operations. Transparency and simplicity in debt management operations and in the design of debt instruments can also help issuers reduce transaction costs and meet their portfolio objectives. They may also reduce uncertainty among investors, lower transaction costs, encourage greater investor participation, and over time help governments lower their debt servicing costs.

22. **The objectives for debt management should be clearly defined and publicly disclosed, and the measures of cost and risk that are adopted should be explained.**¹³ Experience suggests that such disclosure enhances the credibility of the debt management program and helps achieve debt management goals. Complementary objectives, such as domestic financial market development or maintaining a well-functioning market, should also be publicly disclosed. Their relationship with the primary objective should be clearly explained.

23. **Clear debt management objectives are essential in order to reduce uncertainty as to the government's plans and future behavior.** Unclear objectives and policy framework often lead to poor decisions on how to manage the existing debt and what types of debt to issue, particularly during times of market instability, resulting in a potentially risky and expensive debt portfolio for the government and adding to its vulnerability in a crisis. Lack of clarity with respect to objectives also creates uncertainty within the financial community. This can increase government debt servicing costs, because investors incur costs in attempting to monitor and

¹¹ This section draws upon the aspects of the *Code of Good Practices on Fiscal Transparency* (2007, henceforth FT Code), and the *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles* that pertain to debt management operations.

¹² See MFP Transparency Code, 1.2, 1.3, and 5.2.

¹³ See MFP Transparency Code, 1.3 and 5.1.

interpret the government's objectives and policy framework, and may require higher risk premia because of this uncertainty.

2.2 Public availability of information on the reporting of debt management strategies and operations

24. **Materially important aspects of debt management operations should be publicly disclosed.** The *Code of Good Practices on Fiscal Transparency—Declaration on Principles* highlights the importance and need for a clear legal and administrative framework for debt management, including mechanisms for the coordination and management of budgetary and extra-budgetary activities.

25. **Regulations and procedures for the primary issuance of government securities, including the auction format and rules for participation, bidding, and allocation should be clear to all participants.**¹⁴ Rules covering the licensing of primary dealers (if engaged) and other officially designated intermediaries in government securities, including the criteria for their selection and their rights and obligations, should also be publicly disclosed.¹⁵ Regulations and procedures covering secondary market operations in government securities should be publicly disclosed, including any intervention undertaken by the central bank as agent for the government's debt management operations.¹⁶

26. **Easy public access to the documentation describing the legal basis for debt management policy and operations should be ensured.** The documentation made publicly available should include standard terms and conditions of outstanding bonds as well as of other debt instruments employed, including, if applicable, collective action clauses. It is also important that the tax treatment of public securities be clearly disclosed when they are first issued. The objectives and fiscal costs of preferential tax treatment, if any, for government securities should also be disclosed.¹⁷

27. **The legislature and the public should be informed through an annual report on the context in which debt management operates and on the outcomes of the debt management strategy.** A description of the medium-term debt management strategy, with cost and risk indicators or targets, is particularly valuable to investors and other stakeholders. To guarantee transparency, accountability and efficient communication with investors and other stakeholders, the government should present periodic results in light of the stated strategies and targets. This improves governance and allows the public to better understand and evaluate debt managers' performance.

¹⁴ See IMF and World Bank (2001) *Developing Government Bond Markets: A Handbook*, <http://www.imf.org/external/pubs/cat/longres.cfm?sk=15114.0>

¹⁵ See MFP Transparency Code, 6.1.3.

¹⁶ See MFP Transparency Code, 1.3.

¹⁷ See IMF and World Bank (2001) *Developing Government Bond Markets: A Handbook*, <http://www.imf.org/external/pubs/cat/longres.cfm?sk=15114.0>

28. **The debt manager/government should regularly (monthly or quarterly) publish information on the outstanding stock and composition of its debt liabilities and financial assets, and, where they exist, loan guarantees and other contingent liabilities, including their currency denomination, maturity, and interest rate structure.**¹⁸ Some public debt managers also regularly publish (monthly or quarterly) a report with statistics on domestic and external debt and loan guarantees, such as issuances/ disbursements and debt service payments, and other basic risk indicators such as average residual maturity, average cost, debt due in one year or less, and debt stock by type of investors/creditors.
29. **Debt managers should promote a close and continuing dialogue with investors in an effort to keep them informed of the country's debt portfolio characteristics and to obtain information about investors' preferences.** Debt managers should endeavor to provide information to investors on borrowing operations, methods for the calculation of public debt figures, measures for interest rate risk and refinancing risk, maturity structure, derivatives, and explicit guarantees, as needed.
30. **Where contingent liabilities exist (for example, through explicit deposit insurance schemes sponsored by the government or explicit credit guarantees issued by the central government), information on their cost and risk aspects should be disclosed in the public accounts.**¹⁹ The accounts should also indicate whether these liabilities are published at face value or after a separate appraisal; if the latter, valuation standards and methods to calculate contingent liabilities should be made public. This information should be published by the debt managers if they are the authority responsible for the management of contingent liabilities.
31. **If debt management operations include derivatives, the rationale for their use should be disclosed, and aggregate statistics and/or synthetic indicators on the derivative portfolio should be published periodically, conforming to recognized accounting practices.** For some debt managers, derivatives operations play an integral role in debt management. Accounting for these derivatives operations is crucial for strengthening confidence in the soundness of the government's financial position, since their risk characteristics and cost structures can be quite different from those of standard debt instruments. Key risk, cost and valuation metrics of the derivative portfolio should be formulated according to recognized accounting practices and made public on a regular basis.
32. **The government is likely to benefit from a function within the debt management office that deals regularly with the main debt stakeholders and produces investor-friendly reports with debt statistics and other relevant information.** Several debt managers have an investor relations office as the first point of reference for investors, rating agencies, press and

¹⁸ See *Manual of Fiscal Transparency*, paragraph 207; *IMF Data Quality Assessment Framework*; *Public Sector Debt Statistics Guide*; and *External Debt Statistics Guide for Compilers and Users* (2003).
<https://www.imf.org/external/np/sta/ed/ed.htm>.

¹⁹ The disclosure of contingent liabilities is discussed further in Section 5.2.

other stakeholders.²⁰ Such a unit is also responsible for the quality of the webpage and documents regularly released by the debt manager.

33. **Transparency and sound policies can be seen as complementary.** The *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles* recognizes, however, that certain circumstances may exist to make it appropriate to limit the extent of such transparency.²¹ For example, a government may not wish to publicize its pricing strategy prior to debt buyback operations in order to avoid having prices move against it. However, in general, such limitations would be expected to apply on relatively few occasions with respect to debt management operations.

2.3 Accountability and assurances of integrity by agencies responsible for debt management

34. **Debt management activities should be audited annually by external auditors.** Information technology (IT) systems and risk control procedures should also be subject to external audits. The accountability framework for debt management can be strengthened by public disclosure of audit reviews of debt management policies, operations, IT systems, and risk control procedures.²² External audits of government financial statements should be conducted regularly and publicly disclosed on a preannounced schedule.²³ A national audit body, like the agency responsible for auditing government operations, should provide timely reports on the financial integrity of the central government accounts. In addition, there should be regular internal audits of debt management activities, and of systems and control procedures.

3. Institutional Framework

3.1 Governance

35. **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 authority to borrow should be clearly defined in legislation.²⁴ Sound governance practices are an important component of public debt management, given the size of public debt portfolios.

36. **The soundness and credibility of the financial system can be supported by assurances that the public debt portfolio is being managed prudently and efficiently.** Moreover,

²⁰ See the IIF Report on Investor Relations: An Approach to Effective Communication and Enhanced Transparency (April 2008).

²¹ See MFP Transparency Code, Introduction.

²² See MFP Transparency Code, 1.2, 1.3, and Sections IV and VIII.

²³ The audit process may differ depending on the institutional structure of debt management operations.

²⁴ This authority is usually assigned to the minister of finance. See also IMF (2007) *Manual on Fiscal Transparency*, paragraph 103.

counterparties need assurances that the debt managers have the legal authority to represent the government, and that the government stands behind any transactions its public debt managers enter into. An important feature of the legal framework is the authority to issue new debt, which is often stipulated in the form of either borrowing authority legislation with a preset limit or a debt ceiling. The legal framework should also address the process for using derivatives and liability management operations.

37. The organizational framework for debt management should be clearly specified and the mandates and roles well articulated.²⁵ Legal arrangements should be supported by delegation of appropriate authority to debt managers. Experience suggests that there is a range of institutional alternatives for locating the public debt management functions, including in one or more of the following: the ministry of finance, the central bank, or an autonomous debt management agency.²⁶ Regardless of which approach is chosen, consolidation of debt management functions in the same authority could enhance efficiency in debt management operations. The key requirement is to ensure that the organizational framework surrounding debt management is clearly specified and that the mandates of the respective players are clear, so as to enable debt managers to have the operational independence to execute their objectives and strategies.²⁷

38. Debt managers should regularly release the government’s objectives, guidelines, and strategies, as well as medium-term financing needs and, where applicable, targets, in terms of debt composition, average maturity, and other indicators.²⁸ To complement its transparency and accountability, debt managers usually release annual debt reports, which review the previous year’s activities.²⁹ Such reports not only increase the accountability of the government debt managers, but also assist financial markets by disclosing the criteria used to guide the debt program, the assumptions and trade-offs underlying these criteria, and the managers’ performance in meeting them.

3.2 Management of internal operations and legal documentation

39. 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. Strong controls and well-documented procedures should exist for the settlement of transactions, maintenance of the financial records, and access to the debt

²⁵ See also Section 2.1 of the *Guidelines*, and MFP Transparency Code, 5.2.

²⁶ A few countries have privatized elements of debt management within clearly defined limits including, for example, some back-office functions and the management of the foreign currency debt stock. For an extensive discussion on institutional arrangements for public debt management, see for example, Currie, Elizabeth; Jean-Jaques Dethier; and Eriko Togo, 2003, “Institutional Arrangement for Public Debt Management.” [http://treasury.worldbank.org/bdm/pdf/6 Institutional Arrangements PDM CurrieDethierTogo.pdf](http://treasury.worldbank.org/bdm/pdf/6%20Institutional%20Arrangements%20PDM%20CurrieDethierTogo.pdf)

²⁷ If the central bank is charged with the primary responsibility for debt management, the clarity of, and separation between, debt management policy and monetary policy objectives especially needs to be maintained. See also Section IV. 1.3.

²⁸ See also Box 1.

²⁹ See also Transparency and Accountability, Section IV. 2.2.

recording system. Inadequate controls and policy breaches can entail large losses to the government and tarnish its reputation. Sound risk monitoring and control practices are essential to reduce operational risk.

40. **Responsibilities and accountabilities of each party involved in debt management activities should be clearly structured.** Operational responsibility for debt management activities is generally separated into front, middle, and back offices with distinct functions and accountabilities, and separate reporting lines. The front office is typically responsible for executing transactions in financial markets, including the management of auctions and other forms of borrowing, and all other funding operations. It is important to ensure that the individual executing a market transaction and the one responsible for entering the transaction into the accounting system are different people. The back office handles the settlement of transactions and the maintenance of the financial records. A separate middle, or risk management, office usually undertakes risk analysis and monitors and reports on portfolio-related risks, and assesses the performance of debt managers against any strategic targets/benchmarks. This separation helps to promote the independence of those setting and monitoring the risk management framework and assessing performance from those responsible for executing market transactions. Where debt management services are provided by the central bank (e.g., registry and auction services) on behalf of the public debt managers, the responsibilities and accountabilities of each party and agreement on service standards can be formalized through an agency agreement between the central bank and the responsible debt management entity.

41. **Staff retention and succession policies that provide incentives and career opportunities should be developed.** Public debt management requires staff with a combination of financial market skills (such as portfolio management and risk analysis) and public policy skills. Regardless of the institutional structure, the ability to attract and retain skilled debt management staff is crucial for mitigating operational risk. This can be a major challenge for many countries, especially where there is a high demand for such staff in the private sector, or an overall shortage of such skills. Investment in training can help alleviate these problems, but where large salary differentials persist between the public and private sector for such staff, debt managers often find it difficult to retain these skills.

42. **Staff involved in debt management should be subject to a code-of-conduct and conflict-of-interest rules regarding the management of their personal financial affairs.** This will help to allay concerns that staff's personal financial interests may undermine sound debt management practices.

43. **Debt management activities should be supported by an accurate and comprehensive management information system with proper safeguards.** Countries that are beginning the process of building capacity in public debt management need to give high priority to developing accurate debt recording and reporting systems. This is required not only for producing debt data and ensuring timely payment of debt service, but also for improving the quality of budgetary reporting and the transparency of government financial accounts. The management information system should capture all relevant cash flows and should be fully integrated with the government's accounting system. While such systems are essential for debt management and risk analysis, their

introduction often poses major challenges for debt managers in terms of expense and management time. Moreover, the costs and complexities of the system should be appropriate to the country's needs.

44. **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.** Given that government debt issuance is increasingly based on efficient and secure electronic book-entry systems, comprehensive business recovery procedures, including robust back-up systems and controls, are essential to ensure the continuing operation of public debt management, maintain the integrity of the ownership records, and to provide full confidence to debt holders on the safety of their investments.

45. **Debt managers should ensure that they have received appropriate legal advice and that the transactions they undertake incorporate sound legal features.** The relevant jurisdiction should be clearly identified. It is important for debt managers to receive appropriate legal advice and to ensure that the transactions they undertake are backed by sound legal documentation. In doing so, debt managers can help governments clarify their rights and obligations in the relevant jurisdictions. Several issues deserve particular attention, including: the design of important provisions of debt instruments, such as clearly defining events of default, especially if such events extend beyond payment defaults on the relevant obligations (e.g., cross-defaults and cross-accelerations); the breadth of a negative pledge clause; the implications of including *pari passu* clauses; and the scope of the waiver of sovereign immunity. Disclosure obligations in the relevant markets must be analyzed in detail because they can vary from one market to another.

46. **If a government is forced to restructure its public debt in a time of distress, CACs in bond contracts could help achieve a more orderly and efficient resolution (see also Box 2).** The design and incorporation of such clauses in the documentation of bonds issued under foreign law have received increasing attention in recent years. These clauses allow a qualified majority of bondholders to bind all bondholders within the same issue to the financial terms of a restructuring, and limit the ability of a minority of bondholders to disrupt the restructuring process by enforcing their claims after a default. In a sovereign debt restructuring process, there is a risk that a minority of holdout creditors could slow or disrupt an agreement that a qualified majority would be prepared to support. By mitigating this risk, CACs could contribute to more orderly and rapid public debt workouts. Given these potential benefits, debt managers should, when issuing international sovereign bonds (i.e., bonds issued or guaranteed by a government or a central bank and either governed by a law other than the law of the issuer, or subject to jurisdiction of a foreign court), consider including such clauses in new borrowings, in consultation with their financial and legal advisors.³⁰

³⁰ The IMF is committed to promoting the use of CACs in sovereign bonds governed by foreign laws, and monitors their use in its surveillance activities.

Box 2. Collective Action Clauses

Collective action clauses (CACs) define majority-voting procedures to alter the financial terms of the outstanding debt instruments and can limit the incentive or ability of individual creditors to initiate litigation against the debtor, in case of a sovereign debt restructuring. They may help to bring about a more orderly and prompt restructuring, which in turn could also help governments reduce the large macroeconomic costs that might ensue if they are unable to restructure unsustainable debts in an orderly and predictable fashion.

These clauses can be classified into two broad types: one type is the “*majority restructuring*” provisions, which allow a qualified majority of bondholders of an issuance to change the bond’s key financial terms (i.e., principal, interest, and maturity) and to bind in all other holders of that issuance, either before or after a default. Traditionally, English-style CACs required the calling of a bondholder meeting. A supermajority was reached if 75 percent of those represented at the meeting (in person or by proxy) voted in favor. However, for most recently issued bonds with CACs (including those bonds issued under New York law), voting does not require representation at a meeting. A supermajority is reached when a certain percentage of holders of total amounts outstanding agree (e.g., 75 percent of outstanding principal).

Another type of CAC, characterized by the “*majority enforcement*” provisions, is designed to limit the ability of a minority of bondholders to disrupt the restructuring process by enforcing their claims after a default but prior to a restructuring agreement. Two of these provisions can be found in bonds governed by English and New York law: (i) an affirmative vote of a minimum percentage of bondholders (typically representing 25 percent of outstanding principal) is required to accelerate their claims after a default, and (ii) a simple or qualified majority can reverse such an acceleration after the default on the originally scheduled payments has been cured. An even more effective type of majority enforcement provision can be found in trust deeds governed by English law (which is also possible for bonds issued in other jurisdictions) where the right to initiate legal proceedings on behalf of all bondholders is conferred upon a trustee (a representative of the committee of bondholders). The trustee is only required to act if requested to do so by the requisite percentage of bondholders (typically 20–25 percent). In addition, the terms of the trust deed ensure that the proceeds of any litigation are distributed by the trustee among all the bondholders.

Although the inclusion of CACs in bond contracts has been a longstanding market practice in some jurisdictions, including notably bonds governed by English law, there has been a clear shift towards the use of CACs in New York law-governed bonds (which represent a large portion of emerging market government bond issues) since 2003. For example, emerging market countries such as Brazil, Mexico, the Philippines, and South Africa have included CACs governed by New York law in their international bond issues. CAC provisions are also found in bonds governed by Japanese and Luxembourg law. In Germany, the legal basis for the use of CACs was clarified in 2009 to facilitate a broader use of CACs in domestic as well as foreign bond issues. In addition, euro area countries have included CACs in all new bonds with a maturity above one year since January 1, 2013. Finally, many advanced countries have also committed to include CACs in their international bond issues so as to encourage their adoption as standard practice in the market.

Further information on collective action clauses can be found in:
International Monetary Fund, 2013, “Sovereign Debt Restructuring—Recent Developments and Implications for the Fund’s Legal and Policy Framework,” IMF Policy Paper, (Washington: International Monetary Fund).
<http://www.imf.org/external/np/pp/eng/2013/042613.pdf>

Das, Udaibir S., Michael G. Papaioannou, and Christoph Trebesch, 2012, “Sovereign Debt Restructurings 1950–2010: Literature Survey, Data, and Stylized Facts,” IMF Working Paper 12/203 (Washington: International Monetary Fund). <http://www.imf.org/external/pubs/ft/wp/2012/wp12203.pdf>

4. Debt Management Strategy

47. **A debt management strategy is a plan that operationalizes the debt management objectives.**³¹ It lays out the desired composition of the public debt portfolio, which captures the government's preferences with regard to a cost-risk trade-off. A debt management strategy should have a strong focus on managing the risk exposure embedded in the debt portfolio—specifically, potential variations in the cost of debt servicing and its impact on the budget and the level of public debt. Implementation of the strategy entails new debt issuance and liability management operations.

48. **The risks inherent in the government's debt structure should be carefully monitored and evaluated.** These risks should be mitigated to the extent feasible by modifying the debt structure, taking into account the cost of doing so. Box 3 summarizes some of the pitfalls encountered in public debt management. A range of policies and instruments can be employed to help manage these risks. The trade-offs between different debt management strategies can be evaluated using the expected financial cost and volatility under a wide range of possible economic and financial scenarios.³²

Box 3. Some Pitfalls in Debt Management

The following pitfalls in debt management are based on practices that may, for example, reflect a willingness to accept a higher level of debt portfolio risk or a decision to focus solely on short-term benefits. Thus, the implications of the following debt management practices need to be borne in mind:

1. **Increasing the vulnerability of the government's financial position by increasing risk, even though it may lead to lower costs and a lower deficit in the short run.** Debt managers should avoid exposing their portfolios to risks of large or catastrophic losses, even with low probabilities, in an effort to capture marginal cost savings that would appear to be relatively "low risk."
 - *Maturity structure.* A government faces an inter-temporal trade-off between short-term and long-term costs that should be managed prudently. For example, excessive reliance on short-term or floating rate debt to take advantage of lower short-term interest rates may leave a government vulnerable to volatile and possibly increasing debt service costs if interest rates increase, and even the risk of default in the event that a government cannot refinance its debts at any cost. The resulting instability could also affect the achievement of a central bank's monetary objectives.
 - *Excessive unhedged foreign exchange exposures.* This can take many forms, but the predominant one is directly issuing excessive amounts of foreign currency denominated debt and foreign exchange-indexed debt without currency hedging. This practice may leave a government vulnerable to volatile and possibly increasing debt service costs if its exchange rate depreciates, and the risk of default if it cannot refinance its debts.
 - *Debt with embedded put options.* If poorly managed, these increase uncertainty to the issuer, effectively shortening the portfolio duration, and creating greater exposure to market/rollover risk.

³¹ Developing a Medium-Term Debt Management Strategy (MTDS)—Guidance Note for Country Authorities, <http://www.imf.org/external/np/pp/eng/2009/030309a.pdf>; <http://go.worldbank.org/T7SB6VFEL0>

³² See "Developing a Medium-Term Debt Management Strategy (MTDS)—Guidance Note for Country Authorities" March 03, 2009, for a description of the steps involved in developing a debt management strategy and analytical methods (<http://www.imf.org/external/np/pp/eng/2009/030309a.pdf>); and "Managing Public Debt: Formulating Strategies and Strengthening Institutional Capacity," March 03, 2009, (http://treasury.worldbank.org/bdm/pdf/10_Managing_PD_Strenthen_Instit_Capacity.pdf).

- *Debt with early cancellation clauses.* Early termination events or rating trigger clauses can pose risk for debt management and need proper consideration.
 - *Debt with negative pledge or acceleration clauses.* When possible, each government should consider whether there is any benefit from making all their sovereign debt rank pari-passu.
 - *Derivatives other than plain vanilla swaps.* Swaptions are sometimes used to alter current financial costs at the expense of higher future volatility
 - *Contingent liabilities.* If contingent liabilities, such as implicit guarantees provided to financial institutions, are poorly managed, they tend to be associated with significant moral hazard.
2. **Distorting private vs. government decisions, as well as understating the true interest cost.**
- *Government debt collateralized by shares of state-owned enterprises (SOE) or other assets.* In addition to understating the underlying interest cost, they may distort decisions regarding asset management.
 - *Debt collateralized by specific sources of future tax revenue.* If a future stream of revenue is committed for specific debt payments, a government may be less willing to undertake changes that affect this revenue, even if the changes would improve the tax system.
 - *Tax-exempt or reduced tax debt.* This practice is used to encourage the placement of government debt. The impact on the deficit is ambiguous, since it will depend upon the taxation of competing assets and whether the after-tax rate of return on taxable and tax-exempt government paper is equalized. It will also tend to distort the allocation of savings.
3. **Misreporting contingent or guaranteed debt liabilities.** This may understate the actual level of the government's liabilities.
- *Inadequate coordination.* Actual liabilities may be understated because of inadequate coordination or procedures with regard to borrowings/guarantees by lower levels of government and public corporations (e.g., SOEs). They may affect the financial position of the central government, as the "payer of last resort."
 - *Insufficient information on the debt profile.* There may be insufficient information on the debt profile of lower levels of government or by SOEs, which may be explicitly or implicitly guaranteed by the central government.
 - *Insufficient control over non-financial debt.* Accumulated commercial arrears of lower levels of subfederal governments and state-owned companies represent also a contingent liability for the central government that needs to be taken into consideration.
 - *Repeated debt forgiveness for lower levels of government or for SOEs.*
 - *Guaranteeing loans with a high probability of being called (without appropriate budgetary provisions).*
 - *Liabilities from public-private partnership (PPP) projects.* Poor coordination, procedures, and/or institutional capacity can lead to the misreporting of liabilities arising from PPP projects.
4. **Using non-market financing channels.** In some cases the practice can be unambiguously distortionary.
- *Special arrangements with the central bank for concessional credit to the government.* This includes zero/low interest overdrafts or special treasury bills.
 - *Forced borrowing from suppliers.* This practice, which may be carried out either through expenditure arrears or through the issuance of promissory notes, tends to raise the price of government expenditures, as do tied borrowing arrangements.

- *Creating a captive market for government securities.* For example, in some countries the government pension plan is required to buy government securities. In other cases, banks are required to acquire government debt against a certain percentage of their deposits. While some forms of liquid asset ratios can be a useful prudential tool for liquidity management, they can have distortionary effects on debt servicing costs, as well as on financial market development.
5. **Conducting improper oversight and/or recording of debt contracting and payment, and/or of debt holders.** Government control over the tax base and/or the supply stock of outstanding debt is reduced.
- *Failing to record implicit accrued interest on zero-interest long-term debt.* While helping the cash position of the government, if the implicit accrued interest is not recorded, the true deficit is understated.
 - *Too broad an authority to incur debt.* This can be due to the absence of parliamentary reporting requirements on debt incurred, or the absence of a borrowing limit or debt ceiling. However, the authority must ensure that existing debt service obligations are met.
 - *Inadequate controls regarding the amount of debt outstanding.* In some countries a breakdown in internal operations, in conjunction with poor documentation, has led to more debt being issued than had been officially authorized.
 - *Onerous legal requirements with respect to certain forms of borrowing.* In some countries, more onerous legal requirements with respect to long maturity borrowings (relative to short maturity borrowings) have led to disproportionate reliance on short-term borrowings, which compounds rollover refinancing risk.

49. **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.** Rather than simply examining the debt structure in isolation, several governments have found it valuable to consider debt management within a broader framework of the government's balance sheet and the nature of its revenues and cash flows. Irrespective of whether governments publish a balance sheet, it is possible to construe such a conceptual balance sheet, and consideration of the financial and other risks of the government's assets can provide the debt manager with important insights for managing the risks of the government's debt portfolio. For example, a conceptual analysis of the government's balance sheet may provide debt managers with useful insights about the extent to which the currency structure of the debt is consistent with the revenues and cash flows available to the government to service that debt. In most countries, these mainly comprise tax revenues, which are usually denominated in local currency. In this case, the government's balance sheet risk would be reduced by issuing debt primarily in domestic currency securities, preferably with long maturities. For countries without well-developed domestic debt markets, this may not be feasible, and governments are often faced with the choice between issuing short-term or indexed domestic debt and foreign currency debt. Therefore, development of the domestic debt market, which can mitigate this risk significantly, should be accorded priority. The financial analysis of the government's revenues and cash flows provides a sound basis for measuring the costs and risks of the feasible strategies for managing the government's debt portfolio. The asset and liability management approach is summarized in Box 4.

50. **Some countries have extended this approach to include other government assets and liabilities.**³³ For example, in some countries where the foreign exchange reserves are funded by

³³ See for example, *Code of Fiscal Transparency*, paragraph 212.

foreign currency borrowings, debt managers have reduced the government's balance sheet risk by ensuring that the currency composition of the debt that backs the reserves, after taking account of derivatives and other hedging transactions, reflects the currency composition of the reserves. However, other countries have not adopted this practice because of considerations relating to exchange rate objectives and the institutional framework, including issues related to the role and independence of the central bank.

51. **Debt managers should carefully assess and manage the risks associated with foreign currency, short-term and floating rate debt.** In the absence of compelling evidence that the government has significant direct revenues or assets denominated in foreign currencies, debt management strategies that include an over-reliance on foreign currency or foreign currency-indexed debt and short-term or floating rate debt are very risky. For example, while foreign currency debt may appear, *ex ante*, to be less expensive than domestic currency debt of the same maturity (given that the latter may include higher currency risk and liquidity premia), it could prove to be costly in volatile capital markets or if the exchange rate depreciates. Debt managers should also be aware of the fact that the choice of exchange rate regime can affect the links between debt management and monetary policy. For example, foreign currency debt may appear to be cheaper in a fixed exchange rate regime because the regime caps exchange rate volatility. However, such debt can prove to be very risky if the exchange rate regime becomes untenable. Many governments use derivatives to hedge foreign currency positions. In that case, debt managers should include the cost of hedging when computing the effective cost of borrowing through foreign currency.

52. **Short-term or floating rate debt (whether domestic or foreign currency-denominated), which may appear, *ex ante*, to be less expensive over the long run in a positively-sloped yield curve environment, can create a substantial refinancing risk for the government.** It may also constrain the central bank from raising interest rates to address inflation or support the exchange rate because of concerns about the short-term impact on the government's financial position. However, such actions might be appropriate from the viewpoint of macroeconomic management and, by lowering risk premia, may help to achieve lower interest rates in the longer run. Macro-vulnerabilities could be exacerbated if there is a sudden shift in market sentiment as to the government's ability to repay, or when contagion effects from other countries lead to markedly higher interest rates. Many emerging market governments have too much short-term and floating rate debt. However, over-reliance on longer-term fixed rate financing also carries risks if, in some circumstances, it tempts governments to deflate the value of such debt in real terms by initiating surprise inflation. Any such concerns would be reflected in current and future borrowing costs. Maturity choices therefore have to be adapted to circumstances that may vary across countries and over time.

Box 4. Asset and Liability Management

Efficient management of the public debt portfolio, lower hedging costs, and greater ability to absorb exogenous shocks could be facilitated by debt management practices that take into account the government's overall balance sheet structure. Such a public asset and liability management (ALM) framework, however, presupposes well-defined macroeconomic and ALM objectives, and a reliable assessment of future public revenues and on- (and off-) balance sheet liabilities, in addition to good coordination among the public entities involved. These are non-trivial challenges to overcome. It is essential that the public ALM framework incorporates the public debt management scope and objectives.

There are important differences between the government and private companies in applying ALM. While some governments have attempted to produce a balance sheet quantifying the value of their assets and liabilities (including future revenues and expenditures), this has proven a challenge as the public balance sheet is far more complex and diversified than that of a private company. In particular, the objective of the ALM approach is to consider the various types of assets and obligations the government manages and explore whether the financial characteristics associated with those assets can provide insights for managing the cost and risk of the government's liabilities. This analysis involves examining the financial characteristics of the asset cash flows, and selecting liabilities with matching characteristics in order to help smooth the budgetary impact of shocks on debt servicing costs. The analysis of cash flows also provides a basis for measuring the risks of the liability portfolio and measuring cost/risk trade-offs relevant for deciding the appropriate debt portfolio.

Using a conceptual ALM framework for debt and cash management can be a useful approach for several reasons. At a minimum, it ensures that the cost/risk analysis of the government's debt portfolio is based on the government's net revenues that will be used to service the debt. It enables the government debt managers to consider all types of asset and liability portfolios that are under the government's management. Assessing the main risks around these portfolios can help a government design a comprehensive strategy to help reduce the overall risk in its balance sheet. The ALM approach also provides a useful framework for considering governance arrangements for managing the government's balance sheet.¹

1/ See also Das, Udaibir S., Yin Lu, Michael G. Papaioannou, and Iva Petrova, 2012, "Sovereign Risk and Asset and Liability Management—Conceptual Issues," IMF Working Paper 12/241 (Washington: International Monetary Fund). <http://www.imf.org/external/pubs/ft/wp/2012/wp12241.pdf>

53. **If a country lacks a well-developed market for domestic currency debt, a government may be unable to issue long-term domestic currency debt at a reasonable cost, and consequently must choose between short-term domestic currency debt and longer-term, foreign currency debt.** Even so, given the potential for sizeable economic losses if a government cannot refinance its debt, refinancing risk should be given particular emphasis. The government can reduce refinancing risk and borrowing costs by issuing in segments that are attractive to a wider range of investors, thus broadening the investor base. Refinancing risk can also be reduced by lengthening the maturity of new debt issues. Options to lengthen maturities include issuing floating rate debt, foreign currency or foreign currency-indexed debt, and inflation indexed debt.³⁴ Over the medium term, a strategy for developing the domestic currency debt market can relieve these constraints and permit the issuance of a less risky debt structure. This should be reflected in the overall debt management strategy. In this context, gradual increases in the maturity of new fixed-rate domestic currency debt issues may raise costs in the short run, but they reduce refinancing risk and often constitute important steps in developing domestic debt markets. However, debt structures which entail extremely uneven cash flows should, to the extent possible, be avoided.

³⁴ While refinancing risk can be reduced through such longer maturity instruments, the short duration of floating rate and indexed debt still exposes the issuer to potential variability in debt service costs.

54. **Some governments would be well served to accept higher funding costs to keep refinancing risks under control, as concentrating the debt in benchmark issues at key points along the yield curve to reduce the liquidity premia required by investors may increase refinancing risk.**

Reopening previously issued securities to build benchmark issues can enhance market liquidity, thereby reducing the liquidity risk premia in the yields on government securities and lowering government debt service costs. Governments seeking to build benchmark issues often hold liquid financial assets, spread the maturity profile of the debt portfolio across the yield curve, and use domestic debt buybacks, exchanges, or switches of older issues with new issues to manage the associated refinancing risks.

55. **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.**³⁵ The need for cost-effective cash management recognizes that the window of opportunity to issue new securities does not necessarily match the timing of expenditures. A liquidity buffer consisting of cash, liquid financial assets, and contingent credit lines can provide flexibility in debt and cash management operations in the event of temporary financial market disturbances. A buffer enables governments to honor their obligations, and provides the necessary flexibility to absorb shocks when access to borrowing in capital markets is temporarily curtailed or very costly. Liquid assets are a more secure source of funds than unconditional, contingent credit lines, since financial institutions called upon to provide funds under these lines may attempt to prevent their exposures from expanding by withdrawing other lines from the government. Some governments that have secure access to capital markets prefer to minimize their holdings of liquid financial assets and instead rely on short-term borrowings and overdraft facilities to manage day-to-day fluctuations in their revenues and cash flows. On the other hand, some countries use a liquidity buffer to ensure continuity and stability in the issuance of government securities so that the buffer increases when the issuances exceed the financing need and decreases in opposite situations.³⁶ Sound cash management needs to be supported by efficient infrastructure for payments and settlements, which are often based on dematerialized securities and a centralized, book-entry register. It is also important to monitor, manage, and, if appropriate, limit any credit and counterparty risks that may arise as a result of the assets held in liquidity buffers.

56. **Sound cash management facilitates debt management and monetary operations.** Particularly in some developing countries where cash management is not given a high priority, poor or inadequate cash management practices have tended to hamper efficient debt management operations and the conduct of monetary policy.³⁷ Notwithstanding the desirability for a clear separation of debt management and monetary policy objectives and accountabilities, the search for secure access to liquidity may create a challenge for cash managers that might be more easily dealt with if debt and cash management functions are integrated in the same

³⁵ For further details on sound cash management practices and the benefit of a Single Treasury Account, see for example, <http://www.imf.org/external/pubs/cat/longres.aspx?sk=40111.0>.

³⁶ The regulatory framework establishing liquidity buffers should specify the purposes for which they could be used.

³⁷ Payment of arrears is one common example of poor cash management.

institution or work in close collaboration.³⁸ Where cash and debt management functions are separately managed, for example by the central bank or Treasury and a debt management entity (inside or outside the ministry of finance), respectively, close coordination and information flows, in both directions, are of paramount importance to avoid short-run inconsistencies between cash, debt and monetary operations. A clear delineation of institutional responsibilities, supported by a formal service agreement between the central bank, treasury, and the debt management entity, can further promote sound cash management practices.

57. **Appropriate policies related to the management of external debt vulnerabilities can also play a valuable role in meeting a government's financial obligations in the face of economic and financial shocks.** Box 5 summarizes some indicators that can be used as a starting point for assessing a country's external debt vulnerability. More broadly, the level of foreign exchange reserves should be set in accordance with the government's access to capital markets, the exchange rate regime, the country's economic fundamentals and its vulnerability to economic and financial shocks, the cost of carrying reserves, and the amount of short-term foreign currency debt outstanding. Governments lacking secure access to international capital markets could consider holding reserves that bear an appropriate relationship to their country's short-term external debt, regardless of whether that debt is held by residents or nonresidents. Although compliance with debt ceilings and the conduct of DSA is beyond the responsibility of debt managers, there are some indicators specific to the government's debt situation that governments and debt managers need to consider. Ratios of debt to GDP and to tax revenue, for example, would seem to be very relevant for public debt management, as would indicators such as the debt service ratio, the average interest rate, various maturity indicators, and indicators of the composition of the debt.

³⁸ See Section IV. 1.3.

Box 5. Overview of Indicators of External Debt Vulnerability 1/

Debt-Related Indicators	
	Debt-related indicators should, in general, be considered in conjunction with medium-term scenarios, which allow the analysis of debt sustainability over time and under a variety of alternative assumptions.
Ratio of Short-Term External Debt to Reserves	Indicator of vulnerability to economic and financial shocks, stemming from the amount of short-term external debt outstanding.
Ratio of External Debt to Exports	Indicator of trend in debt that is closely related to the repayment capacity of the country.
Ratio of External Debt to GDP	Indicator relating debt to the country's resource base (reflecting the potential of shifting production to exports or import substitutes so as to enhance repayment capacity).
Average Interest Rate on External Debt	Indicator relating to borrowing terms. In conjunction with debt/GDP and debt/export ratios and growth outlook, this is a key indicator for assessing debt sustainability.
Average Residual Maturity	Indicator to track the maturity of public debt in an effort to monitor refinancing risk.
Share of Foreign Currency External Debt in Total External Debt	Indicator to monitor the impact of exchange rate changes on debt (balance sheet effect), used in conjunction with information on derivatives that intend to mitigate the debt portfolio's currency exposures

1/ The definition of external debt is on the basis of residency; see Sixth Edition of the IMF's *Balance of Payment and International Investment Position Manual* (BPM6).

2/ Indicators of external debt sustainability are presented <http://www.imf.org/external/pubs/ft/dsa/lic.aspx> and Chapter 14, paragraphs 14.10–14.20, *2013 External Debt Statistics Guide*; also see <http://go.worldbank.org/6V603CE490>.

58. **Hedging instruments, when available, can be used to move the cost and risk profile of the debt portfolio closer to the preferred portfolio composition.** Buybacks and switches can also be used to align the debt portfolio to the desired composition.

5. Risk Management Framework

59. **A framework should be developed to enable debt managers to identify and manage the trade-offs between expected cost and risk in the government debt portfolio.** The cost of government debt includes two components: (1) the financial cost, which typically is considered to be the cost of servicing the debt over the medium to long run (and may be measured in terms of its impact on the government's fiscal position); and (2) the potential cost of real economic losses that may result from a financial crisis if a government has difficulty rolling over its debt, or if it defaults.¹

¹ Most countries measure the financial cost and risk of government debt over the medium to long run in terms of the future stream of nominal debt service costs. However, for countries that actively manage their debt portfolios to profit from expected movements in interest rates and exchange rates, which differ from those implicit in current market prices, the net returns on their trading positions are often measured in terms of changes in the market value

To calculate the expected cost of debt under a particular strategy for managing the portfolio, debt servicing costs can be projected forward over the medium to long term, based on assumptions of future interest and exchange rates and future borrowing needs. To minimize bias in choosing among different strategies, some governments use “market neutral” assumptions of future interest and exchange rates (e.g., based on market measures of forward rates, or on simple assumptions that rates will remain unchanged, etc). The expected cost can be evaluated both in terms of the projected financial impact on the government’s budget or other measure of its fiscal position, as well as for possible real costs if the projected debt service is potentially unsustainable in terms of its impact on future tax rates or government programs, or if there is a potential for default.

60. **Market risk is measured in terms of potential increases in debt servicing costs from changes in interest or exchange rates relative to the expected costs.**² The potential real economic losses that may result from such increases in costs or if the government cannot refinance its debt should also be considered. Public debt managers typically manage several other types of risk, as summarized in Box 1. An important role of the debt manager is to identify these risks, assess to the extent possible their magnitude, and develop a preferred strategy for managing the trade-off between expected cost and risk. Following government approval, the debt manager also is normally responsible for the implementation of the portfolio management and risk management policies. To carry out these responsibilities, debt managers should have access to a range of financial and macroeconomic projections. Where available, debt managers should also have access to an accounting of official assets and liabilities, on a cash or accrual basis. They also need complete information on the schedule of future coupon and principal payments and other characteristics of the government’s debt obligations, together with budget projections of future borrowing requirements.

61. **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.** This assessment is often conducted using financial models ranging from simple scenario-based models, to more complex models involving highly sophisticated statistical and simulation techniques.³ The stress testing framework should consider the interrelations among the variables that affect public debt dynamics and cover extreme scenarios to better assess the costs and risks associated with the debt portfolio. When constructing such assessments, debt managers may factor in the risk that the government will not be able to refinance its debt and be forced to default, which has costs that are broader than just to the government’s budget. Moreover, debt managers should consider the interactions between the

of the trading portfolio, while risk is often measured in terms of the variance of these changes.

² If ALM is applied, the risk could then be measured by the mismatch in the composition of sovereign assets and liabilities (e.g., the currency composition of the foreign-currency debt versus the foreign-currency reserves).

³ Complex simulation models should be used with caution. Data constraints may significantly impair the usefulness of these models, and the results obtained may be strongly model-dependent and sensitive to the parameters used. For example, some parameters may behave differently in extreme situations or be influenced by policy responses. When complex simulations are used, it is recommended that the information be complemented with scenario analysis.

government's financial situation and those of the financial and non-financial sectors in times of stress in order to ensure that the government's debt management activities do not exacerbate risks in the private sector.⁴ In general, the models used should enable government debt managers to undertake the following types of risk analysis:

- Project expected future debt servicing costs over a medium- to long-term horizon based on assumptions regarding factors affecting debt-servicing capability, such as: new financing requirements; the maturity profile of the debt stock; interest rate and currency characteristics of new debt; assumptions for future interest rates and exchange rates; and the behavior of relevant non-financial variables (e.g., commodity prices for some countries).
- Generate a "debt profile," consisting of key risk indicators of the existing and projected debt portfolio over the projected horizon.⁵
- Calculate the risk of future debt servicing costs in both financial and real terms by summarizing the results of stress tests that are formulated on the basis of the economic and financial shocks to which the government and the country more generally are potentially exposed. Risks are typically measured as the potential increase in debt servicing costs under the risk scenarios relative to the expected cost.
- Summarize the costs and risks of alternative strategies for managing the government's debt portfolio as a basis for making informed decisions on future financing alternatives.

62. **The appropriate strategy depends on the government's tolerance for risk.** The degree of risk a government is willing to take may evolve over time depending on the size of the government debt portfolio, and the government's vulnerability to economic and financial shocks. In general, the larger the debt portfolio and the higher the vulnerability of the country to economic shocks, the larger the potential risk of loss from a financial crisis or government default, and the greater the emphasis that should be placed on reducing risks rather than costs. Such strategies include selecting maturities, currencies, and interest rate terms to lower risk, as well as fiscal authorities placing more stringent limits on budget decisions that increase the need for debt issuance. The latter approach may be the only option available to countries with limited access to market-based debt instruments, such as those that rely primarily on concessional financing from bilateral or multilateral creditors.

63. **Debt managers in well-developed financial markets typically follow one of two courses: periodically determine a desired debt structure to guide new debt issuance for the**

⁴ Of course, governments should also take corrective measures, such as eliminating policy biases that may encourage excessive risk-taking by the private sector.

⁵ A typical profile will include such indicators as the share of short-term to long-term debt, the share of foreign currency to domestic debt, the currency composition of the foreign currency debt, the average maturity of the debt, and the profile of maturing debts.

subsequent period, or set strategic targets and ranges for key risk indicators of the portfolio to guide the day-to-day management of the government’s debt portfolio. Such portfolio targets typically are expressed as numerical targets for key portfolio risk indicators, such as the share of short-term to long-term debt, and the desired currency composition and interest rate duration of the debt. The key distinction between these two approaches is the extent to which debt managers operate in financial markets on a regular basis to adhere to the “target or range.” However, the use of a strategic target may be less applicable for countries with less-developed markets for their debt, since a lack of market liquidity may limit their opportunities to issue debt with the desired characteristics on a regular basis. Even so, many emerging market countries have found it useful to establish somewhat less stringent “guidelines” for new debt in terms of the desired maturities, interest rate structure, and currency composition. These guidelines often incorporate the government’s strategy for developing the domestic debt market.

64. **Strategic target portfolios can be powerful management tools because they represent the portfolio structure that the government would prefer to have, based on its preferences with respect to expected cost and risk.** As such, they can help guide public debt managers in their portfolio and risk management decisions, for example, by requiring that debt management decisions move the actual portfolio closer to the strategic target portfolio.⁶ Governments should strive to ensure that the design of their strategic target is supported by a risk management framework that ensures the risks are well specified and managed, and that the overall risk of their debt portfolios is within acceptable tolerances. Where markets are well developed, debt managers should try to ensure that their desired debt structures or strategic targets are clear and consistent with the objectives for debt management, and publicly disclosed and explained.

5.1 Scope for active management

65. **Debt managers who seek to actively manage the debt portfolio in order 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.** These risks include possible financial losses, as well as conflicts of interest, and adverse signaling with respect to monetary and fiscal policies.

66. **Debt managers and policymakers should not engage in tactical trading on the basis of inside information with respect to future fiscal or monetary policy actions.** Debt managers may have better information on financial flows in the domestic market and the financial condition of market participants due to the government’s privileged role as supervisor or regulator of the financial system. However, most governments consider it unwise and unethical to try and capitalize on such inside information, especially in the domestic market. This is because the government is usually the dominant issuer of debt in the domestic market, and it risks being perceived as manipulating the market, if it buys and sells its own securities or uses derivatives for the purpose of

⁶ However, debt managers should be mindful of the transaction costs associated with continuously rebalancing the debt portfolio to mirror the target portfolio, as well as the costs associated with making a major shift in the structure of the portfolio over a short period of time. Common practice is therefore to express the portfolio characteristics as a range for the relevant variables, such as currency composition, interest rate duration, and level of refinancing.

trying to generate additional income. Moreover, if the debt managers adopt domestic interest rate or currency positions, their actions could also be interpreted as signaling a government view on the desired future direction of interest rates or the exchange rate, thereby making the central bank's task more difficult.

67. **In foreign capital markets, debt managers generally have little or no information on the nature of financial flows beyond that available in the market generally.** Even so, some governments actively manage their foreign currency debt in the hope of generating risk-adjusted returns, or to enable their portfolio managers to accumulate greater market knowledge, in an attempt to generate cost savings on major borrowings. Many governments do not consider it appropriate to undertake such tactical trading. In cases where such trading is permitted, it should be conducted under clearly defined portfolio guidelines with respect to position and loss limits, compliance procedures, and performance reporting. In countries where government debt managers undertake tactical trading, it normally comprises only a small fraction of a government's debt management activities.

5.2 Risks arising from the use of derivatives, credit risk, and settlement risk

68. **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).** Derivatives imply taking credit risk as they rely on the commitment of a counterparty to honor its financial obligations. Collateral agreements are effective instruments to limit losses in the event of counterparty default. If the government can clear derivatives via a central counterparty (CCP), the single contract between the government and the original counterparty is replaced by two separate contracts in which the CCP is counterparty to each of the two original parties. Thus, the counterparty risk is transferred to the CCP. If the collateral agreements are bilateral, governments typically pledge collateral when the market value of the derivatives portfolio is positive for the counterparties. Bilateral collateral agreements can, thus, have an impact on the financing need and the liquidity projections of the government.

69. **Credit risk should be assessed and managed consistently by debt and cash managers.** If debt managers are responsible for transacting in financial derivatives and investing in liquid assets, and if cash management implies opening short-term lending facilities to financial institutions covered by framework agreements, credit risk should be managed in a consistent way. Conceptually, governments should set exposure limits for individual counterparties that take account of the government's actual and contingent consolidated financial exposures to that counterparty arising from debt and foreign exchange reserves management operations; in practice, the government may achieve this within a structure of delegated responsibilities. Credit ratings from independent credit rating agencies can be used in the evaluation of individual counterparties. Credit risk can also be managed by holding a diversified portfolio across a number of acceptable financial counterparties and also through collateral agreements. 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 (see Box 1).

5.3 *Contingent liabilities and other non-debt obligations*

70. **Debt managers should ensure that the impact of risks associated with contingent liabilities on the government’s financial position, including its overall liquidity condition, is taken into consideration when designing debt management strategies.** Contingent liabilities represent potential financial claims against the government which have not yet materialized, but which could trigger a financial obligation or liability under certain circumstances. They may be explicit (such as government guarantees on borrowings by certain domestic borrowers and guarantees provided under public private partnership (PPP) contracts, government insurance schemes with respect to crop failures or natural disasters, and instruments such as put options on government securities) or implicit, where the government does not have a contractual obligation to provide assistance, but (ex post) decides to do so because it believes the cost of not intervening is unacceptable; examples include possible measures to support the financial sector, state-owned enterprises, or sub-central governments. Consideration should also be given to other non-debt obligations, such as pension liabilities.

71. **Unlike most government financial obligations, however, contingent liabilities have a degree of uncertainty—they may materialize only if certain events occur, and the size of the fiscal payout depends on the structure of the undertaking.** Experience indicates that these contingent liabilities can be very large, particularly when they involve recapitalization of the banking system by the government or government obligations that arise from poorly designed programs for privatization of government assets. If structured without appropriate incentives or controls, contingent liabilities are often associated with moral hazard for the government.

72. **Governments should monitor the risk exposures they are entering into through their explicit contingent liabilities, and ensure that they are well informed of the associated risks of such liabilities.** Some governments have found it useful to centralize this monitoring function. In all cases, the debt managers should be aware of the explicit contingent liabilities that the government has entered into. They should also be conscious of the conditions that could trigger implicit contingent liabilities, such as lax supervision and other policy distortions that can lead to poor asset and liability management practices in the banking sector.

73. **The fiscal authorities should also consider making budget allowances for expected losses from explicit contingent liabilities.**⁷ In cases where it is not possible to derive reliable cost estimates, the available information on the cost and risk of contingent liabilities or a liquidity drain can be summarized in the notes to the budget tables or the government’s financial accounts, since contingent liabilities may represent a significant balance sheet risk for a government. Some

⁷ To the extent that specific budget allowance for contingent liabilities may affect the cost of credit, the benefit of having prudent allocations against the possibility of a realization of contingent liabilities should be weighed.

governments factor in a portion of the contingent liabilities into the projections for future borrowing requirements that are made for the medium-term debt management strategy.⁸

74. **Governments should also take steps to reduce the risks associated with contingent liabilities (including PPPs).** Such steps should include setting up a clear legal framework for commitments creating explicit contingent liabilities that can be made by the government. Measures to reduce exposure to implicit contingent liabilities may include strengthening prudential supervision and regulation, introducing appropriate deposit insurance schemes, undertaking sound governance reforms of public sector enterprises, and improving the quality of macroeconomic management and regulatory policies.

6. Development and Maintenance of an Efficient Market for Domestic Government Securities

75. **In order to minimize cost and risk over the medium to long run, debt managers should take adequate measures to develop an efficient government securities market.** An efficient market for securities provides the government with a mechanism to finance its expenditures in a way that does not rely on the central bank to finance budget deficits. Moreover, by promoting the development of a deep and liquid market for its securities, debt managers, in tandem with central banks and supervisors and regulators of financial institutions, and market participants (see Box 6) can achieve lower debt service costs over the medium to long term as liquidity premia embedded in the yields on government debt wane. Indeed, where they have lower credit risks than other participants in the markets, the yields on government securities serve as a benchmark in pricing other financial assets, thereby serving as a catalyst for the development of deep and liquid money and bond markets generally. This helps to buffer the effects of domestic and international shocks on the economy by providing borrowers with readily accessible domestic financing, and it is especially valuable in times of global financial instability, when lower quality credits may find it particularly difficult to obtain foreign funding. In some countries, declining government financing or the absence of sustained fiscal deficits have either led to the declining liquidity of an existing government market or prevented the development of a government securities market. In some cases, governments facing such conditions have decided to issue debt, not to finance expenditures but to support the development and liquidity of a domestic fixed-income market. In such cases, consideration should be given to the likely cost (in case the interest rate on borrowed funds exceeds the return on the assets acquired) and the risks incurred when the surplus is invested.

⁸ In calculating debt risk indicators, when guarantees and other contingent liabilities are present, see *Public Sector Debt Statistics: Guide for Compilers and Users* (2011). <http://www.imf.org/external/np/sec/pr/2011/pr11201.htm>; <http://www.tffs.org/PSDStoc.htm>.

Box 6. Relevant Conditions for Developing an Efficient Government Securities Market

In many countries, the development of a government securities market has been important in helping to create a liquid and efficient domestic debt market.

Countries have adopted different approaches in the timing and sequencing of measures to develop these markets. The main elements of many of these programs are summarized below. One important prerequisite for building investor confidence is a track record of a sound macroeconomic environment. This includes implementing appropriate fiscal and monetary policies, coupled with a viable balance of payments position and exchange rate regime. In addition, developing a domestic securities market involves addressing, even in the nascent stages, the supply and demand of securities, securities market regulation, and market infrastructure.

It is important to note that the development of market infrastructure will not be a policy priority in all countries, as there are fixed costs that government authorities and market players must pay to set up the necessary infrastructure, requiring sufficient scale of market operations to reap the benefits, which itself largely depends on the size of the economy. Smaller countries and countries with shallow financial systems may not be able to reach the same level of development as larger economies, but can nonetheless achieve a sound market infrastructure.

In developing the supply of government securities, key elements for establishing an efficient primary market include:

- Establishing clear objectives for debt management and government securities issuance; moving towards predictable and transparent debt operations, (e.g., with pre-announced issuance calendars, announcement of auction outcomes, and debt reporting);
- Consulting regularly with market participants;
- Developing capacity to project government cash flows to estimate the borrowing requirement;
- Creating safe and competitive distribution channels for securities (e.g., auctions, syndication, retail distribution and use of dealers, when needed) that are appropriately targeted to investor needs; and
- Gradually extending the maturity of government securities by regularly issuing instruments at different segments of the yield curve (short-, medium-, and long-term) in line with demand side conditions and the stage of market development; and consolidating the number of debt issues into fewer, larger individual lines in key maturities with a view to eventually providing market benchmarks.

Strengthening the demand for government securities involves acting on a broad front to build the potential investor base through measures such as:

- Removing regulatory and fiscal distortions, which inhibit the development of institutional investors (e.g., pension reforms, establishing mutual funds);
- Eliminating below-market-rate funding through captive investor sources; and
- Implementing appropriate rules and regulatory regime enticing participation by foreign investors in the domestic market.

Developing securities market regulation to support the issuance and trading of government securities includes:

- Establishing a legal framework for securities issuance;
- Establishing a debt management strategy and an annual borrowing plan;
- Enabling sound supervisory practices to be enforced in the government securities market; and
- Introducing appropriate valuation principles and reporting requirements for accounting, auditing, and disclosure in the financial sector.

Market infrastructure to help build market liquidity and reduce systemic risk can be developed over time by:

- Introducing trading arrangements suitable for the size of the market, which include efficient and safe custody, clearing, and settlement procedures;
- Encouraging the development of a system of market-makers, once a benchmark develops and a certain degree of liquidity in the market is present, to enable buyers and sellers to transact efficiently at prices reflecting fair value;

- Removing transaction taxes or other regulatory impediments, which may hamper trading in government securities;
- Encouraging the development of the interbank money market and a repo market, and at a later stage, the scope for other money market and risk management instruments, such as interest rate futures and swaps; and
- Improving central bank operations to manage market liquidity.

The development of government securities markets is discussed in more detail in *Developing Government Bond Markets: A Handbook*, World Bank and International Monetary Fund (2001).

76. **Experience suggests there is no single optimal approach for developing an efficient market for government securities.**¹ Advanced countries, for example, have established government securities markets using a wide range of approaches involving different sequencing and speed of reforms. Nevertheless, experiences in developing these markets in many countries demonstrate the importance of having sound macroeconomic policies, well-designed market-based monetary policy instruments, and careful sequencing in liberalizing the capital account.

6.1 Portfolio diversification and instruments

77. **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.** Debt issuers can support this objective by diversifying the stock of debt across the yield curve and/or through a range of market instruments. Such actions could be particularly beneficial to emerging market countries seeking to minimize refinancing risk. At the same time, issuers need to be mindful of the cost of such diversification and the market distortions that might arise, since investors may favor particular segments of the yield curve, or specific types of instruments. And, in less-developed markets, the nominal yield curve may extend only to relatively short-term securities. Attempting to extend the yield curve quickly beyond that point has proved to be challenging for these countries. Some governments have tried to address this problem by issuing long-term inflation-indexed debt and floating rate debt. However, debt managers need to balance the gains of mitigating refinancing risk against the risks associated with inflation-indexed or floating-rate debt, including interest rate risk from refixing and the uncertainty of domestic reference rates.

78. **As investors seek to diversify their risks through buying a range of securities and investments, debt managers should attempt to diversify the risks in their portfolios of liabilities.** They can do so by issuing securities at different points along the yield curve (different maturity dates), issuing securities at several different times during the year (rather than issuing a large amount of securities in a single offering), offering securities with different cash flow characteristics (for example, fixed coupon or floating rate, nominal or indexed), and securities targeted at specific investors (for example, wholesale or retail investors, or in certain circumstances, domestic and foreign investors). In this context, debt managers could assess the advantages of offering securities with different cash flow characteristics or targeting specific investor segments

¹ See for example, <http://www.imf.org/external/np/pp/eng/2013/070913.pdf>.

against the risk of increasing market fragmentation, with a large number of different types of securities that are not fungible and easily traded, thereby diminishing the potential for market liquidity. In so doing, debt managers should strive to treat investors equitably and, where possible, develop the overall liquidity of their debt instruments. This would increase their attractiveness to investors and reduce the liquidity premium that investors demand, as well as reduce the risk that the pricing of government securities could be significantly affected by the actions of a small number of market participants. A well-balanced approach aimed at broadening the investor base and spreading refinancing risks, while at the same time recognizing the benefits of building liquid benchmark issues, contributes to the objective of lowering debt costs over the long run.

79. **Offering a range of debt management instruments with standardized features in the domestic market helps make financial markets more complete.** This enables all participants to better hedge their financial commitments and exposures, thus contributing to lower risk premia and reduced vulnerability in the economy more generally.

80. **Where appropriate, issuing instruments with embedded options (such as savings bonds for retail investors, which are redeemable by the bondholder on demand) may also contribute to instrument diversification.**² However, even where valid reasons exist for issuing such securities, debt managers should exercise considerable caution to ensure that the risks inherent in embedded options and other derivative instruments are integrated in the risk management framework, and that the instruments and risks are well understood by both the issuer and other market participants. When issuing instruments targeted to households and other non-professional investors, debt managers should ensure that there is a program of public education aimed at informing the investing public in simplified language about the instruments and their inherent risks. This may be reinforced by providing such information in the term sheet and other informational material used to promote the instruments.

6.2 Primary market

81. **Debt management operations in the primary market should be transparent and predictable.** Regardless of the mechanism used to raise funds, experience suggests that borrowing costs are typically minimized and the market functions most efficiently when government operations are transparent—for example, by publishing borrowing plans well in advance and acting consistently when issuing new securities—and when the issuer creates a level playing field for investors. However, debt managers should retain the flexibility to adjust borrowing plans in response to volatile market conditions, changes in borrowing needs or important changes in the pattern of market demand. The terms and conditions of new issues should be publicly disclosed and clearly explained to investors. The rules governing new issues should treat investors equitably. In addition, debt managers should maintain an ongoing dialogue with market participants and monitor market developments so that they are in a position to react quickly when circumstances require.

² It should be noted that the value of put options should be reflected in the pricing of such instruments or, alternatively, investors should pay a market-based, penalty for early redemption.

82. **To the extent possible, debt issuance should use market-based mechanisms, including competitive auctions and syndications based on published calendars.** In the primary market for government securities, best practice suggests that governments typically use, where feasible, market-based mechanisms to raise funds. For domestic currency borrowings, this typically involves auctions of government securities, although syndications have been successfully used by borrowers that do not have a need to raise funds on a regular basis, or are introducing a new instrument to the market. Governments may in extreme cases need to cancel auctions, for example because of market conditions, or may need to cut off the amounts awarded below the preannounced tender amount or range, for example to avoid causing an excessively unstable after-market. But these types of actions are not advisable merely to achieve short-run debt service cost objectives. Experience has shown that opportunistic use of such practices for short-term benefits will likely affect credibility and damage the integrity of the auction process, causing risk premia to rise, hampering market development, and causing long-run debt service costs to increase. However, for countries with a narrow market, the supply/demand balance may be difficult to calibrate and/or investors may be able to collude. Debt managers can then reap long-term benefits from having some flexibility (e.g., to alter the offer amount) to mitigate the risk of the auction procedure itself, but it could undermine the overall smooth functioning of the market.

83. **Some governments have found that introducing a network of market makers can be a useful mechanism for distributing securities and fostering deep and liquid markets.** Some countries have used primary dealers for this role, while others have sought to encourage a more open financial marketplace. Where primary dealers operate, the incentives and obligations, as well as eligibility criteria to become a primary dealer, need to be defined and disclosed.

84. **Debt managers may improve the liquidity of government securities by issuing securities at several “key maturities” from the short to the long end of the yield curve, conducting regular reopening of securities, and permitting “when issue” trading.** In countries with less developed markets or a less diversified investor base, the advantages from reopenings need to be balanced against the effect on the redemption profile. Further, reopening securities to increase size and stimulate liquidity requires debt managers to develop measures for managing the associated refinancing risk. These measures include the use of cash buffers and liability management operations (e.g., debt buybacks, exchanges, or switches).

6.3 Secondary market

85. **Governments and central banks should promote the development of resilient secondary markets that can function effectively under a wide range of market conditions.** In particular, debt managers should pay attention to maintaining liquidity and transparency to the extent possible in the secondary market. In many countries, debt managers and central banks work closely with financial sector regulators and market participants in promoting secondary market trading (e.g., where appropriate, the introduction and operation of electronic trading systems, rules for trade reporting, the establishment and monitoring of market making obligations—especially in countries with primary dealer systems). This also includes supporting market participants in their efforts to develop codes of conduct for trading participants, and working with them to ensure that

trading practices and systems continuously evolve and reflect best practices. It can further include promoting the development of markets for repos, futures, options, and other derivative instruments, in order to enhance liquidity in the underlying securities, as appropriate for the depth and level of development of the market.

86. **A government can promote the development and maintenance of an efficient secondary market for its securities by removing both taxation and regulatory impediments that reduce investors' willingness to trade securities.** These include removing possible regulations that provide captive funding from financial intermediaries to the government at low interest rates, and modifying tax policies that distort investment in and trading of financial instruments. In addition, government approaches to regulating financial markets and market participants often include a wide range of disclosure and supervision requirements to reduce the risk of fraud, and limit the risk that market participants may adopt imprudent asset and liability management practices that could increase the risk of insolvency and systemic failure in the financial system.

87. **Central banks play a crucial role in promoting the development and maintenance of efficient markets for government securities through the pursuit of sound monetary policies.** By conducting monetary policy in a way that is consistent with their stated monetary policy objectives, central banks help to increase the willingness of market participants to engage in transactions across the yield curve. It is important that government securities are properly designed and used as this typically plays an important role in deepening and increasing liquidity for these securities.

The systems used to settle and clear financial market transactions involving government securities should reflect sound practices.³ Sound and efficient payments, settlement, and clearing systems through "delivery versus payment" (DvP) rules help to minimize transaction costs in government securities markets, thereby contributing to lower financing costs for the government. They also help managing the risks in the financial system more broadly. Agencies responsible for the payments, settlement and clearing systems for financial transactions normally work closely with market participants, including debt managers, to ensure that these systems are able to function well under a wide range of market conditions.

³ Relevant work in this area includes: The *Disclosure Framework for Securities Settlement Systems* published by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO), 1997; and the CPSS-IOSCO Joint Task Force consultative report, *Recommendations for Securities Settlement Systems* (2001).