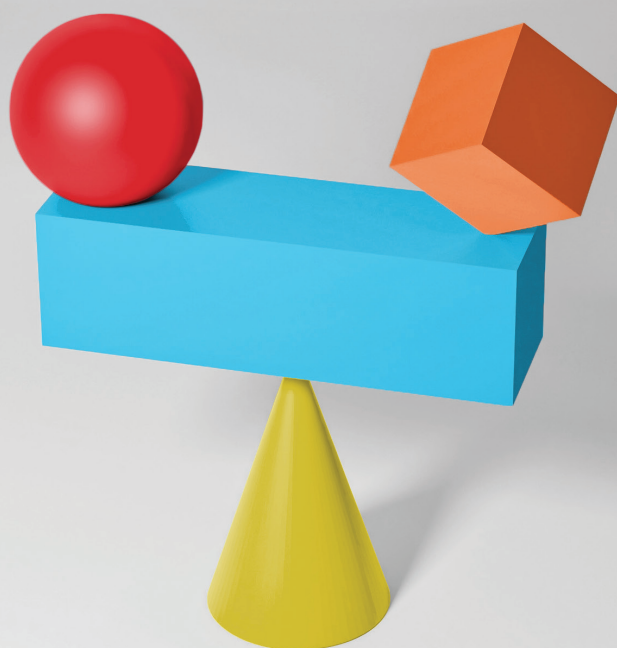


AUDIT OF PUBLIC DEBT MANAGEMENT

A Handbook for Supreme Audit Institutions

VERSION 1



AUDIT OF PUBLIC DEBT MANAGEMENT – A HANDBOOK FOR SUPREME AUDIT INSTITUTIONS

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About the Handbook

Audit of Public Debt Management – A Handbook for Supreme Audit Institutions is an IDI global public good (GPG) developed as a part of the IDI programme on Auditing Lending and Borrowing Frameworks. This handbook is an update on the IDI-WGPD Public Debt Audit Guidance issued in 2012. As an IDI GPG, this product has been developed as per the requirements of the Protocol for Quality Assurance of IDI's GPGs.

This handbook has been developed by an international team of public debt experts, International Organization of Supreme Audit Institutions (INTOSAI) Working Group on Public Debt (WGPD) experts, and resource persons from different supreme audit institutions (SAIs). The handbook contents have been reviewed internally within the product development team, with feedback from experts. All comments have been taken into account and addressed. The handbook has been put out for public exposure as required by the protocol and all comments received during the exposure period have been suitably addressed by experts from the WGPD Secretariat and external experts working as a part of the development team.

This handbook seeks to provide detailed 'how to' guidance to public debt auditors in SAIs in conducting financial, performance or compliance audits of the different aspects of public debt management.

Chapters 2 to 9 in the handbook are divided into two parts. The first part explains the public debt management issue or practice, e.g., debt management strategy, and the second part explains how to audit the issue or practice. The second part on auditing is structured uniformly across chapters and consists of the following sections: (a) audit methodology applicable to the subject matter, (b) representative audit objectives under each methodology, (c) audit criteria, (d) sources of evidence, and (e) illustrations of audit findings on the subject matter.

This handbook may be used alongside the GUID (Guidance) 5250 on the Guidance on the Audit of Public Debt that has been developed by the INTOSAI WGPD for Project 2.9 (Development of a GUID on Aligning and Consolidating Public Debt ISSAIs with ISSAI 100). Currently the handbook is referenced to existing public debt audit International Standards of Supreme Audit Institutions (ISSAIs) at various places. These references will be updated once the endorsement version of the GUID 5250 has been formally endorsed at the XXIV INTOSAI Congress.

IDI and WGPD will conduct a light touch review of this handbook on an annual basis. If there are substantial changes to be made, IDI-WGPD may decide to work on a revised version of the handbook. Such decisions will be taken on the basis of the annual review.¹

¹ INTOSAI Guidances are issued by the PDM, INTOSAI, a part of the INTOSAI Framework of Professional Pronouncements. Currently, the endorsement version of GUID 5250 or Guidance on Audit of Public Debt is posted at www.issai.org, awaiting formal pronouncement at the INTOSAI Congress in 2021.

Acronyms and abbreviations

ALBF	Audit of Lending and Borrowing Frameworks
BIS	Bank for International Settlements
CS-DRMS	Commonwealth Secretariat's Debt Recording and Management System
DeM	debt management
DeMPADebt	Management Performance Assessment
DMFAS	UNCTAD's Debt Management and Financial Analysis System
DMO	debt management office
DPI	DeM performance indicator
DSA	debt sustainability analysis
ECB	European Central Bank
Eurostat	Statistical Office of the European Communities
FSs	financial statements
GAO	United States Government Accountability Office
GDP	gross domestic product
GPG	global public good
GUID	Guidance
IAO/U	internal audit office/unit
IDI	INTOSAI Development Initiative
IFMIS	integrated financial management information system
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
ISSAIs	International Standards of Supreme Audit Institutions
IT	information technology
MoF	Ministry of Finance
MTDS	medium-term debt management strategy
OECD	Organisation for Economic Co-operation and Development
PDM	public debt management
PDMIS	public debt management information system
PLA	primary loan agreement
SAI	supreme audit institution
SLA	subsidiary loan agreement
UNCTAD	United Nations Conference on Trade and Development
WBG	World Bank Group
WGPD	Working Group on Public Debt



QUALITY STATEMENT FOR 'AUDIT OF PUBLIC DEBT MANAGEMENT – A HANDBOOK FOR SUPREME AUDIT INSTITUTIONS', DEVELOPED BY IDI AND THE INTOSAI WORKING GROUP ON PUBLIC DEBT

INTOSAI Goal Chairs and IDI's joint paper on 'Quality assuring INTOSAI public goods that are developed and published outside due process' identifies three levels of quality assurance, as follows:

QUALITY ASSURING INTOSAI PUBLIC GOODS THAT ARE DEVELOPED AND PUBLISHED OUTSIDE DUE PROCESS – Levels of Quality Assurance

Level 1: Products that have been subjected to quality assurance processes equivalent to INTOSAI due process, including an extended period of transparent public exposure (90 days)

Level 2: Products that have been subjected to more limited quality assurance processes involving stakeholders from outside the body or working group responsible for the products' initial development. Quality assurance processes might, for example, include piloting, testing and inviting comments from key stakeholders, although not go as far as full 90-day public exposure

Level 3: Products that have been subjected to rigorous quality control measures within the body or working group responsible for their development

Different levels of Quality Assurance may be appropriate for different GPGs. This GPG has been developed according to quality assurance level 1.

Quality Assurance Protocol: Version 2.0

IDI's Protocol for Quality Assurance (QA) of IDI's Global Public Goods defines measures to ensure quality based on the three levels of quality assurance above. For quality assurance level 1, these measures include: approval by the IDI Board to create the GPG; formation of a competent product development team; peer review by experts external to the development team; modification based on review; proofreading, editing and translation of the document by competent persons; public exposure for a period of 90 days/consultation with relevant stakeholders representing views from most regions, most models of auditing, developed and developing countries, and from the perspective of global bodies; modifications of the document based on comments received during public exposure; and due approvals for the GPG version 1.

Updates to this GPG

This GPG will be subject to a light touch review by IDI and the WGPD on an annual basis (to be initiated by the WGPD Secretariat). Each annual review will consider the need for a major overhaul, and a new quality statement. As this Handbook is not directly linked to a specific ISSAI, no expiry clause is included in this GPG. This GPG is owned jointly by IDI's Professional and Relevant SAls department and the WGPD, who are jointly responsible for maintenance of this GPG.

Quality Assurance Review Process

Martin Aldcroft (Strategic Support Unit, IDI) has undertaken a QA review of the process followed for the development of this GPG, against QA Protocol Version [2.0]. The QA reviewer is familiar with IDI's protocol for QA of GPGs and was not involved in development of the GPG. This QA review process is

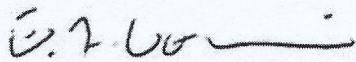
designed to provide all stakeholders with assurance that the IDI has carried out the quality control measures stated above, designed to meet quality assurance level 1.

Results of the Quality Assurance Review

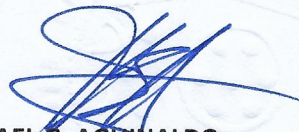
The QA review of the process followed in developing this GPG concluded that the Protocol has been followed as required for quality assurance level 1 in all respects.

Conclusion

Based on the QA review, IDI and the WGPD assure the users of this Global Public Good (GPG) that this document has been subjected to a quality assurance process equivalent to Due Process for INTOSAI Framework of Professional Pronouncements (IFPP), including an extended period of transparent public exposure.



EINAR GORRISSEN
Director General
INTOSAI Development Initiative
9 December 2020



MICHAEL G. AGUINALDO
Chair
INTOSAI Working Group on Public Debt

Chapter 1 Introduction to Public Debt Management and the Related Audit Approach

This handbook will help SAIs to understand the public debt-related concepts, the main participants in public debt management (PDM) and their roles, the importance of PDM and auditing, and how SAIs should approach the audit of public debt.

1.1 What Is Public Debt Management?

PDM is commonly defined as ‘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 PDM goals the government may have set, such as developing and maintaining an efficient market for government securities’.²

According to this definition, the goals or objectives of government debt management (DeM) should be to:

- Meet the borrowing requirements of the government;
- Borrow at the lowest possible cost over the medium to long run;
- Keep a prudent degree of risk in the debt portfolio; and
- Meet any other goals the government may have set, such as developing and maintaining an efficient market for government debt securities.

The main tool to achieve these goals is to prepare and execute a DeM strategy.

Looking at the cost–risk objectives, trade-offs must be made. For emerging market countries, it is commonly cheaper to borrow in low-coupon foreign currencies than in domestic currency. On the other hand, borrowing in foreign currencies normally increases risk in the portfolio (increased foreign currency exposure). While borrowing in the short end of the yield curve is cheaper in most cases than longer-term borrowing, the risk will increase, because the short-term interest is more volatile and the loans need to be refinanced more often (increased interest rate exposure and refinancing risk). Against this background, the essential ingredient in strategy development is to analyse different borrowing scenarios and the trade-offs that must be made. The risk tolerance of the government will finally decide these trade-offs and be reflected in the strategy document.

Thus, the main role of the debt manager is to achieve the desired composition of the government debt portfolio, which captures the government’s preferences regarding the cost/ risk trade-offs. The DeM tools are the medium-term debt management strategy (MTDS) based on cost–risk trade-offs of the debt service flow in the actual and forecasted debt portfolio under different scenarios, annual borrowing plans based on the determined strategy, and borrowing and other DeM operations to meet the strategy goals. As elaborated in Chapter 4, the DeM strategy operationalises the DeM objectives and has a strong focus on managing the risk exposure embedded in the debt portfolio—specifically, potential variations in the cost of debt servicing and its direct impact on the budget.

² World Bank and IMF Guidelines for Public Debt Management of 2001, revised in 2014. Inputs and suggestions for revising the Guidelines were provided by a working group of public debt managers that 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.

The scope of the government DeM strategy is commonly limited to the debt portfolio of the budgetary central government. Extending the scope of the strategy to include debt portfolios of some local governments and administrations can create coordination difficulties when these local administrations are empowered to borrow in the markets to meet their own financing needs. To include such borrowing in the scope of the DeM strategy would require that each local borrowing operation be approved by the central government (i.e., the ministry of finance, MoF) to ensure that all borrowings are in accordance with the strategy. This might not be practicable, nor the most efficient way of controlling borrowing by the sub-nationals.

It has to be clarified that depending on the respective legal framework of each country, the coverage of public debt will be different. The audit should be consistent with the domestic laws of the country and its specific mandate.

The World Bank/IMF Guidelines state the following on the scope of DeM: ‘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.

For the purpose of government DeM, ‘debt’ is simply and commonly defined as financial liabilities created by borrowing, credits accepted under suppliers’ credit agreements,³ issuance of debt securities for any other purpose than borrowing funds (for example, to regularise built-up arrears), and assumption of the payment obligations under a government loan guarantee (i.e., in case of default, the government takes over the loan from the borrower).

In the macroeconomic statistical system, however, the definition of ‘debt’ is much broader, as the purpose is to include all liabilities that carry obligations to make future payments with the potential to create circumstances that render not only government and public corporations, but also the entire economy, vulnerable to solvency and liquidity problems.⁴ Also, the scope is broader, covering the whole public sector: the central government, the local governments, the central bank and the public corporations.

Against this background, the debt is here defined as all financial claims that require payment of interest and/or principal by the debtor to the creditor at a date, or dates, in the future. Based on this broader definition, the Guide on Public Debt Statistics lists the following instruments as debt instruments: special drawing rights; currency and deposits; debt securities; loans; insurance, pension and provisions for calls under standardised guarantee schemes; and other accounts payable.

Comparing this with the narrower definition of debt commonly used in DeM, the only instruments included in both definitions are debt securities, loans and suppliers’ credits.

³ A supplier’s credit agreement is a credit arrangement that includes payment of interest between a purchaser and a supplier of any goods or services that gives the purchaser the right to fully pay for these goods and services at some future date from which these goods or services are delivered or supplied. The financial terms of these agreements are similar to those found in a loan contract.

⁴ Public Sector Debt Statistics: Guide for Compilers and Users (2013), page VII. This Guide was jointly prepared by the following organisations: The Bank for International Settlements (BIS), the Commonwealth Secretariat, the European Central Bank (ECB), the Organisation for Economic Co-operation and Development (OECD), the Statistical Office of the European Communities (Eurostat), the International Monetary Fund (IMF), the Paris Club Secretariat, the United Nations Conference on Trade and Development (UNCTAD) and the World Bank Group (WBG).

For statistical purposes, however, countries are obliged to report those data to the International Monetary Fund (IMF) and, when borrowing from the World Bank, to it as well.⁵

Finally, government DeM should not be part of determining fiscal policy. The objectives of fiscal and DeM policies are quite different, and separate tools are used to achieve them. While a dedicated debt management office (DMO) is usually responsible for DeM operations, the budget department and the macroeconomic unit normally take the lead in fiscal policy strategy and implementation, including the debt sustainability analyses (DSAs).

Fiscal policy is commonly defined as the use of government expenditure, revenue collection (taxation) and loan proceeds to influence the economy of a country. Common fiscal policy objectives are to achieve a stabilised economic output, improve resource allocation and realise a 'fair' distribution of wealth. The fiscal policy strategy to achieve these objectives includes a least-distorting budgetary policy that is balanced over the business cycle, and sound public finances in the form of clear budget deficits and debt limits. The most important fiscal policy tools are the preparation of a medium-term fiscal framework supported by a sound debt sustainability analysis, and the annual budget bills.⁶ Other fiscal policy tools include tax laws and government transfers to promote a fair distribution of wealth, and debt limits to mitigate loose, high-risk or even irresponsible fiscal policy.

Thus, as a fiscal policy tool, finding the optimal level of debt is not part of developing the DeM strategy. Instead, a DSA or a fiscal sustainability analysis is undertaken to keep a check on the debt level relative to its fiscal risks and the forecasted growth of the economy.

1.1.1 Types of debt

Debt can be classified as either domestic or external. Classification methodology may vary according to, amongst other factors, the risks deemed relevant by debt managers. In countries that have historically experienced balance of payments crises, the criterion to best capture the risk associated with debt is the one related to the denominated currency, i.e., debt denominated in the domestic currency would be classified as domestic, and debt denominated in other currencies would be external.⁷ This is also the common classification used by the debt manager to assess the foreign currency risk in the debt portfolio.

Another possibility is to consider residence criteria in debt classification, i.e., the debt held by residents is classified as domestic debt and that held by non-residents is external. This classification is more interesting for countries with free capital flows, assuming that non-resident investors behave differently from resident investors. As a result, securities denominated in local currencies but held by non-residents would be considered external debt while foreign-currency-denominated securities held by residents would be considered domestic debt. This classification is used in the macroeconomic statistical system as described above.⁸

⁵ For good guidance on this broad definition of debt, see ISSAI 5421: Guidance on Definition and Disclosure of Public Debt.

⁶ The budget commonly indicates what the revenues (taxes, grants, loan proceeds, etc.) will be used for, whether they go towards education and investment in infrastructure (items that normally promote growth) or towards other expenses.

⁷ Silva, A. C.; Oliveira de Carvalho, L.; and Ladeira de Medeiros, O. 2010. *Brazil - Public debt: The Brazilian experience*. Washington, DC: World Bank.
<http://documents.worldbank.org/curated/en/967171469672182286/Brazil-Public-debt-the-Brazilian-experience>

⁸ For additional information, see International Monetary Fund, Government Finance Statistics Manual 2014.

In case of public debt, one party always is the government or an institution acting on behalf of the government, and the other party can be an individual, legal entity, bank or government.

By type of creditor, debt can be classified as debt from official creditors and debt from private creditors. Official creditors are governments or government-controlled or -owned financial institutions and international entities as opposed to private creditors. Official creditors include bilateral and multilateral organisations that provide loans. Bilateral creditors are single governments or government agencies that provide loans to other governments, such as when the French government extends a loan to the government of Bangladesh. Multilateral creditors are international organisations (e.g., the World Bank) with countries as Member States that provide loans to country members. In addition to official creditors, there are private creditors. These include private banks that lend money to governments and private buyers that purchase government securities.

1.1.2 Borrowing instruments

Borrowing instruments represent legal agreements concluded between one or several creditors that provide the funds, and the debtor, which receives and uses or 'on-lends' the funds. For every borrowing instrument, there is a specific type of agreement. Agreements specify the terms for the release and reimbursement of the funds and often stipulate specific conditions for their use.

Two main categories of the borrowing instruments are loans and debt securities. Sovereign loans are public credit operations based on a contract that ensures fulfilment of clauses agreed upon by the parties. The parties involved in these operations are the lender of money and the borrower. The parties to a loan contract may be individuals, legal entities, banks or governments.

Based on the nature of the parties involved, there are different types of loans: bilateral, multilateral and private (see the table below). Bilateral loans are those through which a government lends money to another country, for instance, to finance public services or infrastructure to aid in its growth and development. In this case, the borrower is the country receiving the funds for a specific purpose and committing itself to repay to the lender the principal plus interest in the term agreed upon.

When a multilateral body (e.g., World Bank Group, Development Bank of Latin America, Inter-American Development Bank, Asian Development Bank, African Development Bank) grants a loan to the government of one of its member countries, it is a multilateral loan, and if the lender is a private company or private financial institution, it will be a private loan.

Different Types of Loans

Item	Type of Loan	Creditor
1	Bilateral	Another government
2	Multilateral	Multilateral bodies
3	Private	Private company or private financial institution

Public debt also can be raised by using debt securities of various maturities. Bonds and notes are debt securities with an original maturity of over one year. They are usually traded (or tradable) in organised and other financial markets. These instruments provide the holder with regular income (the 'coupon') and return of the principal value on redemption. They can be issued in a variety of forms, of which the most common are conventional, which entitle the holder to a fixed nominal

coupon; and index linked, where the coupon payments are linked to an official index, for example, inflation index or the gross domestic product (GDP) index.

In addition, governments also issue short-term debt instruments (often called money market instruments) with maturities of less than one year. Money market instruments are debt securities that give the owner the unconditional right to receive a stated, fixed sum of money on a specified date. These instruments usually are traded, at a discount, in organised markets; the discount is dependent upon the interest rate and the time remaining to maturity. Included are such instruments as treasury bills, commercial and financial paper, bankers' acceptances, negotiable certificates of deposit (with original maturities of one year or less) and short-term notes issued under note issuance facilities. Other governments issue green bonds and have retail markets.

As loan agreements are legally binding contracts, it is of vital importance to thoroughly know the rights and obligations involved, in order to understand the nature of those obligations.

Borrowers' rights and obligations. The borrower—as a party of the contract and compelled by the legal act to pay the agreed interest and repay the money borrowed—has the right to have a copy of the contract, to have the amount corresponding to the loan as agreed upon in the contract and to receive the settlement documents, such as the payment request from creditors, and justifications of payment, as specified.

The agreement is delivered when it is signed by the government official having the mandate for the purpose.

In order to receive the loan, the borrower is required to comply with the requirements of the lender or financing institution involved, as well as to honour its obligations as a borrower. Apart from its debt service obligations, the borrower commonly is obliged to:

- Report on its financial situation;
- Use the funds for the intended purpose;
- Comply with the agreed fees and payments;
- Pay any expenses incurred in delivering the loan;
- Comply with any special agreement made with the lender, if applicable; and
- Report any change in its economic, political or social circumstances to the lender, before or during the loan term, which may affect the compliance with any of the terms and conditions of the loan agreement.

Lenders' rights and obligations. In turn, lenders also have rights and obligations in this co-liable relationship regarding prudent sovereign borrowing. Lenders have the right to receive back the principal lent plus the agreed interest within the agreed timeframe. They can also search the credit history of the borrowing country, amongst other issues.

1.2 Main Participants in Public Debt Management

The chart in *Figure 1* presents the main participants in PDM and their nexus. These are further described in the text that follows.

The State/the people/present and future citizens. At the top of the hierarchy lies the State of the nation. Debt is an inter-generational contract. Policymakers must ensure that equity is preserved between today's and tomorrow's generations. Borrowings by the government should not only directly benefit its present citizens, but also especially future citizens who will be responsible for debt servicing. The inter-generational character of public debt imposes significant fiduciary responsibilities on management to act with care and loyalty.

Legislative branch (Parliament or Congress) in central government. The power to borrow and the fiscal powers to tax and spend should ideally be held in the same branch of government. It is the legislature, the direct representative of the people, that holds both powers in most countries. Legislatures are responsible for creating a sound legal framework that provides clear lines of authority and ensures transparency. As explained later in this handbook, the laws should grant the executive sufficient flexibility to manage debt effectively, establish clear performance benchmarks and require timely audited reports that legislators can use to prepare budgets and evaluate the debt management operations.

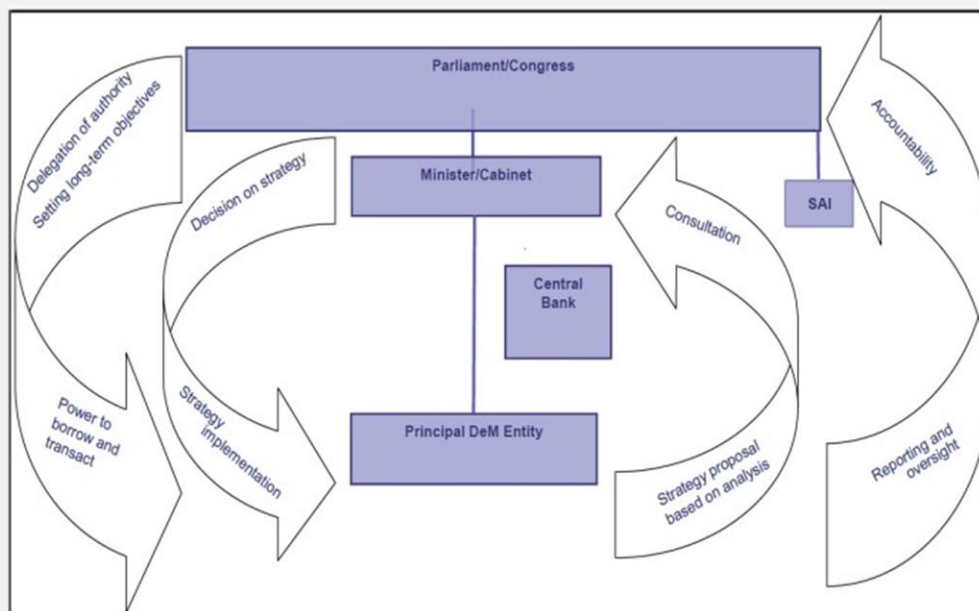


Figure 1. Participants in Public Debt Management

Some external agencies look for help in monitoring PDM at a domestic level. This can be a first stage to understand and enhance the SAI's role.

Executive branch. Executive branch may include MoF; DMO; treasurer and controller; budget, planning, and economic ministries or departments; resource mobilisation units; and programme execution units.

In order to provide greater flexibility and effectiveness in PDM, legislatures frequently delegate or assign the power to borrow to a key ministry or agency in the executive branch, such as the MoF. Generally, organisational arrangements for PDM would require the officials in debt management units within the MoF who perform important front-, middle- and back-office functions. Also, central banks would be included if they act as fiscal agents of the MoF, making payments and receiving funds in local and foreign currencies. In many countries, it may also have to include the following officials and units:

- the treasurer, who is responsible for cash management;
- the controller, who is responsible for public debt accounting;
- the officials in budget, planning, and economic ministries, who are responsible for integrating debt information into budget and macroeconomic plans;
- the resource mobilisation units that take the lead in seeking specific funds for their investment projects; and
- the multiple programme execution units that are responsible for using borrowed funds.

Lender institutions (domestic and external; bilateral and multilateral). DeM activities are determined by the funding sources. Most advanced countries with access to developed financial markets rely on government securities issuance as their principal funding source. Specific institutions, such as primary dealers, make commitments to participate actively in government auctions in exchange for privileged access to government debt instruments. Active secondary markets in government securities provide useful information to debt managers and SAs that can be used to manage risks inherent in public debt.

In contrast, low-income countries without access to financial markets depend mostly on long-term concessional loans obtained from several bilateral and multilateral institutions, which impose specific conditions. There is no active secondary market in concessional loans, and the inter-agency coordination activities can be challenging. Finally, there is also a group of mostly middle-income countries that have the capacity to issue securities and obtain loans. The challenges of managing and auditing debt performance in each group would be different.

1.3 The Role of the Debt Management Office

A DMO is the dedicated government entity whose primary responsibility is to execute the DeM strategy through borrowing, derivatives and other debt-related transactions. In addition, it is responsible for undertaking analysis and providing advice to decision-makers on potential DeM strategies and the cost–risk trade-offs associated with alternative approaches.

Other functions found within a DMO are cash balance management, guarantee management, and on-lending. Essential support functions, such as cash flow forecasts, legal advice, human resource management, IT and internal audit, are sometimes integrated parts of the DMO, while in other cases—particularly when the DMO is located within the ministry of finance—these support functions are located outside the DMO, serving other units as well as the DMO. *Figure 2* depicts the functions of the DMO.

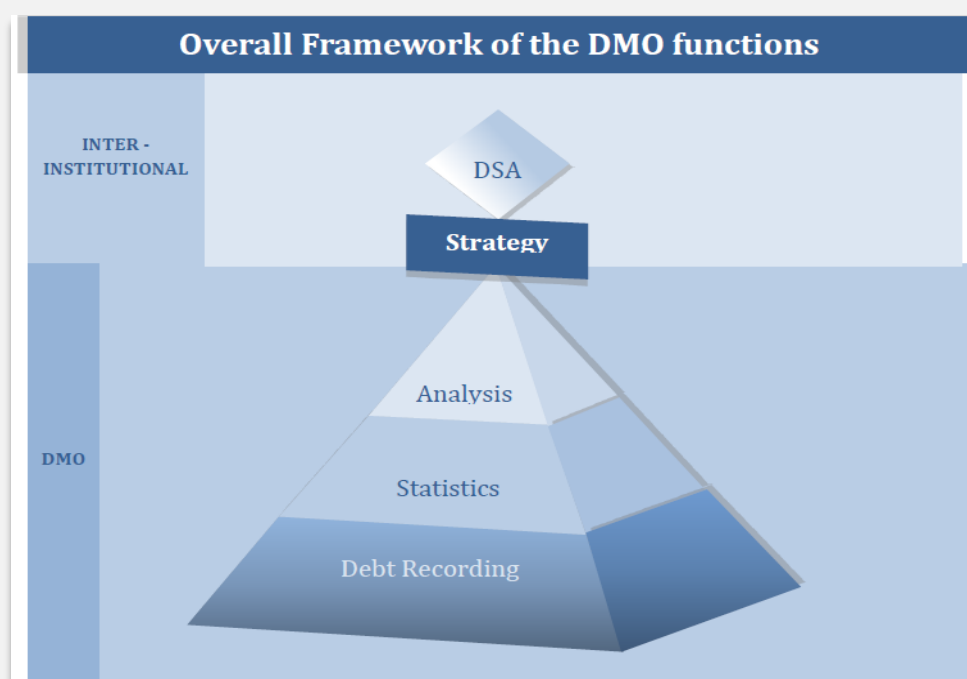


Figure 2. DMO Functions

Source: The DMFAS Programme from UNCTAD

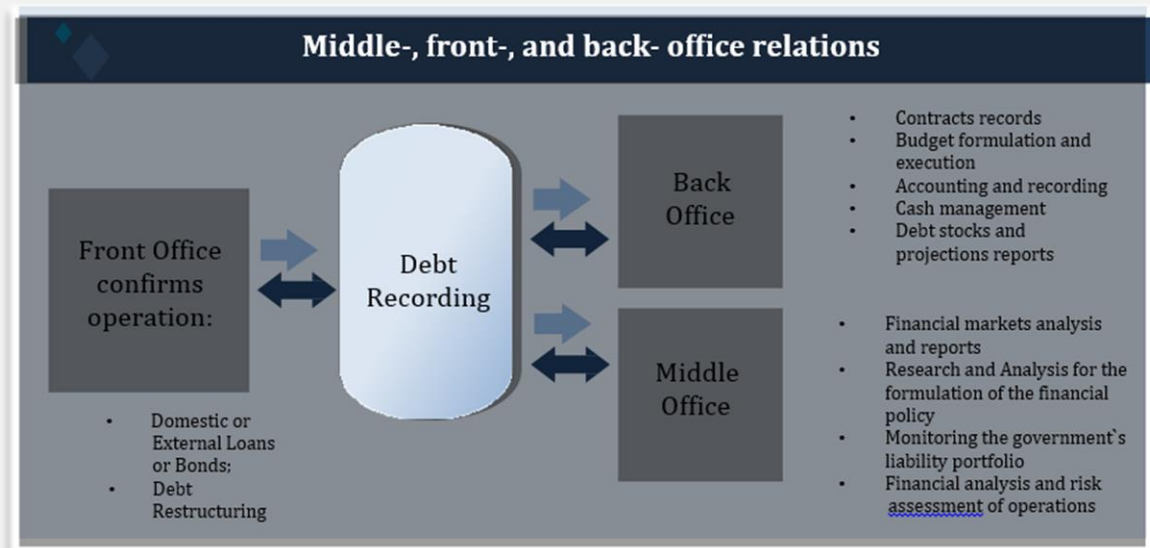
The sovereign DeM functions of a fully-fledged DMO can be as set out below:

- Take part in all borrowing and credit arrangements and other DeM activities, both foreign and domestic.
- Prepare and propose an MTDS with annual updates on a rolling basis, both to be approved by the Cabinet.
- Prepare annual borrowing plans based on the strategy, including auction calendars, taking into account government borrowing requirements and cash flow forecasts.
- Stay in regular contact with the investor base for government securities and other market participants to, *inter alia*, inform on the financing needs and borrowing plans of central government.
- Maintain relations with credit rating agencies.
- Take responsibility for the official debt recording system and assure that the debt data are always accurate, timely and complete.
- Send withdrawal requests to the creditors and keep track of all disbursements.
- Check that the disbursements are undertaken in accordance with the original disbursement plan, and, if not, raise this issue with the designated project management unit. (See also below re: disbursement schedule.)
- Assure that all interest payments, payments under derivative contracts and repayments are made on the due dates.
- Regularly prepare a debt statistical bulletin (or its equivalent) that provides information on central government's debt portfolio (by creditor, residency classification, instrument, currency, interest rate basis and residual maturity), debt flows (principal and interest payments), debt ratios and indicators, and basic risk measures of the debt portfolio.
- Prepare an annual report to Parliament providing details of government DeM activities, evaluation of outcomes against stated DeM objectives, the chosen DeM strategy and the rationale behind it, and compliance of the DeM activities with this strategy.
- As part of the annual budget preparation, prepare debt service forecasts based on both present and forecasted debt, and include some sensitivity analysis on how this forecast will change due to currency and interest rate movements.
- During budget preparation, comment on the size of the planned budget deficit (if any) and whether it can be financed by borrowing in the domestic market and/or in external markets without excessive cost, and how much the domestic debt market can absorb without any detrimental crowding out of the private sector.
- Keep the central bank regularly informed about planned and undertaken borrowings and DeM activities.
- Store all original loan contracts and debt administration records in a safe place.
- Contribute to the minimisation of operational risks in DeM activities.



The functions of the DMO can be further classified, in general terms, according to front (negotiation), middle (analysis) and back (recording and reporting). *Figure 3* depicts the relationships amongst these three offices comprising the DMO.

Figure 3. DMO Units and Functions



The DMO keeps all loan transaction data in its debt recording system, including the original disbursement schedule for each project loan. Each time a loan is disbursed, the disbursement is entered into the system. By regularly checking the disbursement schedule against the actual disbursements, the DMO can easily check whether the loans have been disbursed as planned and, if not, raise this issue with the project management unit. An added benefit of this communication is that the DMO will get a better grip on any delays in completing the project and, consequently, on the time for disbursements, which will help the DMO to prepare reasonably reliable forecasts on the total debt service as part of the yearly budget preparation. Project management, however, is not a DeM activity and should not be part of the DMO's mandate.

The DMO, particularly in developing countries, is commonly established as a government unit or department within the MoF. Other countries, e.g., Germany, Hungary, Nigeria, Portugal and Sweden, have set up the DMO as a separate government agency.

A third option is to set up the DMO in the central bank. Amongst countries that have opted for this solution are Denmark and India. The advantage of this arrangement is that knowledge of most aspects of financial markets is retained centrally within a single authority. The disadvantage is that the central bank's involvement in domestic DeM may generate a market perception that DeM benefits from inside information on the future path of interest rates. This was the main reason why the United Kingdom shifted domestic DeM from the Bank of England to the United Kingdom DMO in 1998, and why India has decided to transfer the federal DeM function from the Reserve Bank of India to a separate Indian DMO. To have the DMO within the central bank might also make it more difficult to separate DeM and monetary policy objectives and accountabilities.

In terms of organisation, normally the DMO has three departments, namely front, middle, and back office, with their respective functions:

The front office is responsible for funding transactions, relations with investors, underwriters and banks, through loans and security issues including external loans and debt securities negotiations and domestic government debt auctions, and in this process seeks the most efficient funding cost versus risk factors. The front office implements the strategy and manages the portfolio against a benchmark. In some countries, the cash management is the DMO's responsibility, and the front office has an active role in this, with the middle office providing the necessary feedback.

The middle office is responsible for analysis and advice on the debt management strategy, which will enable the senior management to choose the suitable strategy. It also monitors the front office performance, designing limits on deviations from benchmarks, as well as implementing risk controls. The middle office also provides information and participates in the implementation of the sustainability analysis on regular basis, and within this context, undertakes consistency analysis of the debt variables with the real economy variables. The middle office fixes the prices that must be paid for guarantees as well as the margins to be charged for on-lending operations. In some countries, the cash management is the DMO's responsibility, and the middle office takes care of this in coordination with the front office.

The back office is responsible for debt registration, and handles transactions confirmations, settlements and payments, and also maintains records of all debt contracts, disbursements, payments, debt restructuring, on-lending, issued guarantees, settlement of transactions, etc. The back office has to implement security for payments instructions and settlements. The back office is also responsible for budgetary projections of disbursement and debt service in addition to being responsible for the implementation and maintenance of the Debt Management System and its integration with the integrated financial management information system (IFMIS).

Realising that DeM should be treated as a separate public policy, there is today increased consensus that consolidating DeM functions into one DMO is one of the most important steps that can be taken to improve the overall quality of DeM, and pave the way for a more strategic management. This set-up will likely increase efficiency, transparency and accountability, as well as result in better cost and risk trade-offs in the debt portfolio and a more professional approach to the markets.

It is common, though, to still find a fragmented managerial structure, particularly in developing countries. In some countries, one entity is responsible for external concessionary borrowing, a second entity for external borrowing on commercial terms, a third entity for domestic borrowing from institutional investors, a fourth entity for borrowing from the domestic retail sector, and so forth. This organisational model can work reasonably well when the main DeM objective is to raise the needed funds with little priority assigned to managing the risks in the overall debt portfolio. However, when the focus on government DeM is more on cost and risk trade-offs in the debt portfolio, promotion of domestic debt market development, strategy development, accountability, and coordination with fiscal and monetary policies, this fragmented managerial structure becomes increasingly difficult and inefficient.

1.4 The Role of Supreme Audit Institutions

Supreme audit institutions or the SAIs have a central role to play in exercising independent external oversight on PDM in a country and in publicly reporting on the results of their audit. SAIs carry out financial, performance and compliance audits on the subject matter of PDM. The audits carried out and the reporting procedures depend on the legal mandate and reporting procedures established in the country. In the subsequent chapters of this handbook we will be exploring how SAIs can exercise their mandate and audit different topics related to PDM.

1.5 Importance of Sound Public Debt Management

PDM is important because public debt is often the largest financial liability of the government and a major contributor to the country's external debt. Given the nature and size of public debt in most countries, it is clearly important to lower its costs. High debt leads generally to high debt service liability. Generally, high debt service liabilities become a cause of poverty, inequality and unemployment in highly indebted countries, because debt settlements in the face of slow economic growth do not leave enough money to finance the needed expenditures on health, education and general welfare. In this context, the issues related to DeM become particularly important.

Every government faces policy choices concerning DeM 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 of PDM. On many of these issues, there is increasing convergence on what are considered prudent PDM practices that can also reduce vulnerability to contagion and financial shocks. These practices include

- The recognition of the benefits of clear objectives for DeM;
- 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 risks, including clear delegation of responsibilities and associated accountabilities amongst government agencies involved in DeM.

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. 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 DeM with sound policies for managing contingent liabilities can make countries less susceptible to contagion and financial risk. Further, a debt portfolio that is robust against shocks places the government in a better position to effectively manage financial crises.⁹

⁹ The World Bank-IMF Revised Guidelines for Public Debt Management (2014).

1.6 Best Practices in Public Debt Management

The following documents are known for presenting sound practice in government DeM:

- The UNCTAD Principles on Promoting Responsible Sovereign Lending and Borrowing (2012)
- The joint World Bank/IMF Guidelines for Public Debt Management (2001, revised in 2014)
- The World Bank Debt Management Performance Assessment (DeMPA) tool (2007, revised in 2015)

The UN principles is a set of generic statements not only covering the borrowing responsibilities but also the lenders. The DeMPA tool is a methodology for assessing debt management performance through a comprehensive set of indicators spanning the full range of government debt management functions. The guidelines were elaborated by the World Bank and the IMF to establish a framework of best practices for DeM.

1.6.1 Principles on Promoting Responsible Sovereign Lending and Borrowing (UNCTAD Principles)

Compared with the joint World Bank/IMF Guidelines and the DeMPA tool, the UNCTAD Principles also include principles of responsible sovereign lending. These principles are set out below:

Responsibilities of lenders

- 1) Lenders should recognize that government officials involved in sovereign lending and borrowing transactions are responsible to the State and its citizens for protecting public interest.
- 2) Lenders have a responsibility to provide information to their sovereign customers to assist borrowers in making informed credit decisions.
- 3) Lenders have a responsibility to determine, to the best of their ability, whether the financing has been appropriately authorized and whether the resulting credit agreements are valid and enforceable under relevant jurisdictions.
- 4) A lender is responsible to make a realistic assessment of the sovereign borrower's capacity to service a loan, based on the best available information and following objective and agreed technical rules on due diligence and national accounts.
- 5) Lenders financing a project in the debtor country have a responsibility to perform their own ex-ante investigation into the likely effects of the project, including its financial, operational, civil, social, cultural, and environmental implications. When applicable, they are also responsible for post-disbursement monitoring of the effects. This responsibility should be proportional to the technical expertise of the lender and the amount of funds to be lent.
- 6) All lenders have a duty to comply with United Nations sanctions imposed against a government regime. In circumstances where a sovereign is manifestly unable to service its debts, all lenders have a duty to behave in good faith and with cooperative spirit to reach a consensual rearrangement of those obligations. Creditors should seek a speedy and orderly resolution to the problem.

Responsibilities of sovereign borrowers

- 1) Governments are agents of the State and, as such, when they contract debt obligations, they have a responsibility to protect the interests of their citizens. Where applicable, borrowers should also consider the responsibility of lenders' agents toward their organizations.
- 2) A sovereign debt contract is a binding obligation and should be honored. Exceptional cases nonetheless can arise. A state of economic necessity can prevent the borrower's full and/or timely repayment. Also, a competent judicial authority may rule that circumstances giving rise to a legal defense have occurred. When changes to the original contractual conditions of the loan are unavoidable due to the borrower's economic state, principles 7 and 15 should be followed.
- 3) The process for obtaining financing and assuming sovereign debt obligations and liabilities should be transparent. Governments have a responsibility to put in place and implement a comprehensive legal framework that clearly defines procedures, responsibilities and accountabilities. They should particularly put in place arrangements to ensure the proper approval and oversight of official borrowings and other forms of financing, including guarantees made by State-related entities.
- 4) Relevant terms and conditions of a financing agreement should be disclosed by the sovereign borrower, be universally available, and be freely accessible in a timely manner through online means to all stakeholders, including citizens. Sovereign debtors have a responsibility to disclose complete and accurate information on their economic and financial situation that conforms to standardized reporting requirements and is relevant to their debt situation. Governments should respond openly to requests for related information from relevant parties. Legal restrictions to disclosing information should be based on evident public interest and be used reasonably.
- 5) In the context of project financing, sovereign borrowers have a responsibility to conduct a thorough ex-ante investigation into the financial, operational, civil, social, cultural and environmental implications of the project and its funding. Borrowers should make public the results of the project evaluation studies.
- 6) Debtors should design and implement a debt sustainability and management strategy and ensure that their DeM is adequate. Debtor countries have a responsibility to put in place effective monitoring systems, including at the sub-national level, that also capture contingent liabilities.
- 7) Governments have a responsibility to weigh costs and benefits when seeking sovereign loans. They should seek a sovereign loan if it would permit additional public or private investment, with a prospective social return at least equal to the likely interest rate.
- 8) If a restructuring of sovereign debt obligations becomes unavoidable, it should be undertaken promptly, efficiently and fairly.



1.6.2 Guidelines for public debt management (IMF/World Bank)

The following are the guidelines for PDM recommended by the World Bank and the IMF.

- 1) The main objective of PDM 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.
- 2) DeM should encompass the main financial obligations over which the central government exercises control.
- 3) DeM should be anchored on sound macroeconomic and financial sector policies to ensure that the level and rate of growth in public debt are sustainable.
- 4) Debt managers, fiscal and monetary authorities, and financial sector regulators should share an understanding of the objectives of DeM, fiscal, monetary, and financial sector policies given the interconnections and interdependencies between their respective policy instruments.
- 5) In principle, there should be a separation of DeM policy and monetary policy objectives and accountabilities.
- 6) Debt managers and fiscal and monetary authorities should share information on the government's current and future cash flow needs.
- 7) 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 DeM operations, and should inform the government on a timely basis.
- 8) There should be public disclosure of the allocation of responsibilities amongst the MoF, the central bank, or a separate DeM agency, for DeM policy advice and for undertaking primary debt issues, secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities.
- 9) The objectives for DeM should be clearly defined and publicly disclosed, and the measures of cost and risk that are adopted should be explained.
- 10) Materially important aspects of DeM operations should be publicly disclosed.
- 11) Easy public access to the documentation describing the legal basis for DeM policy and operations should be ensured.
- 12) The legislature and the public should be informed, through an annual report, about the context in which DeM operates and the outcomes of the DeM strategy.
- 13) The debt manager or government should regularly publish information on the outstanding stock and composition of its debt liabilities, financial assets and contingent liabilities, where they exist, including their currency denomination, maturity, and interest rate structure.
- 14) If DeM operations include derivatives, the rationale for their use should be disclosed, and aggregate statistics on the derivatives portfolio should be published periodically, conforming to recognised accounting practices. The government is likely to benefit from a function within the DMO that deals regularly with the main debt stakeholders and produces investor-friendly reports with debt statistics and other relevant information.

- 15) DeM activities should be audited annually by SAIs. Information technology (IT) systems and risk control procedures should also be subject to external audits. In addition, there should be regular internal audits of DeM activities, and of systems and control procedures.
- 16) The legal framework should clarify the authority to borrow and to issue new debt, to hold assets for cash management purposes, and to undertake other transactions on the government's behalf where applicable.
- 17) The organisational framework for DeM should be clearly specified and the mandates and roles well-articulated.
- 18) 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.
- 19) Staff involved in DeM should be subject to a code-of-conduct and conflict-of-interest guidelines regarding the management of their personal financial affairs.
- 20) DeM activities should be supported by an accurate and comprehensive management information system with proper safeguards.
- 21) Sound business recovery procedures should be in place to mitigate the risk that DeM activities might be severely disrupted by theft, fire, natural disasters, social unrest, or acts of terrorism.
- 22) Debt managers should ensure that they have received appropriate legal advice and that the transactions they undertake incorporate sound legal features.
- 23) Collective action clauses in bond contracts could help to achieve a more orderly and efficient resolution, in case of a sovereign debt restructuring.
- 24) 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.
- 25) 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.
- 26) Debt managers should carefully assess and manage the risks associated with foreign currency, and with short-term and floating rate debt.
- 27) 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.
- 28) 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.
- 29) To assess risk, debt managers should regularly conduct stress tests (apply new values of existing variables to the debt portfolio and evaluate new scenarios, in general the new values related with interest rates, exchange rates and/or market prices) 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.

- 30) Debt managers who seek to manage the debt portfolio actively to profit from expected movements in interest rates and exchange rates that differ from those implicit in current market prices should be aware of the risks involved and be accountable for their actions.
- 31) 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 the potential consequences of derivatives contracts (e.g., in case of a downgrade of a market counterparty).
- 32) Credit risk should be assessed and managed consistently by debt and cash managers.
- 33) Settlement risk should be controlled by having clearly documented settlement procedures and responsibilities and limiting as appropriate the size of payments flowing through any one settlement bank.
- 34) 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.
- 35) In order to minimise cost and risk over the medium to long run, debt managers should take adequate measures to develop an efficient government securities market.
- 36) 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.
- 37) DeM 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.
- 38) Governments and central banks should promote the development of resilient secondary markets that can function effectively under a wide range of market conditions.
- 39) The systems used to settle and clear financial market transactions involving government securities should reflect sound practices.

1.6.3 DeMPA tool (World Bank)

The Debt Management Performance Assessment (DeMPA) tool is a methodology for assessing DeM performance through a comprehensive set of indicators spanning the full range of government DeM functions. It highlights strengths and weaknesses in government DeM practices through a scoring methodology, which facilitates the monitoring of progress over time in achieving government DeM objectives in a manner consistent with international sound practice.

The performance indicators encompass the complete spectrum of government DeM operations, as well as the overall environment in which these operations are conducted. For each indicator, the DeMPA tool contains detailed background information and rationale for the inclusion of the indicators. Although the DeMPA does not specify recommendations for reforms or capacity and institution-building needs, the performance indicators do stipulate a minimum level (the 'C' score) that should be met under all conditions. Consequently, an assessment showing that the DeMPA minimum requirements are not met indicates an area requiring reform or capacity building or both. The criteria for the highest score (the 'A' score) are considered sound practice.

The DeM performance indicators (DPIs) to be assessed using the DeMPA tool are as follows:

1) Governance and strategy development

- DPI-1 Legal Framework
- DPI-2 Managerial Structure
- DPI-3 Debt Management Strategy
- DPI-4 Debt Reporting and Evaluation
- DPI-5 Audit

2) Coordination with macroeconomic policies

- DPI-6 Coordination with Fiscal Policy
- DPI-7 Coordination with Monetary Policy

3) Borrowing and related financing activities

- DPI-8 Domestic Borrowing
- DPI-9 External Borrowing
- DPI-10 Loan Guarantees, On-lending and Derivatives
- DPI-11 Cash Flow Forecasting and Cash Balance Management

4) Debt recording and operational risk management

- DPI-12 Debt Administration and Data Security
- DPI-13 Segregation of Duties, Staff Capacity, and Business Continuity
- DPI-14 Debt and Debt-Related Records

1.7 Audit of Public Debt Management

1.7.1 Importance of SAI's legal mandate

As earlier explained, in most countries, the legislature has the borrowing power of the central government, sometimes delegated to the executive with periodic monitoring. Given the technical nature of PDM and the fact that many potentially significant debt-related transactions are not public, the members of the legislature and the public must rely on the independent audits performed by the SAI to determine whether the executive's public debt reports show the true condition of public debt and its most relevant details.

The SAI's legal framework is a major contributor to defining audit objectives, scope and reporting obligations. Some SAIs may have the legal authority to conduct compliance audits of budget resources but not financial and performance audits of public debt. A clear and explicit legal mandate helps SAIs to gain access to debt officials and records. Thus, ISSAI 100 made the recommendations set out below.

An SAI will exercise its public-sector audit function within a specific constitutional arrangement and by virtue of its office and mandate, which ensure sufficient independence and power of discretion in performing its duties. The mandate of an SAI may define its general responsibilities in the field of public sector auditing and provide further prescriptions concerning the audits and other engagements to be performed.

"The head of the SAI should seek to obtain a suitable legal mandate that comprises the following criteria:

- A mandate to carry out performance auditing on the economy, efficiency, and effectiveness of government programmes and entities;

- Freedom to select what to audit, when to audit, and how to audit, conclude, and report on findings;
- Freedom to place the audit results in the public domain;
- Access to all information needed to conduct the audit; and
- Freedom to decide whom to recruit.”

Here, ‘Legal Mandates to Carry out Audits’ shows the law in Uganda that grants authority to its Auditor General to conduct performance audits, and the law that grants authority to the Comptroller General of the United States to perform a financial audit of the government’s financial statements.



Legal Mandates to Carry Out Audits

Uganda – *Legal Authority for Performance Audits, National Audit Act of 2008, Section 21: random value for money audits in accordance with Article 163(3)(b) of the Constitution and report as he or she considers necessary...organizations and local government councils...*

United States of America – *Legal Authority for Financial Audit, USC, Title 31:*

‘The Secretary of the Treasury, in coordination with the Director of the Office of Management and Budget, shall annually prepare and submit to the President and the Congress an audited financial statement...’

‘The financial statement of the U.S. shall reflect the overall financial position, including assets and liabilities, and results of operations of the executive branch of the United States Government...’

‘The Comptroller General of the United States shall audit the financial statement ...Not later than 31 March 1998 and each year thereafter...’

‘The financial statements shall be prepared annually’ ... ‘in accordance with the form and content requirements set forth by the Director of the Office of Management and Budget’

Source: various



SAls play an accountability role in public debt reporting and management. Regular financial audits of public debt help to make public debt managers accountable for their public debt actions. Also, financial audit reports may enhance the transparency of public debt issues, depending on their ability to communicate clearly key debt information to legislators and informed citizens.

Performance audits contribute to enhancing the effectiveness, efficiency and economy of debt management, and strengthen internal control to prevent fraud in public debt activities.

According to the ISSAI Standards and guidelines for performance auditing (ISSAI 300), SAls may consider auditing public debt issues where they have the ability to provide new knowledge, insights and perspective. SAls' audit reports should have the potential to influence policy-makers and thereby make a significant contribution to improving PDM. For example, SAls could enhance transparency and accountability in public debt by examining current reporting practices; strengthen internal control in public debt programmes to reduce risks of fraud and corruption by providing recommendations to improve existing systems and procedures; and modernise public debt's legal framework by examining best practices identified in ISSAI's public debt audit guidelines. Whether SAls can select these and other topics for audit depends critically on their legal mandate.

1.7.2 Strategic planning and audit of public debt management

Based on its mandate, resources available, situation in the country and expectations from stakeholders, an SAI may include audit of PDM in its strategic and operational plans. In order to actually conduct such audits in accordance with applicable ISSAIs, it is necessary for an SAI to ensure that it has the following:

- A defined audit methodology (financial, performance and compliance) as applied to the subject matter of PDM;
- Professional staff competent in both the respective audit methodology and the subject matter of public debt audit;
- A mechanism for identifying PDM areas to be included in its strategic portfolio of audits and that it includes these topics in its annual audit plans; and
- A quality assurance mechanism to provide independent assurance on the quality of the audit conducted.

The box here shows an extract from an SAI strategic plan that identifies a significant amount of debt rollover as a potential public debt audit topic.



Example of an SAI Institutional Plan¹⁰

United States Government Accountability Office (GAO) Strategic Plan 2014–2019

Since fiscal year 2007, debt held by the public has more than doubled as a share of GDP from about 35 percent to 70 percent at the end of fiscal year 2012. While the deficit has fallen considerably since 2009, cumulative debt held by the public continues to grow. Debt held by the public reached \$12.0 trillion, or 72 percent of GDP, at the end of fiscal year 2013—the largest as a share of GDP since 1950.

The United States is not alone in facing high debt levels. Many advanced countries are facing similar challenges and will need to continue to undertake unprecedented fiscal efforts to stabilize debt ratios at unsustainable levels. In GAO's Baseline Extended and Alternative simulations, debt held by the public continues to grow as a share of GDP in the coming decades. High debt—even if stable—retards potential growth, constrains the scope for future discretionary policy, and leaves economies exposed to further market shocks. Although sharp increases in public debt have not led to high interest rates in most countries, including the United States, lower rates are unlikely to persist indefinitely, in part because they reflect relaxed monetary conditions that cannot continue forever. As the economy strengthens, and interest rates rise, the large amount of the debt held by the public that the Department of the Treasury (Treasury) must roll over becomes costly. Treasury has been taking steps to increase the average maturity of its outstanding debt securities, not in response to any one interest rate environment, but consistent with its goal of funding the government at the lowest cost over time.

Helping the Congress and the federal government better understand and manage the challenges will require that GAO take a crosscutting approach in its work that incorporates the full and complex array of economic and social factors. Therefore, GAO plans to conduct long-term fiscal simulations and analyses of federal deficits, federal debt levels, and the state and local sectors.

1.7.3 Applying ISSAIs in audit of public debt management

As mentioned above, SAIs may apply compliance, financial or performance audit ISSAIs to ensure high-quality audits of public debt management.

- A compliance audit could focus on whether particular public debt management subjects comply with authorities identified as criteria. Compliance audit of public debt is performed by assessing whether the DeM process, borrowing and lending activities, public debt financial transactions and information are, in all material respects, in compliance with the authorities that govern the audited entity. These authorities may include rules, laws and regulations of sovereign DeM, debt budgetary resolutions, fiscal and monetary policy, established codes, loan agreements or the general principles governing sound public sector financial DeM and the conduct of public debt officials.
- A financial audit focuses on determining whether the government's financial information with respect to sovereign debt is presented in accordance with the applicable financial reporting and debt regulatory framework. This is accomplished by obtaining sufficient and appropriate audit evidence to enable the SAIs to express an opinion on whether the financial information with respect to sovereign debt is free from material misstatement due to fraud or error.

¹⁰ Full document available at: <http://www.gao.gov/assets/670/661281.pdf>

- A performance audit focuses on whether borrowers and lenders, sovereign DeM and other related parties are performing in accordance with the principles of economy, efficiency and effectiveness, and whether there is room for improvement. Performance is examined against suitable criteria, such as national laws and regulations governing sovereign debt activities, policies and procedures set by DeM officials, and best recommended practices by organisations carrying out similar activities or having similar programmes, policies and procedures set by DeM officials, loan and contract agreements. The causes of deviations from those criteria and other problems are analysed. The aim is to answer key audit questions and to provide recommendations for improvement.

There are standardised audit steps that SAIs must take when they plan audits of public debt. Therefore, SAIs should follow adopted planning procedures and incorporate to the extent possible INTOSAI standards ISSAI 100 (Fundamental Principles on Public-Sector Auditing) and ISSAI 200 (Financial Audit Principles), ISSAI 400 (Compliance Audit Principles) and ISSAI 300 (Performance Audit Principles), respectively. In addition, ISSAI 5400-5499¹¹ (Guidelines on audit of public debt) provide specific guidance to plan and conduct audits of public debt.

SAIs may have specific obligations related to the timing and scope of audits of public debt. In that case, SAIs should perform those audits following the rules they are subject to. Alternatively, SAIs may choose to select amongst the topics discussed in this handbook. Given the technical complexity of public debt issues, the availability of sufficient technical knowledge and audit experience within the SAI are important factors in the selection of the first performance audit of public debt. Hence, it is not recommended that a single audit cover all topics. The best audit approach is to prepare and execute methodically a multi-year audit plan that allows the SAIs to build their technical expertise over time and examine all the important PDM areas in a cost-effective and efficient way.

Where relevant or necessary, and in line with the SAI's mandate and the applicable legislation, the auditor may use the work of internal auditors, other auditors or experts. The auditor's procedures should provide a sufficient basis for using the work of others, and in all cases the auditor should obtain evidence of other auditors' or experts' competence and independence and the quality of the work performed. However, the SAI has sole responsibility for any audit opinion or report it might produce on the subject matter; that responsibility is not reduced by its use of work done by other parties.

The objectives of internal audit are different from those of external audit. However, both internal and external audit promote good governance through contributions to transparency and accountability for the use of public resources, as well as economy, efficiency and effectiveness in public administration. This offers opportunities for coordination and cooperation and the possibility of eliminating duplication of effort.

Where an internal audit office/unit (IAO/U) exists and performs audit of public debt-related operations, it is good practice for the internal and external auditors to understand and discuss their respective audit scope, methodology and audit plan, and to agree on the exchange of and access to audit reports. This will facilitate the auditor's work, preclude redundancies and conflicts and ensure improved effectiveness of the audit process. The SAIs' reliance on the work performed by the IAO/U is, however, influenced by the competence, objectivity and nature of work performed by the IAO/U.

¹¹ Currently, these ISSAIs are subject to harmonisation and alignment with ISSAI 100 and will be revised as a guidance instead of an ISSAI.

Chapter 2 Auditing the Legal Framework for Public Debt Management

This chapter helps SAIs to identify the elements, recognise the importance of the legal framework for PDM and relate the topic with possible audit types, criteria, sources of evidence, and sample audit questions and findings.

2.1 Legal Framework for Public Debt Management

The legal framework for PDM comprises both primary legislation (laws enacted with approval of the legislature) and secondary or delegated legislation (executive orders, decrees, ordinances and so forth determined by the executive branch of government).

The decision to include certain provisions in the primary legislation is guided by constitutional principles and the desired role of Parliament or Congress in sovereign DeM. Including them in the primary legislation gives those provisions prominence and prevents ad hoc and frequent changes.

In line with sound practice, the primary legislation should include:

- Clear authorisation by Parliament to the executive branch of government (normally to the Cabinet or Council of Ministers, or directly to the Minister of Finance) to approve borrowings on behalf of the sovereign;
- Specified borrowing purposes;
- Clear DeM objectives or goals;
- Requirement to develop a DeM strategy and annual borrowing plans; and
- Mandatory annual reporting to Parliament of borrowings and other DeM activities, covering the evaluation of outcomes against stated objectives and the determined strategy.

The secondary legislation commonly includes:

- Clear authorisation within the executive branch of government for a dedicated DeM unit (sometimes called the debt management office or for short, DMO) to undertake borrowing- and debt-related transactions within a certain framework; and
- Other issues, such as borrowing procedures and other regulations that do not need to be determined by Parliament, following the principle of subsidiarity.

SAIs can examine whether the legal framework has established the necessary governance, audit, reporting and accountability processes. Essentially, the following elements should be present in the legal framework for PDM and should be explicitly, clearly and consistently defined:

- Delegation of sovereign powers by Parliament to the executive;
- Remit (responsibility, sphere of activity) of the DMO;
- Borrowing purposes;¹²
- DeM goals and objectives;

¹² It is common to find in the primary legislation that the government can issue guarantees only when it is deemed to be in the public interest. In this regard, public interest could be defined as ‘promotion of economic development, including development of disadvantaged regions, promotion of small and medium-sized enterprises (SMEs), and correction of market failure where creditworthy borrowers may not have access to credit markets, and strengthening of the national security’.

- Requirement for a DeM strategy and annual borrowing plans; and
- Debt reporting obligations.

From the perspective of a performance audit, SAIs can also examine to what extent these elements have been observed in the context of sound PDM.

2.1.1 Delegation by Parliament or Congress to the executive

In most countries, the ultimate power to borrow on behalf of the central government rests with Parliament or Congress. This power stems from legislature's constitutional power to approve central government tax and spending measures. The first level of delegation of the borrowing power therefore would be from Parliament or Congress to the executive branch (for example, to the president, to the cabinet or council of ministers, or directly to the minister of finance).

To keep some control of the borrowings and debt level, Parliament normally restricts the delegated borrowing power to specified purposes or sets a limit on the annual net borrowing or the outstanding debt. Another common control is the retention by Parliament or Congress of the power to ratify loan agreements that are classified as treaties (i.e., international agreements concluded between two sovereigns or between a sovereign and another subject of international law, such as the World Bank). This requirement is normally included in the constitution. Other foreign loans, such as bond issues in the international capital markets and loans directly from foreign banks, do not normally require the approval of the Parliament or Congress.

In their examination of the delegation clauses in the legal framework, SAIs should determine whether the terms of delegation are explicit and clear, both for internal control and for due diligence purposes.

Commonly, the Cabinet or the minister of finance delegates at least some of its borrowing powers received from Parliament to the DMO, e.g., to approve the bids received in auction of government debt securities. The SAIs should examine the existence of those delegated powers and determine if they are adequate to allow the DMO to manage public debt properly.

The next box below illustrates some of the main laws related to borrowing and debt powers in the Philippines.



Philippines' Constitutional and Legal Provisions Related to Public Debt Management

The power to issue debt is one that has been traditionally shared by the President with the legislature, the Monetary Board (MB) of the Bangko Sentral ng Pilipinas and other agencies of government. The power vested in the President to borrow has been extended to the Secretary of Finance by various Republic Acts (RAs) issued by Congress.

Article VI, Section 24, of the 1987 Constitution of the Philippines assigns to Congress the exclusive power to enact 'bills authorizing increase of the public debt'.

Article VII, Section 20, authorizes the President to 'contract or guarantee foreign loans on behalf of the Republic of the Philippines (ROP) with the prior concurrence of the MB, and subject to such limitations as may be provided by law'.

Article XII, Section 21 states: 'Foreign loans may only be incurred in accordance with law and the regulation of the monetary authority. Information on foreign loans obtained or guaranteed by the Government shall be made available to the public'.

RA No. 245 (12 June 1948), Section 1, authorizes the Secretary of Finance, with the approval of the President, after consultation with the MB, to borrow from time to time on the credit of the ROP such sum as may be necessary, and to issue therefor evidences of indebtedness of the Philippine Government.

RA No. 4860 (8 August 1966) authorizes the President of the Philippines to, among others, obtain such foreign loans and credits, or to incur such foreign indebtedness, as may be necessary to finance approved economic development purposes or projects, and to guarantee, in behalf of the ROP, foreign loans obtained or bonds issued by corporations owned or controlled by the Government of the Philippines for economic development purposes including those incurred for purposes of re-lending to the private sector.

Source: various

2.1.2 Borrowing purposes

Legal limits to borrowing purposes are a safeguard against borrowing for speculative investments and borrowing to finance expenditures that have not been included in the annual budget or approved by legislature. If the executive branch of the government could borrow to finance expenditures not approved by legislature, the legislative budget process would be ineffective, since the legislature would be forced in the future to take fiscal actions to pay interest and service a public debt obligation that was contracted without its direct or indirect approval. Another negative effect of such a framework would be that Parliament or Congress would lack the opportunity to scrutinise those expenditures and weigh them against other priorities, which is one of its core functions in a democracy.

SAIs should examine whether the legal framework clearly and explicitly defines the borrowing purposes. Examples of common borrowing purposes specified in legislation are to finance budget deficits; fill short-term cash gaps; refinance maturing debt; finance investment projects approved by the legislature; honour government payment obligations under outstanding guarantees; add to foreign currency reserves; support monetary policy objectives (for example, to drain excess liquidity from the domestic market); and eliminate effects caused by natural environmental disasters.

The bulk of borrowing is normally to cover the budget deficit. It is important to clarify that this deficit should have been approved by the legislature. Other borrowing requirements are to build

up and sustain a liquidity buffer to be determined by the minister, to finance any on-lending, and in general for any other purposes determined by Parliament.

2.1.3 Debt management goals and objectives

The legal definition of public debt goals and objectives helps to formulate a PDM strategy. SAIs should examine whether the country's legal framework contains public debt goals and objectives that are logically consistent and mutually supporting. SAIs should also assess whether the goals are clear, stable and robust enough to serve as an anchor for the DeM strategies.

This is a key provision. It is important to carefully consider the drafting of the DeM goals, because these serve as both the anchor for the DeM strategy development and the benchmark for the evaluation process. To serve these purposes, the goals must be clear and long-term, and have certain robustness. In addition, they must be achievable, directly related to DeM activities and specific. An example of a goal that does not meet these criteria is a general statement that DeM activities shall promote economic growth. This is impossible to evaluate. Another example is a statement that DeM activities will ensure that the debt is kept at a sustainable level. But the government's debt level is driven much more by loose fiscal policy and contingent liabilities than the structure of the debt.

SAIs may use DeM goals and objectives as criteria in their performance audits of PDM. In particular, SAIs can assess whether goals are translated into a DeM strategy that defines how the goals will be achieved. Discussion of how goals were achieved pursuing specific strategies should be important elements of public debt reports.

2.1.4 Debt management strategy

A DeM strategy should cover all central government existing debt and projected borrowing, including from the central bank, with a minimum of three years' scope (thus it needs to be updated annually). In particular, a DeM strategy identifies how cost and risk characteristics vary with the changes of composition of the debt portfolio. The content of the strategy and risk indicators will vary from country to country, depending on the stage of economic development, the sources of funding, the breadth and depth of the domestic debt market, and the transactions used to manage central government debt.

The DeM strategy document preferably includes the following:

- Description of the market risks being managed (currency, interest rate and refinancing or rollover risks) and historical context for the debt portfolio;
- Description of the future environment for DeM, including fiscal and debt projections, assumptions about interest and exchange rates, and constraints on portfolio choice, including those relating to market development and the implementation of monetary policy;
- Description of the analysis undertaken to support the recommended DeM strategy, clarifying the assumptions used and limitations of the analysis; and
- Recommended strategy and its rationale.

SAIs should examine whether the requirement for a debt management strategy has increasingly been adopted in DeM legislation. This would include a requirement to publish a DeM strategy. A DeM strategy is usually approved by the executive (either by the minister of finance or the council of ministers) as a formal document. It provides the strategic path in the medium term to meet the high-level DeM objectives, including ensuring its consistency with macroeconomic policies.

2.1.5 Debt reporting

A debt statistical bulletin (or its equivalent) covering domestic and external central government debt, loan guarantees and debt-related operations is essential for ensuring transparency of the debt portfolio and of outstanding loan guarantees, and it is vital for the investors in the central government debt securities.

This bulletin could be in the form of either regular MoF or central bank publications or as statistical tables produced by a bureau of statistics. The bulletin should be published at least annually (preferably quarterly or semi-annually) and provide information on central government debt stocks (by creditor, residency classification, instrument, currency, interest rate basis, original and residual maturity); debt flows (principal and interest payments); debt ratios and indicators; and basic risk measures of the debt portfolio.

SAIs should examine whether clear and explicit legal reporting requirements exist to hold public debt managers accountable to senior debt officials, ministers and boards (if any) charged with governance, and to the legislature. SAIs should also verify whether there are other legal reporting requirements such as financial statements, budgetary reports and public debt reports, and whether the reports are subject to external audits.

2.2 Auditing Legal Framework for Public Debt Management

Examination of the legal framework is a required audit procedure for understanding the environment in which public debt operations are executed. Therefore, when performing a financial, compliance or performance audit of public debt, SAIs need to have a good understanding of the legal framework for PDM.

In general, carrying out performance or compliance audits allows SAIs a better overview of the legal framework, including the governance, reporting and accountability processes. When auditing the legal framework for PDM, however, SAIs can perform a performance audit, looking at whether decisions by the legislature or the executive are efficiently and effectively prepared and implemented. On the other hand, compliance audits look at whether debt-related activities, financial transactions and information comply with the authorities which govern the audited entity. Examples of compliance audits for PDM are presented in the succeeding chapters, which deal with DeM and other related activities.

2.2.1 Performance audit of legal framework

A performance audit of the legal framework for PDM can examine whether the elements discussed are present in the legal framework for public debt and are explicitly, clearly and consistently defined. Examples of audit objectives for a performance audit could include the following:

- To determine whether a clear and explicit legal framework is in place;
- To determine whether the legal framework for DeM provides clear and explicit delegation of powers for DeM; and
- To determine whether debt reporting obligations are explicitly stated in existing legislation for PDM.

The first three audit objectives would fall under a systems-oriented audit approach to performance auditing where the SAI focuses on the examination of the proper functioning of DeM systems. The last two objectives could be a results-based approach, which assesses whether the DeM objectives have been achieved as intended.

Performance audit promotes transparency by affording the legislature, taxpayers and other sources of finance; those targeted by government policies; and the media an insight into the management and outcomes of different government activities.

The following could be examples of audit objectives relating to performance audit of the legal framework for PDM:

- To evaluate the adequacy of the legal framework for public debt for an effective debt management; and
- To determine to what extent the legal framework provides mechanisms to determine the maximum limit for the external debt the government can borrow.

2.3 Representative Audit Questions on the Legal Framework for Public Debt Management

The following are examples of audit questions that could be used to support the audit objectives for performance audits of the legal framework for PDM:¹³

Audit objective: To evaluate the adequacy of the legal framework for PDM for an effective DeM

- 1) Do laws exist that clearly define the purposes for which borrowing can be undertaken, for example, to finance the budget deficit as approved by the Parliament?
- 2) Do laws exist that clearly define DeM goals and objectives to be achieved?
- 3) Which sections or clauses in the legislation cover the following?
 - a. specified borrowing purposes;
 - b. clear debt management goals;
 - c. requirement to develop a medium-term debt management strategy (MTDS); and
 - d. annual mandatory reporting to Parliament and Congress covering DeM activities and, where applicable, loan guarantees issued.
- 4) Do laws exist that provide for mandatory reporting at least annually by the executive to Parliament on the public debt outcomes against stated goals and the determined DeM strategy?
- 5) Are there overlaps or inconsistencies between different sets of legislation relating to public debt?
- 6) Does the legal framework provide for an effective sanction regime for non-compliance?

Audit objective: To determine whether the legal framework for DeM provides clear and explicit delegation of powers for DeM

- 1) Is there a clear legal authorisation by Parliament to the executive (the cabinet or council of ministers, the president or directly to the minister of finance) to approve borrowings and guarantees on behalf of the central government? If so, which legislation provides authorisation, and what are the relevant sections or clauses?
- 2) Who signs the loan documents and other necessary documents related to a particular

¹³ DeMPA 2015.pdf (relating to questions 3 to 6 only); see

<http://documents1.worldbank.org/curated/en/305821468190742099/pdf/96671-WP-DEMPA-2015-Box391446B-PUBLIC.pdf>.

borrowing? Which legislation provides this authorisation, and what are the relevant sections or clauses?

- 3) Is there a clear legal authorisation from the executive branch of government to a DMO to undertake borrowing and debt-related transactions and to issue loan guarantees on behalf of the central government? If so, which legislation provides authorisation, and what are the relevant sections or clauses?
- 4) Has the DMO carried out its reporting duties on a timely basis such that there have not been significant negative financial consequences due to passiveness?

The SAI shall analyse the collected information and ensure that the audit findings are put in perspective and respond to the audit objective(s) and audit questions.¹⁴

2.4 Audit Criteria for Auditing Legal Framework

In conducting an audit of legal framework for PDM, an SAI may use the indicators identified by the DeMPA tool as sources of criteria to examine the robustness of the framework. The DeMPA tool's DeM Performance Indicator 1 (DPI-1) is used to assess the existence, coverage and content of the legal framework on authorisation to borrow and undertake other DeM activities and to issue loan guarantees.

An SAI may also use UNCTAD principles as sources of audit criteria. The following UNCTAD principles may be considered.

UNCTAD Principle 3 on Due Authorization requires that lenders make sure the public counterparty has the proper authorisation to enter into a credit agreement and the agreement is valid and enforceable under its jurisdiction. Lenders should be acquainted with the law and ensure that they are dealing with duly authorised entities. Should the lender determine that these conditions do not exist, it should not conclude the agreement.

UNCTAD Principle 10 on Transparency provides, 'The process for obtaining and assuming sovereign debt obligations and liabilities should be transparent. It is the responsibility of the governments to put in place and implement a comprehensive legal framework that clearly defines procedures, responsibilities and accountabilities. They should particularly put in place arrangements to ensure the proper approval and oversight of official borrowings and other forms of financing, including guarantees made by State-related entities'.

UNCTAD Principle 13 on Adequate Management and Monitoring provides, *inter alia*:

- 'Debtors should design and implement a debt sustainability and management strategy and to ensure that their debt management is adequate'.
- 'A DMO should be involved in both the pre- and post-disbursement aspects of any credit for which the State or one of its instrumentalities will be liable. DMO should have sound processes in place to develop an effective medium-term debt strategy (including procedures to review the strategy periodically, to monitor emerging risks, to monitor interest costs, to take into account other liabilities that could impact on the government budgetary position, to monitor performance and to report clearly and transparently the outcome of the strategy)'.

¹⁴ Para. 112, ISSAI 3000 – Standard for Performance Auditing

2.5 Sources of Evidence in Auditing Legal Framework

An SAI may use the following sources to collect evidence or understand the legal framework:

- 1) All primary legislation, which should be available on the websites of the government, MoF, DMO or central bank. Ideally these documents should be requested formally to the audited authorities.

- a. Country constitution

Sets out the fundamental principles or established precedents according to which a state is governed. In the Philippines' Constitution, for example, *the President is given the authority to contract or guarantee foreign loans on behalf of the Republic of the Philippines xxx.*

- b. Budget law

Regulates the arrangements governing the adoption, records, management, preparation, development and execution of the budget of the Republic.¹⁵ In the Philippines, for example, the budget law called *General Appropriations Act*, which is enacted on a fiscal-year basis, includes provision for debt servicing.

- c. Public finance law and/or related regulations

Refers to legislation and regulations relating to the financial activities of government or public sector organisations. These govern the funding and administration of specific governmental activities including the sale and purchase of various types of bonds.

- d. Public credit/debt law and/or related regulation

In some countries, refers to legislation and regulations relating to public credit and DeM operations and institutional organisation, including functions and missions of the DMO.

- 2) All secondary legislation which should be available on the websites of the government, MoF, DMO or central bank.

- a. Regulation of the domestic capital market, if any

Rules and regulations related to the functioning of the domestic debt market, including the definition of institutional actors—for example, sovereigns, registry entities, market makers, and institutional and individual investors—and their rights and obligations.

- 3) Other related documents, such as Debt Management Strategy

¹⁵ www1.worldbank.org/.../BudgetLaws/Montenegro%20Budget%20Law%20Official%20Law

2.6 Illustrations of Audit Findings on Legal Framework

This section contains some of the audit findings related to the audit of a legal framework. These audits were conducted by SAIs participating in IDI's Auditing of Lending and Borrowing Frameworks (ALBF) programme during 2015 and 2016. The main findings from the ALBF programme can be traced to two levels of maturity of the PDM system, namely, situations where there is no legal framework or there is vague legislation related to PDM. In addition, we also provided some examples of audit findings that could provide more guidance for SAIs in performing audits of the legal framework for PDM.

1) Unclear legislation on allocated authority

In cases where legislation was not clear in the allocated authority, it was found that the front office, middle office and back office activities were uncoordinated and spread across a number of entities in inefficiencies in the DeM function. This impacted the availability of information to departments and specifically to the SAIs.

2) Inadequate legal framework for PDM

Without an adequate legal framework, the PDM strategy or borrowing plans were not developed, resulting in high borrowing cost and less optimal covenants for the countries. This goes hand in hand with lack of operational manuals and policies (institutional arrangements) on how on lending and borrowing activities are carried out, resulting in high debt levels and high exposure to certain currencies in relation to economic conditions.

3) Deficient borrowing plans

SAIs found that where legislation requires a borrowing strategy and borrowing plans to be developed, these documents did not contain key parameters, such as borrowing limits and currency mix. Monitoring of the strategy and plans was also found to be non-existent, resulting in different outcomes than envisaged. SAIs have noted also that this related to the lack of skills and staff trained in the public debt offices to fulfil the requirements of the strategies, and to the lack of review.

4) Inconsistent definition of public debt

The participants in the ALBF programme have also highlighted the definition of public debt as a contentious issue. The public debt definition is not consistent as some countries exclude the debt of state-owned enterprises where guarantees have been offered and nowadays the standard position is that the guarantees should be included as part of the indirect public debt.

In reviewing the results of the audits, it was observed that good legislation regarding public debt forms the building blocks for a good DMO, as it supports all the other principles related to good PDM. SAIs that conducted the audits on other initial topics found that their root causes relate mainly to the legislative framework and as a result had to narrow the scope of work or change the objectives of the audit.



Chapter 3 Auditing Institutional and Organisational Arrangements for Public Debt Management

This chapter helps SAIs to identify the elements; recognise the importance of the institutional and organisational arrangements in PDM; and relate the topic with possible audit types, criteria, sources of evidence, and sample audit questions and findings.

3.1 Institutional and Organisational Arrangements in Public Debt Management

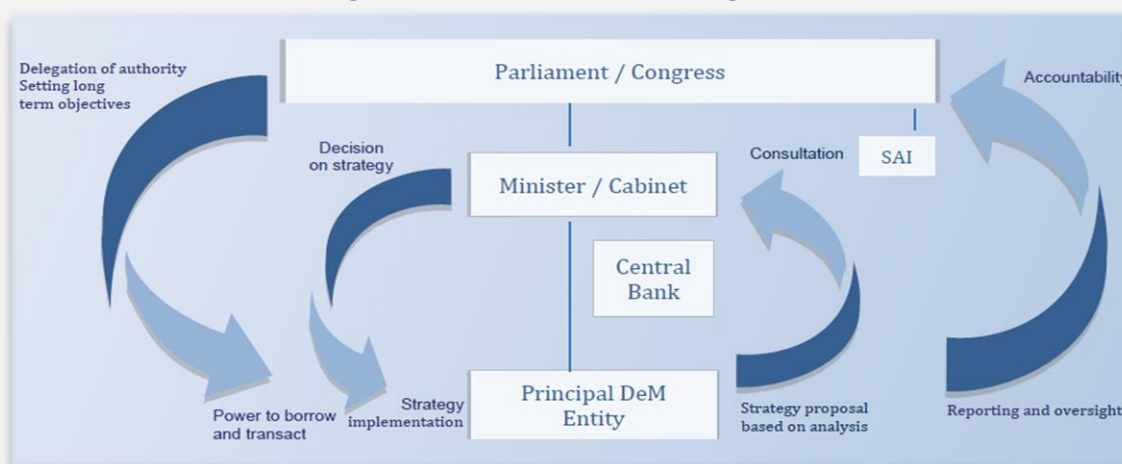
3.1.1 Institutional arrangements

Institutional arrangements are the policies, systems and processes that organisations use to legislate, plan and manage their activities efficiently and to effectively coordinate with others in order to fulfil their mandate.

DeM should be anchored in sound macroeconomic and financial sector policies to ensure that the level and rate of growth in public debt are sustainable. Comprehensive organisational and institutional arrangements should promote public policy elements of DeM, in terms of facilitating coordination with monetary and fiscal policy, the development of the domestic debt market, the control of the possible impact of risky debt structures on the budget and the monitoring of possible contingent liabilities. Debt managers, fiscal and monetary authorities, and financial sector regulators should share an understanding of the objectives of DeM, fiscal, monetary and financial sector policies given the interconnections and interdependencies between their respective policy instruments, as shown in *Figure 4*.

In principle, there should be a separation of DeM 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 DeM operations, and inform the government on a timely basis.¹⁶

Figure 4. DeM Institutional Arrangements



Source: The World Bank Debt Management Performance Assessment (DeMPA Tool)

If an institutional arrangement for PDM is to be effective, it needs to be well-specified, with well-articulated mandates and roles, and a robust system of checks and balances in place. A robust system of checks and balances exists, for example, when there is a clear division of the responsibilities at the political level (Parliament and Congress, the president, the cabinet and council of ministers, and the MoF) that sets DeM objectives and strategy and the technical-level (DMO) entities responsible for implementing the DeM strategy.

Realising that DeM should be treated as a separate public policy, there is today increased consensus that consolidating DeM functions into one DMO is one of the most important steps that can be taken to improve the overall quality of DeM, and pave the way for a more strategic management. In addition to forming a DMO, there is also consensus that DeM should be steered by long-term objectives and a medium-term strategy determined within the political sphere in addition to the analysis of the short-term requirements. This set-up could increase efficiency, transparency and accountability, as well as result in better cost and risk trade-offs in the debt portfolio and a more professional approach to the markets.

In many developing countries, the government can issue debt securities in both the domestic market and foreign markets, as well as negotiate loans offered by multilateral institutions and countries. Because each major funding source would normally have a different set of borrowing instruments, conditionality and procedures, there is an additional requirement to coordinate multiple executive and operating functions to guarantee the effectiveness and efficiency of DeM programmes. For SAls in these countries, it is important to examine the effectiveness of debt coordination activities amongst the ministry of finance, the central bank, resource mobilisation agencies and loan execution programmes.

3.1.2 Organisational structure

The location and organisational structure of a government DMO will vary amongst countries. Differences in organisational arrangements between developing and developed countries are in part caused by differences in their financing sources. Developed countries borrow mostly from debt markets by issuing marketable debt securities in their local currency. In contrast, developing countries have multiple sources of financing, such as loans from bilateral and multilateral lenders in domestic and foreign currencies, as well as issuances of debt securities in the domestic market—at least in the shorter end of that market—and occasionally also in the international capital markets.

Regarding the structure of the DMO, there are basically two models: The DMO can be established as a separate agency or corporate body outside the MoF (e.g., the DMOs in Germany, Hungary, Nigeria, Portugal and Sweden), or it can be established within the ministry of finance (e.g., the DMOs in Argentina, Brazil, France, Kenya and New Zealand). The experience of advanced Organisation for Economic Co-operation and Development (OECD) countries suggests that transitioning and emerging market economies may have to carry out a very careful analysis of the type of institutional arrangements best suited for their PDM. This is because they tend to have an economic situation in which public policy elements are vital (e.g., development of domestic debt markets, coordination with monetary policy, impact of debt servicing on the budget, control of contingent liabilities) and they lack an independent policy.

A third option is to set up the DMO in the central bank. Amongst countries that have opted for this solution are Denmark and India. The advantage of this arrangement is that retention of knowledge of most aspects of financial markets is centralised within a single authority. The disadvantage is that the central bank's involvement in domestic DeM may generate a market perception that DeM benefits from inside information on the future path of interest rates. This was the main reason why the United Kingdom shifted domestic DeM from the Bank of England to the UK

DMO in 1998, and why India has decided to transfer the federal DeM function from the Reserve Bank of India to a separate Indian DMO. To have the DMO within the central bank might also make it more difficult to separate DeM and monetary policy objectives and accountabilities.

The fourth option is to continue with a fragmented organisational set-up where government borrowing and other DeM functions are spread out amongst different entities, such as MoF, ministry of planning and investments, central bank, treasury, external resources department, accountant general's office, and others. The cases of Bolivia, Ecuador, Vietnam and Indonesia are examples of fragmented structures.

The main disadvantages of a fragmented organisational structure are that it can easily lead to 'turf protection', insufficient and untimely information-sharing between the units, unclear responsibilities and problems with consistently implementing the MTDS. This, in turn, can easily lead to incomplete and unreliable debt information provided to policymakers, which can lead to over-borrowing, causing higher borrowing cost, or under-borrowing, which would make the government vulnerable to a liquidity crisis.

Countries may have to weigh the relative costs and benefits of the different organisational arrangements, and eventually arrive at some kind of trade-off. In order to increase efficiency, create adequate segregation of duties and achieve a basic level of internal control, a DMO is normally organised in separate front-, middle- and back-office functions, as illustrated in *Figure 5*.

Figure 5. Organisation of a DMO



However, in smaller countries with limited staff resources, it is common to find a simpler organisation with only two sections: one combined front- and middle-office section, and one separate back-office section.

The front office obtains the financial resources required to meet the government's financial needs. Its activities include:

- Regular communication and consultation with domestic and external sources of finances;
- Loan negotiation; and
- Issuance of government debt securities and contracting bank debt.

The middle office is responsible for:

- Conducting research and analysis (including input to DSA);
- Providing advice on the DeM strategy with a view to managing risk prudently;
- Developing operational procedures to reduce the operational risks; and
- Ensuring that DeM transactions carried out by the front office are within stipulated risk limits.

The back office centralises all the operations of government debt related to:

- Registration and validation of debt data;
- Settlement of borrowing transactions;
- Monitoring and control of disbursements;¹⁷
- Execution and management of debt service operations; and
- Production of statistical information.

The segregation of duties between the front and back offices is standard in the financial industry. The main advantages with this model are that it will, if properly adhered to, reduce the operational risks and substantially improve the likelihood that the data are always timely and correct. What is important for SAIs to examine is whether there is effective segregation of duties and an effective functioning system of internal control.

3.2 Auditing Institutional and Organisational Arrangements in Public Debt Management

After obtaining the legal information on public debt and organisational arrangements of PDM, SAIs should determine if the arrangements are efficient and create adequate segregation of duties.

In general, the organisational arrangement should provide for the effective and efficient execution of front-, middle- and back-office functions. SAIs should obtain the procedures manual and the specific organisational chart that identifies each of the units and their respective roles and responsibilities. In terms of institutional arrangements, SAIs can assess the coordination mechanisms amongst the DeM units with fiscal and monetary policy-makers with regards to regular

¹⁷ By regularly checking the disbursement schedule against the actual disbursements, the DMO can easily check whether the loans are disbursed as planned and, if not, raise this issue with the project management unit. An added benefit of this communication is that the DMO will get a better grip on any delays in completing the project and consequently on the time for disbursements, which will help the DMO to prepare reasonably reliable forecasts on the total debt service as part of the yearly budget preparation. Project management, however, is not a DeM activity and should not be part of the DMO's mandate.

information sharing of accurate and timely forecasts of central government debt servicing and DSA as well as on current and future debt transactions and the central government's cash flows and other debt-related transactions.

In order to develop criteria to assess specific institutional and organisational arrangements in their respective countries, SAIs may use the ISSAI publications produced by the Working Group on Public Debt, the best practices described in the publications on DeM and the UNCTAD Principles on Promoting Responsible Sovereign Lending and Borrowing.

At the beginning of an audit of the public debt institutional and organisational arrangements, SAIs must decide which components of internal controls to examine and the depth of analysis of each component.¹⁸ Examples of relevant audits of the institutional and organisational arrangements for PDM that use compliance and performance audit methods are described below.

3.2.1 Compliance audit of institutional and organisational arrangements

A compliance audit of the institutional and organisational arrangements for PDM can examine whether the existing organisational structure and institutional arrangements are in accordance with the legal framework for PDM.

The following are samples of audit objectives that may be used by SAIs in their compliance audit of the organisational arrangements for DeM:

- To determine whether the existing DeM policies, systems and processes conform with those defined in the legal framework; and
- To determine whether the current organisational arrangements of the DMO are in accordance with the existing legal framework and management operational guidelines.

3.2.2 Performance audit of institutional and organisational arrangements

A performance audit of the institutional and organisational arrangements for PDM can examine whether the organisational framework is well articulated, practical, and ensures a fair and transparent PDM and whether the institutional and organisational arrangements for PDM are efficient and promote an effective system of checks and balances.

Examples of audit objectives that SAIs could use in their performance audit of the institutional and organisational arrangements for DeM are:

- To determine whether the mandates, roles and responsibilities of the different DeM units are well articulated;
- To determine whether the division of roles and responsibilities promotes an effective system of checks and balances; for example, is there a clear division of responsibilities amongst the legislature (Parliament), the executive (president or council of ministers) and the technical level (DMO); and
- To determine whether the institutional and organisational arrangements for PDM are efficient and promote an effective system of internal control, with robust checks and balances.

¹⁸ ISSAI 5410, Guidance for Planning and Conducting an Audit of Internal Controls of Public Debt, allows the auditor to define the scope of debt audits by using the five components of a system of internal control: control environment, risk assessment, control activities, information and communication, and monitoring.

3.3 Representative Audit Questions on Institutional and Organisational Arrangements for Public Debt Management

The following are examples of audit questions that could be used to support the audit objectives for performance audits of institutional and organisational arrangements.

Audit objective: To determine whether the mandates, roles and responsibilities of the different DeM units are well articulated

- 1) Are institutional and organisational arrangements for PDM properly documented, i.e., is there a comprehensive procedures manual?
- 2) Are the arrangements clearly specified and well-articulated?
- 3) Are the mandates, roles and responsibilities of the different DeM units defined in the primary or secondary legislation?

Audit objective: To determine whether the division of roles and responsibilities promotes an effective system of checks and balances

- 1) Is there a clear division of roles and responsibilities amongst the DeM units at the technical level? Which units perform the functions defined in the 'front', 'middle' and 'back' offices of a DMO?
- 2) Is there a principal DeM unit that ensures proper coordination and exchange of information amongst the various units?

Audit objective: To determine whether the institutional and organisational arrangements for PDM are efficient and promote an effective system of internal control, with robust checks and balances

Organisational (staff capacity and human resource management)

- 1) Does the principal DeM entity (or entities) have professional staff members? How long have the staff members been employed in their current DeM activities? What are the qualifications of staff members?¹⁹
- 2) Do staff members have individual training and development plans? If so, how are these plans formulated, and what are the policies and budget for training?
- 3) Do staff members have code of conduct guidelines, conflict of interest guidelines or both? If so, who is responsible for preparing and monitoring these guidelines? Are staff trained on these guidelines?
- 4) Have previous audits identified instances of non-compliance, fraud, unlawful acts, unethical behaviour, management bias, etc.?

Institutional (coordination with fiscal and monetary policymakers)

- 1) Is there clear separation amongst monetary and fiscal operations and DeM transactions?

¹⁹ DeMPA Methodology, <http://documents1.worldbank.org/curated/en/305821468190742099/pdf/96671-WP-DEMPA-2015-Box391446B-PUBLIC.pdf>.

- 2) Is there a regular and timely exchange of debt-related information (forecasts of debt servicing and DSA) between the fiscal policymakers and the DMO?
- 3) Is there regular information sharing between the DMO and the central bank on monetary policy operations, regarding current and future debt transactions and cash flows?

3.4 Audit Criteria for Auditing Institutional and Organisational Arrangements

In general, institutional and organisational arrangements should establish clear roles and responsibilities to ensure the effective execution of DeM activities, provide well-defined coordinating mechanisms and establish a transparent and accountable system of checks and balances. Lack of coordination in countries with several DeM units is a risk factor that can contribute to the provision of incomplete and unreliable debt information to policymakers. This condition can lead to over-borrowing, causing higher borrowing costs, or to making the government vulnerable to a liquidity crisis.

In terms of organisational arrangements, the DeMPA tool includes two DeM performance indicators (DPIs) that need to be assessed.

- 1) The managerial structure (DPI-2), which has two dimensions to be assessed:
 - a. The effectiveness of the managerial structure for central government borrowings and debt-related transactions and whether it includes a clear division between the political and execution levels; and
 - b. The effectiveness of the managerial structure for preparation and issuance of central government loan guarantees.
- 2) The Segregation of Duties, Staff Capacity, and Business Continuity (DPI-13), which has two dimensions to be assessed:
 - a. Segregation of duties for some key functions, as well as the presence of a risk monitoring and compliance function; and
 - b. Staff capacity and human resource management, to ensure that a sufficient number of DeM staff are employed and adequately trained, and that individual job descriptions have been prepared, amongst others.

In terms of institutional arrangements, the DeMPA tool includes two DPIs that need to be assessed.

- 1) The coordination with fiscal policy (DPI-6), which has two dimensions to be assessed:
 - a. Support of fiscal policymakers through provision of accurate and timely forecasts of central government debt servicing under different scenarios, to ensure that reasonably reliable and timely forecasts of debt servicing are provided during the yearly budget preparation process; and
 - b. Availability of key macro variables, an analysis of debt sustainability and the frequency with which it is undertaken, to ensure that these are shared with the DMO (or the DeM units in a fragmented structure).

- 2) The coordination with monetary policy (DPI-7), which has three dimensions to be assessed:
 - a. Clarity of separation between monetary policy operations and DeM transactions;
 - b. Coordination with the central bank through regular information sharing on current and future debt transactions and the central government's cash flows; and
 - c. Extent of the limit to direct access of financial resources from the central bank (monetary financing of government deficits).

UNCTAD Principle 13 on adequate management and monitoring provides, amongst others, that the establishment of an efficient DMO can address many DeM concerns relating to undisciplined practices with respect to the incurring of debt obligations by sovereign and other public sector borrowers. The DMO should be involved in both the pre- and post-disbursement aspects of any credit for which the State or one of its instruments will be liable. The DMO should have sound processes in place to develop an effective MTDS (including procedures to review the strategy periodically, to monitor emerging risks, to monitor interest costs, to take into account other liabilities that could impact on the government budgetary position, to monitor performance and to report clearly and transparently the outcome of the strategy).

3.5 Sources of Evidence in Auditing Institutional and Organisational Arrangements

SAIs may use the following documents in understanding the institutional and organisational arrangements on PDM. The following documents could be sourced from the DMO, the MoF or the central bank, where appropriate.

- 1) The organisational chart, operations manual and secondary legislation setting out the entities involved in DeM and the preparation and issuance of loan guarantees and their respective roles and responsibilities;
- 2) The agency agreement between the principal DeM entity and the central bank (if such an agreement exists); and
- 3) The documented and approved guarantee framework or government policy.

3.6 Illustrations of Audit Findings on Institutional and Organisational Arrangements

The findings related to institutional arrangements raised by the SAIs that conducted audits during the ALBF programme on this subject matter identified three root causes: (1) lack of segregation of duties, (2) lack of suitably qualified staff and (3) absence of policies and procedure manuals.

1) Lack of segregation of duties

SAIs found a lack of segregation of duties in the recommended front, middle and back office arrangements. This resulted in a lack of transparency in reporting, quality control and efficiency arrangements in the operations of the DMO. The informal nature of the arrangements resulted in lack of accountability in the functioning of the DMO. Specifically, when the DMO is housed internally in the MoF, staff often does DMO functions in addition to their normal responsibilities. This resulted in the SAIs not being able to verify reported

information and required authority for transactions that took place related to debt issue and servicing. On the other hand, the decentralised function of front, middle and back office often vested across a number of entities, resulting in lack of coordination between the DMO functions. Where officers were appointed to various positions, their job description did not speak to DMO functions and vaguely describes their role unrelated to that required to be performed by an officer in the DMO.

2) Lack of suitably qualified staff

In response to some of the findings raised by SAIs, accounting officers and heads of departments cited lack of qualified staff in the DMO as main reasons for findings raised. Specifically, with regards to debt analysis (middle office), recording, accounting (back office) and reporting (back office) were found to have problems of staff capacity. Another department where skills shortages were found was in IT, specifically, skills needed to maintain and administer the software used for the accounting and the reporting of public debt (DMFAS), for which good knowledge of Oracle is needed.

3) Absence of policies and procedures manuals

An absence of policies and procedures manuals was found, resulting in inconsistent practices regarding borrowing and on-lending, resulting in less than optimal conditions for the government. During borrowing negotiations, it was found that no risk assessment policies were in place, the decision regarding optimal borrowing conditions was primarily based on past experiences and the decision vested in one authority. This is due to operational procedures not being documented and standardised, which was further magnified by unclear job descriptions and unclear organigrams, resulting in the objective of DMO not being realised.

On the other hand, in a performance audit on borrowing activities, the preliminary survey revealed that there is a clear delineation of roles and responsibilities in an organisational structure approved by the competent authority. The registration functions are in charge of an area that hierarchically depends on the ministry of finance. Public debt registration is done through a system (e.g., DMFAS 6.1). For this purpose, there is a system coordination which is responsible for maintaining and updating the system. With regard to the personnel who perform the tasks and changes to the system, they were trained in different instances (especially when the change occurred to a more updated version) and the positions of directors and coordinators are occupied by 'career' personnel who were trained and updated in the office itself.



Chapter 4 Auditing Debt Management Strategy Development

This chapter helps SAIs to understand the importance of a country's development of a DeM strategy as an important part of public fiscal policy and to relate it to the possible audit types, criteria, sources of evidence and sample audit questions and findings.

4.1 Debt Management Strategy

A DeM strategy is a plan that the government intends to implement over the medium term to achieve a desired composition of the government debt portfolio, which captures the government's preferences with regard to the cost-risk trade-off. It operationalises the country authorities' DeM objectives—e.g., ensuring that the government's financing needs and payment obligations are met at the lowest possible cost consistent with a prudent degree of risk.²⁰

Although the strategy is commonly specified for the medium term²¹ (3 to 5 years), it should be subject to periodic review to assess whether its assumptions still hold in light of changed circumstances. Such a review would ideally be undertaken annually, preferably as part of the budget process. If the existing strategy is viewed as appropriate, the rationale for its continuation should be stated explicitly.

The scope of MTDS depends on the information available and on the existing institutional arrangements in a country. At a minimum, the scope should include the total (domestic and external) direct central government debt. The exact definition of the scope will depend on the degree to which the debt manager can influence the risk exposure of specific portfolios. The coverage of the MTDS could be gradually expanded as information becomes available and as institutional arrangements allow for a broader and more comprehensive strategy to be implemented.²²

The content of the strategy will vary from country to country, depending on the stage of development or DeM reform, the sources of funding and the transactions used to manage central government debt. Preferably, the strategy document should include the following:

- Description of the market risks being managed (currency, interest rate and refinancing or rollover risks) and historical context for the debt portfolio;
- Description of the future environment for DeM, including fiscal and debt projections, assumptions about interest and exchange rates, and constraints on portfolio choice, including those relating to market development and the implementation of monetary policy;
- Description of the analysis undertaken to support the recommended DeM strategy, clarifying the assumptions used and limitations of the analysis; and
- The recommended strategy and its rationale.

²⁰ World Bank and IMF (2009): Developing a Medium-Term Debt Management Strategy (MTDS)—Guidance Note for Country Authorities, p. 3.

²¹ If the time horizon is too short, e.g., the budget cycle, there is a risk that short-term expediency will dominate, turning the focus on short-term costs and away from risks that could materialise later.

²² World Bank and IMF (2009): Developing a Medium-Term Debt Management Strategy (MTDS)—Guidance Note for Country Authorities, p. 9.

To guide the borrowing decisions and other DeM operations, the strategy commonly includes parameters or strategic benchmarks. When those benchmarks have been determined, all borrowings should be within those limits, such as:

- Ratio of foreign currency debt to domestic debt;
- Currency composition of the foreign currency debt;
- Minimum average maturity of the debt;
- Maximum share of debt that can fall due during one and two budget years;
- Maximum ratio of short-term (up to one year) to long-term debt;
- Maximum ratio of floating rate to fixed rate debt; and
- Minimum average time to interest rate re-fixing.

For countries that have limited access to market-based debt instruments and rely mainly on external official concessional finance, these risk-based parameters may not be equally relevant. In such cases, the most relevant parameters for containing the risks to the debt portfolio will probably be currency composition, interest rate composition and amount of debt that must be refinanced over a particular time. As an interim step, it would be sufficient to express the strategy as guidelines to indicate the direction in which certain key indicators are expected to evolve (for example, a statement that ‘the amount of local currency debt maturing within 12 months shall be reduced’).

In some countries, the DMO has developed or has access to relevant tools for undertaking a quantitative assessment of the cost and risk of alternative strategies. Typically, such tools compare the cost of debt to the risk (as defined by the change in the cost) over a specific time horizon under different scenarios. Such tools allow the DMO to simulate the impact of various financing options, tracking the evolution of the key cost and risk indicators for each strategy tested.

In the absence of any specific quantitative tools for analysing alternative strategies, the DMO should consider what characteristics of debt or debt composition would mitigate key sources of volatility for the budget and consider the potential costs of achieving that debt composition. For example, if the country is exposed to external shocks and the real exchange rate is volatile or at risk of a downward trend, the DMO may want to avoid aggravating that by reducing external financing. This would allow the DMO to specify the preferred direction of specific risk indicators, such as increasing the share of domestic currency debt, or lengthening debt maturity.

DeM strategies cannot be developed in isolation. The outlook on key macro variables (real, monetary, external and fiscal) defines the environment in which the debt managers operate, and is essential for DeM strategy development. Against this background, it is common that the DMO closely coordinates with the macroeconomic unit in preparing the strategy.

Sound practice is to make the DeM strategy public once it has been approved. Transparency is essential in helping the markets to have a clear understanding of what the DeM’s activities’ aims are, which will make the borrowing more cost effective by reducing the risk premiums. In addition, dissemination of the strategy will in addition help the debt manager strengthen the relationship with creditors, investors and other key stakeholders (e.g., credit rating agencies) and facilitate an open dialogue on key factors influencing the choice and implementation of the strategy. This could help secure support for the chosen strategy and reduce investor uncertainty.

By adopting the DeM strategy, the authorities can make informed choices on how the government’s financing requirements should be met, while taking into account potential risks. Such a systemic approach ensures effective DeM and helps to reduce operational risk. If the government has chosen a strategy that turns out to be too risky or too costly, this will affect the budget outcome much more than any mispriced and/or badly timed DeM transaction.

In addition, and provided this is in line with the DeM objectives, the strategy can support efforts to develop the domestic debt market by facilitating a transparent and predictable strategy for domestic borrowing.

4.2 Auditing Debt Management Strategy in Public Debt Management

SAIs must understand the importance of evaluating the DeM strategy. Compliance and performance approaches are the most common types of audit to examine DeM strategy. If a country's legislation has some standards for developing a strategic plan to take on new debt, a compliance audit and performance audit could be carried out together.

SAIs can assess to what extent a country's debt and other strategic fiscal or monetary goals are supported by the DeM strategy. Therefore, SAIs can examine how the following aspects are defined by the DeM strategy:

- Exposure levels to foreign currency risk;
- Target debt maturity structure;
- The sensitivity of the government's budget to interest rate changes;
- The share of public debt that is indexed to inflation; and
- A plan for supporting development of the domestic debt market.

In assessing a DeM strategy, SAIs can evaluate to what extent DeM has followed a sequence of logical steps, such as those shown below, in formulating and implementing debt strategies:

- Identify the objectives for PDM and scope of the strategy;
- Identify and analyse the cost and risk of the existing debt;
- Identify and analyse potential funding sources, including their cost and risk characteristics;
- Identify baseline projections and risks in key policy areas—fiscal, monetary, external (exchange rate movement and anticipated balance of payments development) and market (projections for relevant yield curves);
- Review key longer-term structural factors;
- Assess and rank alternative strategies on the basis of the cost–risk trade-off;
- Review implications of candidate DeM strategies for fiscal and monetary policy authorities, and for market conditions; and
- Submit and secure agreement on the strategy.

SAIs should determine the frequency of debt strategy reviews to assess whether the assumptions that support the strategy still hold in light of changed circumstances. Such a review would ideally be undertaken annually, preferably as part of the budget process, and if the existing strategy is viewed as appropriate, the rationale for its continuation should be stated explicitly.



4.2.1 Compliance audit of the debt management strategy

A compliance audit must identify all legal arrangements and how they affect indebtedness. SAIs should examine whether the DeM strategy complies with the country's legislation for taking debt, the DeM strategy complies with the longer-term DeM objectives and the DeM strategy is in compliance with the international standards.

Planning audit procedures for a compliance audit of the DeM strategy involves designing procedures to respond to the identified risks of non-compliance with laws and regulations for public debt.²³

Common objectives for a compliance audit could be the following:

- To ascertain whether the DeM strategy complies with the requirements of the sovereign's legal framework on public debt;
- To determine whether the DeM strategy is consistent with the longer-term DeM objectives; and
- To ascertain whether the designed DeM strategy is in accordance with international best practices.

4.2.2 Performance audit of the debt management strategy

Conducting a performance audit to evaluate the results of a country's DeM strategy is not a simple task. SAIs must ensure that economy, efficiency and effectiveness of DeM involve other public policies and are within the SAI's mandate.

Sound practices in DeM are aimed at helping to manage the government's balance sheet risks and to reduce the economy's vulnerability to economic and financial shocks. Government debt managers, fiscal policy advisers and central bankers need a shared understanding of the objectives of DeM policy and of traditional macroeconomic policy instruments.

SAIs can determine whether the DMO had executed the DeM strategy as planned, how changes to assumptions and risks had been responded to in the DeM strategy, and how the DMO had performed in terms of the DeM strategy development, implementation and reporting on outcomes.

SAIs can consider the following objectives for a performance audit of the DeM strategy:

- To ascertain whether the DMO had efficiently performed its responsibilities and accountabilities relating to the DeM strategy development;
- To determine how efficiently the DMO had made changes to the DeM strategy in view of changes to assumptions and risks considered in the DeM strategy; and
- To determine whether the DeM strategy had been implemented as planned.

²³ <https://www.issai.org/pronouncements/issai-4000-compliance-audit-standard/>

4.3 Representative Audit Questions on the Debt Management Strategy

The following are potential audit questions related to the DeM strategy.

Audit objective: To ascertain whether the DMO had efficiently performed its responsibilities and accountabilities relating to the DeM strategy development

1) Did the DMO prepare an MTDS? If so:

- a. Who is responsible for producing the strategy, and what were their respective roles?
- b. How is the strategy produced? Does it follow good practice (e.g., the World Bank and IMF guidance on developing an MTDS)?
- c. What is the content of the strategy? Does it clearly state the desired objectives? Does it use appropriate risk indicators?
- d. Does the strategy follow special debt regulations or legal mandates?
- e. What analysis is undertaken in formulating the strategy?
- f. How is the analysis undertaken? Who is responsible for setting economic and budget parameters, and who is responsible for debt forecasts?
- g. Does the DMO consider a range of alternative strategies from a cost and risk perspective before finalising its strategy?
- h. Does the DMO consider what characteristics of debt or debt composition would mitigate key sources of volatility in the budget, and consider the potential costs of achieving that debt composition?
- i. Are the risks embedded in contingent liabilities taken into account, and how are these risks assessed?

2) Is the central bank consulted in formulating the strategy? Is it consistent with the central bank's monetary policy implementation? Is the debt strategy approved by a senior policy-making authority? Is the strategy made publicly available? If so, when was it published, and in what format?

Audit objective: To determine whether the DeM strategy had been implemented as planned

- 1) Has the DMO followed the strategies planned in the DeM strategy?
- 2) Are the strategies responsive to existing conditions?
- 3) Are expected results achieved?

- 4) Are there changes to the DeM strategy? What are the bases for the changes, and are they documented?
- 5) How often is the strategy reviewed and updated?
- 6) Is a report on the outcomes of the strategy prepared and submitted to the legislature and concerned authorities?

4.4 Audit Criteria for Debt Management Strategy

According to the UNCTAD Principle 13, the DMO should have sound processes in place to develop an effective MTDS, including procedures to review the strategy periodically, to monitor emerging risks, to monitor interest costs, to take into account other liabilities that could impact on the government's budgetary position, to monitor performance and to report clearly and transparently the outcome of the strategy. Furthermore, all debt contracted should be in line with the DeM objectives and strategy of the sovereign.

The DeMPA tool DPI-3 also highlights the importance of the DeM strategy and assesses whether the strategy document meets certain quality requirements, whether the government has a robust decision-making process and whether the documents are publicly available.

4.5 Sources of Evidence in Auditing Debt Management Strategy for Public Debt Management

SAIs should obtain sufficient evidence to determine if the DMOs have a formal DeM strategy in place and a process for its formulation, implementation and reporting.

The following are some supporting documentation which would be useful in the audit and can be obtained from the DMO:

- Most recent DeM strategy;
- Defined process of strategy formulation and approval and related documentation;
- Documents providing the statistics and bases for the DeM strategy;
- Documents supporting any change to the DeM strategy;
- Monitoring reports of DeM strategy implementation; and
- Reports on the outcomes of the DeM strategy.

4.6 Illustrations of Audit Findings on Debt Management Strategy

Within the framework of the program, SAIs that conducted public debt strategy reviews in some countries were able to assess whether the models and estimates used by the manager were accurate in generating the changes proposed by debt agencies.

This section contains some findings related to the DeM strategy.

1) Insufficient DeM strategy

SAIs found that in some cases where borrowing strategies were established, they were insufficient; i.e., there were no parameters or they were not followed at all. The lack of strategy resulted in unfavourable borrowings and shortages in cash on hand, resulting in higher borrowing costs.

2) Absence of requirement for DeM strategy in legislation

A requirement in legislation for the development of a DeM strategy to establish the responsibility and accountability for its development, publication, periodic review and updating, and reporting on the related outcomes could be highlighted in certain cases.

In other cases, there were no requirements for a DeM strategy, and the absence of this requirement has not established responsibility and accountability for its development, publication, periodic review and updating and reporting on the related outcomes.

On the other hand, there were also positive findings where the borrowing strategy resulted in lower borrowing costs and shortening of the maturity profile of debt due to meeting debt obligations before they were due.



Chapter 5 Auditing Borrowing Activities

This chapter helps SAls to identify the elements and recognise the importance of the borrowing operations in PDM and relate the topic with possible audit types, criteria, sources of evidence, and sample audit questions and findings.

5.1 Public Borrowing Cycle

Borrowing allows governments to bridge the discrepancies between budget revenues and expenditures. Such discrepancies can be the consequence of internal or external factors. In either case, a strategic, well-considered and transparent borrowing plan is necessary for sustainable public finance.

The public borrowing cycle comprises several specific activities that can be examined by SAls, such as the estimation of borrowing requirements, the preparation of an annual borrowing plan that is consistent with the country's DeM strategy and the identification of best borrowing instruments, such as concessional loans and/or benchmark securities.

Determining how much to borrow is part of the planning cycle of borrowing activities. There are four main factors that public debt managers need to know to obtain a reliable estimate of borrowing needs in the coming period, say one year: (a) debt coming due within a year; (b) an estimate of next year's budget deficit; (c) an estimate of the contingencies, such as defaults of guaranteed loans that would be triggered next year; and (d) an estimate of net financial assets, including accumulation of cash balances, that would be acquired within a year, as shown in *Figure 6*.

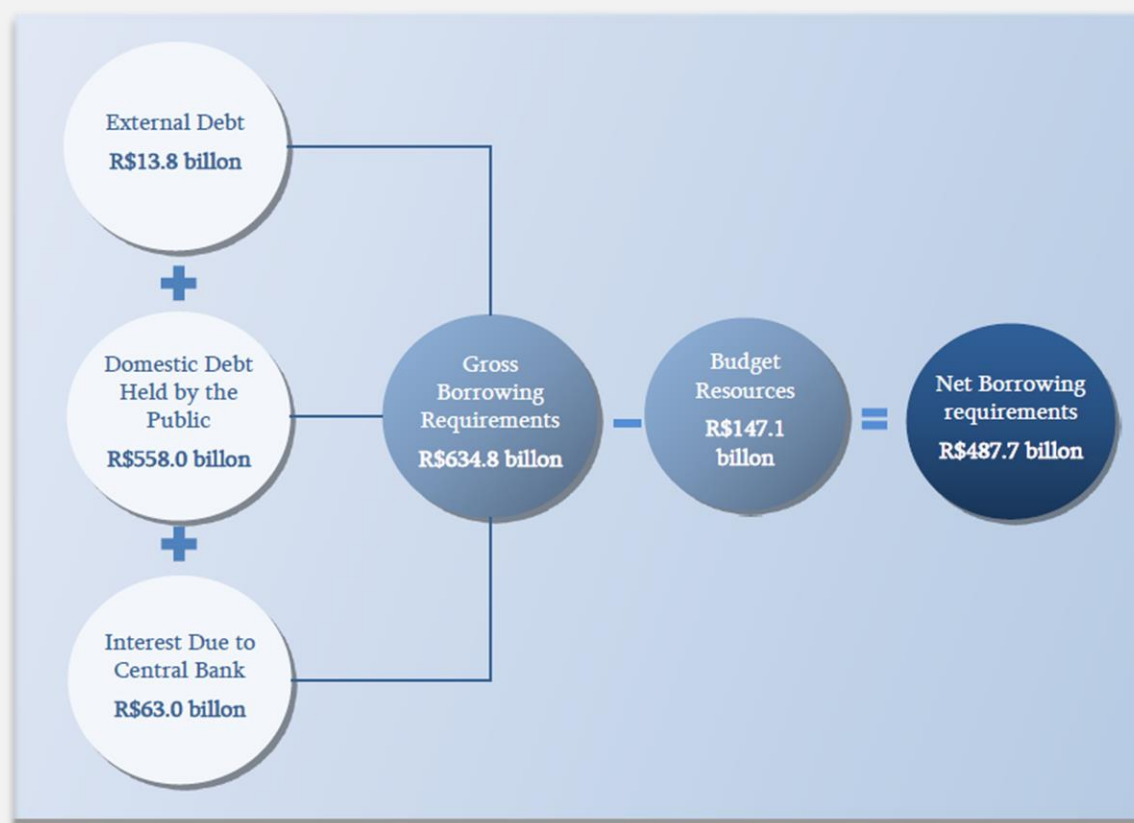
Figure 6. The General Formula for Determining Public Debt Need



Of the above four factors, debt managers will know with certainty only the amount of debt that comes due within a year if their debt records are complete and kept up to date. The other three factors—budget deficit, contingencies and acquisition of net financial assets—are commonly provided by other agencies. Various countries all over the world use different modified versions of this general approach to set the borrowing volume for the upcoming year. For instance, the OECD standardised method for calculating gross borrowing needs states that it is a sum of the budget deficit (net borrowing requirement) and debt coming due within a year (total redemptions).

Shown in *Figure 7* is how the National Treasury of Brazil determines its net borrowing requirements.

Figure 7. Determining the Net Borrowing Requirements, National Treasury of Brazil (in Brazilian real, R\$)



In normal years, the government's borrowing need is largely determined by the size of the budget deficit and by the amount of rollover debt; other factors have a smaller effect on borrowing needs.

Budget deficit is the amount by which a government's spending, both for recurrent expenditures and investments, exceeds its income over a particular period of time. The office charged to provide this data to the DMO should be the agency responsible for the preparation and management of the state budget.

Contingent liabilities are potential liabilities that depend on a future event occurring or not occurring. (See ISSAI 5430 on contingencies.)²⁴

DeM officials must rely on other ministries and programme managers to determine the likelihood of contingencies that will be realised in the current period. Most governments have several programmes that produce large explicit contingent liabilities, such as government-issued loan guarantees. Certain contingencies can immensely complicate the job of PDM. For example, the triggering of contingencies associated with legal obligations (e.g., explicit contingent liabilities) can exert a large impact on public borrowing. In addition to explicit contingent liabilities, governments are also burdened by implicit liabilities. Implicit contingent liabilities are not linked to any legal obligations. Instead, the triggering of these 'implicit guarantees' is based on political and or moral grounds. Examples of triggering events of implicit guarantees include the default of regional or local governments, state-owned enterprises or strategically important private firms or banks, and natural catastrophes.

²⁴ This ISSAI is undergoing evaluation relative to Project 2.9 of the Strategic Development Plan for the INTOSAI Framework for Professional Pronouncements.

Once the total amount to borrow is determined within the context of the DeM strategy, an annual borrowing plan should be developed, outlining how the DeM strategy will be implemented over the coming budgetary period. The annual borrowing plan is an explicit document or a special legal authorisation for the DMO to borrow funds in order to cover annual financial needs. Some countries²⁵ publish the borrowing plan as a separate document. However, in some instances a rough annual borrowing plan is included in the state budget. For example, in Slovenia the key national document in the field of borrowing is the Financing Program of the Republic of Slovenia Central Government Budget, adopted by the government, which defines strategic and operational targets of borrowing for a given fiscal year.

When the sovereign is issuing debt securities in the domestic market through auctions, the borrowing plan should also include the auction calendar. Moreover, efficient and effective cash management supports the development of a more committed and transparent borrowing plan, and contributes overall to reducing the cost of debt. The cash flow forecasts are normally a treasury function, although in some developing countries the DMOs could assume that responsibility also. Because of the close linkage between central government cash flow forecasts and DeM, however, it is essential that regular and reliable information sharing occur between these two functions. It is important to stress that execution of the annual borrowing plan requires consistent and close observation of market conditions. In moments of intense adversity, issuance plans may be adjusted in such a way as to minimise the volatility of the government bond market, thus ensuring an adequate balance between costs and risks.

It is common to link borrowing programs to the fiscal and economic projections contained in the annual budget established by Congress or Parliament. The DeM unit should take part in the budgeting process by informing the decision-makers as to the amount that can reasonably be borrowed in domestic and foreign currency and how much the domestic market can absorb without any detrimental crowding out of the private sector. It is also common to incorporate the views of the central bank on any crowding-out effects. Once the borrowing plan is approved and incorporated into the budget, public debt managers schedule the needed borrowings both in the foreign and domestic markets, broken down in amounts, maturities, currencies, interest rate structure and potential creditors and markets.

Most governments can borrow money from both domestic and international markets. Local capital markets are important to obtain stable funding sources in domestic currency and help governments to match their debt liabilities with government revenues. The recommended best practice in this market is to concentrate government borrowings in a reduced set of liquid benchmark debt securities that help in the development of domestic markets, enhance their ability to financial intermediation and provide the creation of a broader range of risk-management assets, such as a futures market, thereby facilitating better risk management for all.

When issuing debt instruments in the domestic market, sovereigns typically use competitive auctions to decide the price or the yield of the Treasury bills and/or bonds that are being issued, as well as the total amount of each issuance. To obtain the lowest interest possible on these debt instruments (i.e., the highest price), the sovereign should publish an auction schedule well in advance, including the type of debt instruments to be issued and the scheduled dates for each issuance, a good practice consistent with the transparency principle.

²⁵ Brazil, Mexico, and Bosnia and Herzegovina

The terms and conditions of debt instruments issued by the sovereign in the domestic market are short and simple, since they include only the financial conditions relevant to buyers (investors): interest rate to be paid, dates on which interest is payable, date on which the sovereign is bound to redeem the debt instrument and the process applicable to these payments. The DMO should keep a record of all the holders of debt instruments and follow up all the sales of these securities at the secondary market.

It is important when developing domestic debt markets not only to keep track of the institutional investors but also to capture the savings of the individuals through simple information and attractive financial conditions.

Although auctions are the most common price-setting and sales technique used by governments, there are other options, such as subscription and syndication or book-building best efforts.

In many developing countries, the government borrows primarily from external multilateral and bilateral lenders. Low-income countries qualify for official development assistance, which are multilateral funds lent at concessional rates and with longer terms to maturity. In contrast, some medium-income and most high-income countries sell marketable debt securities at market-based interest rates. The table below illustrates the main activities that can be examined in both types of borrowings.

Main Borrowing Activities Are Different for Debt Securities and Loans

I – Debt Securities	II – Loan Borrowings
<ul style="list-style-type: none"> • Define the debt structure: maturity structure of bonds, call provisions • Prepare the official statement • In case of an international bond issue, ask for a credit rating of the bonds • Choose methods of sale: competitive bids or negotiated sales • Conduct sales of securities • Perform after-sale closing procedures • Report on issuance of debt securities. 	<ul style="list-style-type: none"> • Plan country's capital projects • Identify projects and programme • Determine scope of projects and programme • Prepare project or programme appraisal • Negotiate loan • Obtain approval of the loan contract terms • Sign loan documents • Manage loan disbursements • Closing of loan • Report on loan contracting activities

Source: various

From a legal perspective, it is more complicated when the sovereign borrows funds from foreign creditors or investors, either by means of loan contracts or by issuing debt instruments in foreign markets. In this case, the sovereign is treated as any other borrower, and lenders demand to have guarantees that the sovereign will repay the funds borrowed as per the loan contract. Since most of these loans are not guaranteed (unsecured debt), the only protection that the lenders may get is the construction of guarantees in the loan contract. Typically, a foreign loan contract contains its financial conditions, use of the financing resources, pre-conditions, representations and warranties, covenants, events of default and governing law and clauses on jurisdiction.

The financial terms stipulate the amount and currency of the loan; the disbursement process; interest rate and instalments to be paid by the borrower; the loan repayment process (to be repaid in instalments during the life of the loan or in a lump sum on the loan due date); repayment conditions; accounts to be used, etc. The destination of the funds must be stated in the loan agreement, declaring that the loan funds shall be used for a specific purpose as provided for in the loan contract.

Some creditors may impose non-disclosure agreements. It would be useful for the audit to assess whether such agreement is consistent with domestic laws and if not, to opine whether a new law or regulation is needed that sets the parameters for whether such contractual agreements are permissible under the law.

Loans by foreign creditors are usually governed by the applicable foreign law; loans by bilateral creditors, by the law of the lending institution; and issuances of fixed-income securities, by the law of the country where the bonds were issued.

Determining borrowing needs is a complex function that requires a significant amount of information and coordination amongst government agencies. Governments with the capacity to estimate correctly will avoid over-borrowing, which is costly and could lead to a deterioration of the government's fiscal position. Governments can also avoid under-borrowing, which may force governments to alter their budgets, create a liquidity crisis or trigger a debt default. Auditing borrowing needs, therefore, can result in useful findings and recommendations to improve inter-agency coordination efforts, minimise borrowing, strengthen budget execution, estimate loss contingencies and increase returns on financial investments.

The annual borrowing plan, together with the DeM strategy and other relevant documents, should be a simple and clear set of documents and tools that promote better coordination and communication with other State institutions and levels of government in a country, and also make it easier for creditors or investors and the public to become more familiar with the goals and policies of the government's DeM.

Borrowing activities are subject to significant operational risks that can prevent the government from achieving the lowest borrowing costs over time, even with due regard to the risk. For example, many developing countries that obtain concessional loans to finance projects also have to pay large and recurring commitment fees on unused loan balances. Inefficient borrowing activities in some cases can be a significant drag on economic development when they cause significant and recurring delays and cancellation of strategic capital projects.

5.2 Auditing Borrowing Operations in Public Debt Management

After obtaining sufficient evidence to determine if the DMO has complete and reliable information on debt coming due, such as a complete, updated debt amortisation schedule for all loans and debt securities, the SAI will also have to assess the government's capacity to produce the budget figures on revenues and expenses and communicate them promptly to debt managers.

In order to be able to forecast the borrowing requirements caused by a triggering of contingent liabilities, SAIs can include in their audit plan a set of procedures for determining how government officials assess the probability of these triggering events and the financial effects they would incur. Some countries have included these contingencies in the budget planning process. In addition to explicit contingencies, the SAIs should make inquiries about implicit contingent liabilities, which are not linked to any legal obligations.

Auditing borrowing activities involves assessing whether the government has a documented borrowing plan aligned with public debt goals, objectives and strategy, and whether sovereign DeM has adopted best practices and procedures.

5.2.1 Compliance audit of borrowing activities

Planning audit procedures for an audit of borrowing needs involves designing procedures to respond to the identified risks of non-compliance with laws and regulations governing public debt.

The following audit objectives can be considered in a compliance audit:

- To determine if the borrowing plan was developed in accordance with statutory requirements (for example, including the borrowing plan as an annex of the budget law);
- To determine if project loans contracted followed the prescribed project development and financing process; and
- To determine if issuances of government securities were within the set authority or limit.

5.2.2 Performance audit of borrowing activities

The SAI should be interested in whether borrowing activities align with the principles of economy, efficiency and effectiveness, and if they contribute to prudent practices of borrowing. The SAI's role would be to evaluate the performance of the government's borrowing activities, including the planning and execution parts of the public borrowing cycle.

The following audit objectives can be included in the plan:

- To ascertain whether actual borrowing by government was based on sound estimation process of the borrowing needs;
- To determine whether there were reliable estimates of contingencies; and
- To determine whether the principle of economy (minimisation of cost and risk) was considered when borrowing.

5.3 Representative Audit Questions on Borrowing Operations for Public Debt Management

Audit objective: To ascertain whether actual borrowing by government was based on a sound estimation process of the borrowing needs.

- 1) How does the government determine an annual borrowing requirement?
- 2) Does the DMO participate in the government's budgeting process?
- 3) Does the government comply with the strategic benchmarks, if any?
- 4) Who is responsible for coordinating debt and cash management? Is there a formal agreement with the roles and responsibilities of each party?
- 5) Does the government have a documented borrowing plan? If so:
 - a. Does it include indicative dates of each borrowing and the methods and sources of each borrowing?
 - b. Is the plan aligned to the government's debt strategy, if it has developed a strategy?
 - c. Is the borrowing plan coordinated with the monetary authority (central bank)?
 - d. Is the borrowing plan implemented on a regular and predictable basis? Do DeM officials produce a report on the implementation of borrowing plans? Are there public notices that explain changes in the borrowing plan?
- 6) Does the DMO have complete, up-to-date records for the debt that will become due in the coming period?
- 7) Are implicit contingencies included in the estimate? If not, why not, and what could be the risks?
- 8) When does the government announce the domestic borrowing plan, and what information is provided? How frequently is this information updated during the fiscal year?
- 9) Who is responsible for forecasting government cash flows?
- 10) How often are forecasts prepared?
- 11) How accurate have the forecasts been? If forecasts over the years have been materially inaccurate, what were the reasons, and what actions were taken to improve the system of forecasting?

Audit objective: To determine whether the principle of economy was considered when borrowing

- 1) What is the process for negotiating and contracting new loans? Which entity is responsible for managing this process?
- 2) Does the DMO select the best funding source by balancing cost and risk?
- 3) How are the terms and conditions set for each loan, and what scope is there to negotiate these terms and conditions?
- 4) Are there guidelines and limits for non-concessional external borrowing?
- 5) What is the basis used by DeM officials for selecting funding sources: multilateral, bilateral and commercial sources?
- 6) Are non-concessional loans taken even though the government might have been eligible for concessional funding? If so, what were the reasons?
- 7) What debt instruments are sold in domestic markets, and what techniques are used to issue each instrument?

5.4 Audit Criteria for Auditing Borrowing Operations

The DeMPA tool evaluates the borrowing and related financing activities by three DPIs.

DPI-8 and DPI-9 deal with the domestic and external borrowing activities, respectively. In terms of domestic borrowing, it is important to check the following:

- The extent to which market-based mechanisms are used to issue debt;
- The preparation of an annual plan for the aggregate amount of borrowing in the domestic market, divided between the wholesale and retail markets;
- The publication of a borrowing calendar for wholesale securities; and
- The availability and quality of documented procedures for borrowing in the domestic market and interactions with market participants.

To evaluate the external borrowing activities (DPI-9), the following dimensions should be investigated:

- Documented assessment of the most beneficial or cost-effective borrowing terms and conditions (lender or source of funds, currency, interest rate and maturity) and a borrowing plan;
- Availability and quality of documented procedures for external borrowings; and
- Availability and degree of involvement of legal advisers before signing of the loan contract.

In addition, the importance of sound cash management in developing the borrowing plan is highlighted by the DPI-11. Cash flow forecasting and cash balance management are assessed by the following two dimensions:

- Effectiveness of forecasting the aggregate level of cash balances in government bank accounts; and
- Decision on a proper cash balance (liquidity buffer) and effectiveness of managing this cash balance (including the integration with any domestic debt borrowing program, if required).

UNCTAD Principle 14, Avoiding incidences of over-borrowing, states, ‘Governments have a responsibility to weigh costs and benefits when seeking sovereign loans. They should seek a sovereign loan if it would permit additional public or private investment, with a prospective social return at least equal to the likely interest rate’. Furthermore, ‘Engaging in borrowing to solely cover large chronic budget deficits could eventually erode the debtor country’s credit standing, impair its ability to obtain loans on favourable terms in the future and effectively impose a tax on subsequent generations of citizens. Borrowing for this purpose, when not justified by a national emergency, could therefore be inconsistent with a sustainable economic policy’.

5.5 Sources of Evidence While Auditing Borrowing Operations for Public Debt Management

The SAI should obtain sufficient evidence to determine if the DeM units have complete and reliable information on debt due. An example would be an updated debt amortisation schedule for all loans and debt securities.

The SAI can also assess the government’s capacity to produce and communicate promptly to debt managers the budget figures: revenues and expenses.

Also, they will assess the reliability of the estimate of the amount of contingent liabilities that will be triggered in the current period. In their audit plan, it is necessary to include a set of audit procedures for examining the management of explicit contingent liabilities; that is, legal obligations based on a contract (e.g., a guarantee issued for a specific project) or a particular law (e.g., a deposit insurance scheme). As it is a legal obligation, the government has no choice but to make the payment after the occurrence of the event triggering the contingent liability.

The SAI may use the following sources to collect evidence or understand the borrowing operations:

- 1) For domestic debt operations
 - a. Information memorandum or prospectus for each instrument
 - b. Operating procedures for investors or participants in the primary market
 - c. Annual borrowing plan
 - d. Issuance program for T-bills and T-bonds announced by the principal DeM entity, the DeM entity responsible for the domestic wholesale borrowing or the central bank
- 2) For external debt operations
 - a. Documented procedures for external borrowing
 - b. Most recent analysis of the most beneficial and cost-effective terms and conditions
 - c. Documentation of the involvement of legal advisors (for example, recommendations on changes to clauses submitted at various stages of the negotiation process)

5.6 Illustrations of Audit Findings on Borrowing Operations

For SAIs which focused on the borrowing needs of countries during the ALBF programme, the main focus of the audit was on the effectiveness of the operations of the DMO as well as whether conditions of loan agreements were adhered to by the lender or borrower and whether the necessary approval was sought for sovereign loans.

The results of the audits were mixed and difficult to generalise. There were some positive observations during the audits as well as some negative relating to the authority on the borrowing needs.

1) Need for authority from Parliament for emergency borrowings

Where the legal framework is not as comprehensive and institutional arrangements are not as strong, i.e., borrowing strategies and borrowing plans and operational procedure handbooks, the need for emergency borrowings creates a vacuum in terms of the authority in the form of resolution needed from members of Parliament.

On the other hand, where borrowing strategies and borrowing plans are in place together with good institutional arrangements, the SAIs found the foreign borrowing process very effective, and also that the covenants established as part of the negotiations were adhered to and much easier to monitor.



Chapter 6 Auditing Public Debt Service Activities

This chapter helps SAIs to identify the elements of debt service activities in PDM, recognise their importance and relate the topic with the relevant audit types, criteria, sources of evidences and sample questions and findings.

6.1 What Are Public Debt Service Activities?

Public debt service activities are any financial operations related to repayment of the principal and payment of interest, commission, commitment fees, service charges and other fees and, possibly, late interest payments. Debt service can take the form of cash payments, the creation of an arrear, a rescheduling of principal payments, a partial or complete prepayment of principal, debt forgiveness or a debt swap.

The debt service or payment process requires active participation of several entities, namely, the DMOs, the creditors, ministry of finance (budget and treasury units), and the central bank, as the fiscal agent responsible for the country's foreign exchange reserves and monetary policy.

In the context of public finance management, the implementation of an IFMIS allows the automation of the debt service payment procedure. This modern concept minimises risks and facilitates the production of accurate debt service schedules, the generation of the payment orders, the execution of the debt-related budget and the transfer of servicing funds without delays.

Debt reorganisation or restructuring usually involves relief for the debtor from the original terms and conditions of debt obligations. Debt reorganisation or restructuring can take the form of debt rescheduling, debt forgiveness and debt conversions.

Paying on time the correct amounts specified in public debt agreements is the main objective of debt service activities. It is important for debt managers to adopt sound practices in debt servicing because countries that always pay on time are likely to have higher credit status and lower borrowing costs.

A critical component of an effective debt service operation is a secure, up-to-date and complete debt database. This tool is essential to make risk analyses, such as the detection of large servicing payments in the near future, irrespective of the original maturity of the debt instruments.

A complete, up-to-date debt database is necessary to produce accurate debt-service schedules. Prudent debt managers would produce conservative estimates of feasible future borrowing, and incorporate into their future debt schedules the country's macroeconomic conditions, the country's balance of payments prospects, and the government's fiscal position.

Integration between the debt information systems and the other components of public administration (accountancy, treasury and budget) is important to execute debt service operations automatically.

6.2 Auditing Debt Service Activities in Public Debt Management

The focus of the audit of debt service activities would be to examine whether the payments were made on time in the correct amounts and whether the related transactions were recorded accurately and completely.

For efficient debt service activities, the debt managers should adopt sound practices and a secure, up-to-date and complete debt database, if possible, integrated with the other

components of public administration. In assessing the effectiveness, efficiency and economy of debt service activities, SAIs can use flowcharts that visually represent the exchange of important documents and communications in debt operations, as shown in *Figure 8*. SAIs could also focus on the adequacy of cash projections' process to the extent considered in the fiscal budget formulation and on exchange of information between different stakeholders.

Figure 8. Flowchart Debt Servicing Activity

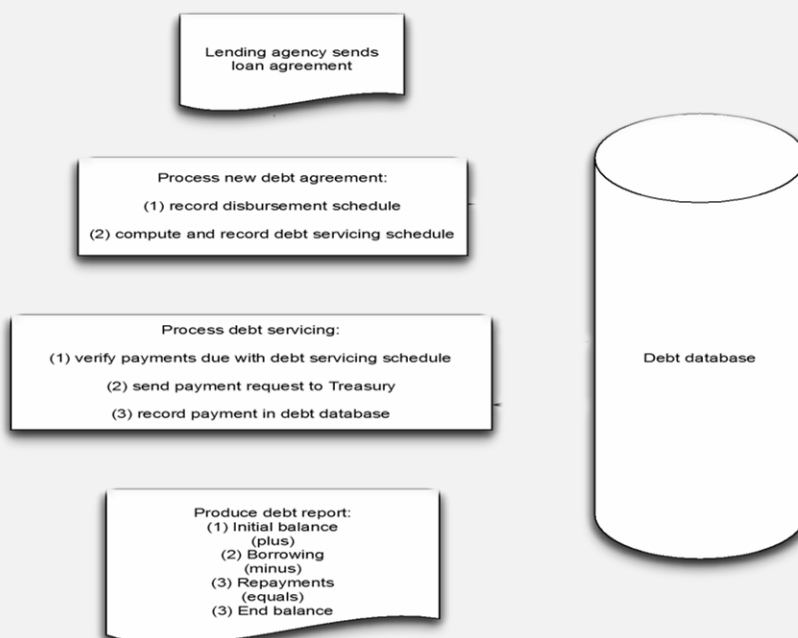
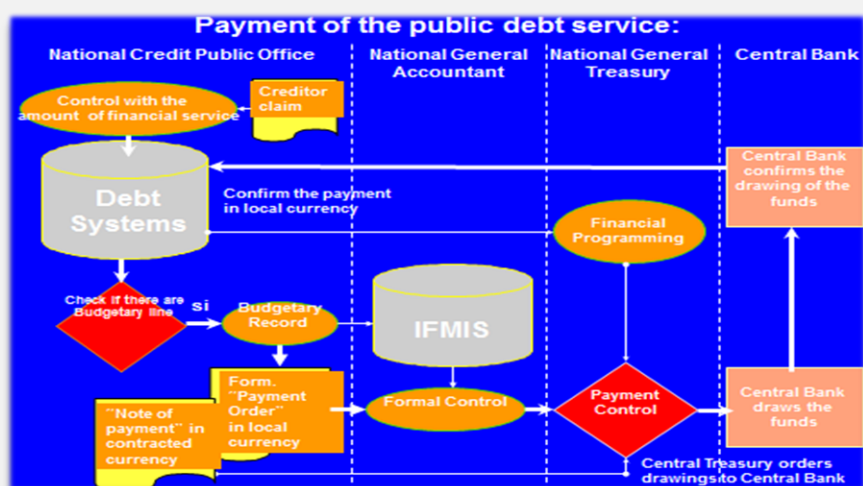


Figure 9 shows how the above functions could be distributed between various departments.

Figure 9. Distribution of Functions for Debt Service Payments



6.2.1 Compliance audit of debt service activities

An SAI can conduct a compliance audit of, amongst others, whether instalments are made as per amortisation schedules and agreements, the information on the schedule agrees with the underlying contracts and debt service activities are in line with established policies and procedures.

The following could be common audit objectives:

- To ascertain whether the public debt database is complete and accurate so as to provide reliable financial information for debt service;
- To ascertain if the DeM system was integrated with other components of public administration consistent with sound international practices;
- To determine whether the debt service process, budget and schedules were adhered to as required under relevant laws, rules and agreements; and
- To determine whether repayments were made to the creditor as per the loan agreement.

6.2.2 Performance audit of debt service activities

Performance audit should focus on the efficiency, effectiveness and economy of carrying out the debt service activities. SAIs can examine the accuracy of the debt service forecasts included in the fiscal budget and its impact on the cost of debt servicing; the cash management activities and related holding costs of cash; whether the established procedures related to debt service activities are in line with best practice; and whether the knowledge management between key stakeholders promotes efficient, effective and economical debt servicing.

The following are possible objectives for a performance audit of debt service activities:

- To ascertain the accuracy of government cash flow forecasts and its impact on cost of debt servicing;
- To determine the rationality of fixation of repayment schedule vis-à-vis the timing of inflow of main sources of government revenue;
- To determine the adequacy and effectiveness of coordination and consultation between relevant agencies relative to debt service activities;
- To ascertain the existing cash-flow forecasting and projection capacity with respect to management of the government's consolidated account, central government account and foreign currency accounts;
- To determine whether all relevant information on loans under debt reorganisation have been validated and updated in the Public Debt Management Information System; and
- To examine whether the debt information provided by the DMO for debt restructuring was complete and appropriate.

6.3 Representative Audit Questions on Public Debt Service Activities

Audit objective: To ascertain whether the public debt database is complete and accurate so as to provide reliable financial information for debt servicing

- 1) Is all debt information relevant to debt servicing as shown in the loan agreement accurately captured in the DeM system?
- 2) Are the dates in the schedule of public debt in the DeM system in agreement with the scheduled dates in loan agreements?
- 3) Are interest projections updated in the system according to the latest disbursement information?
- 4) Do DeM staff reconcile any discrepancies between the public debt schedule and the public country debt data available in websites of the World Bank, the IMF and other creditors?

Audit objective: To determine whether the debt service process, budget and schedules were adhered to as required under relevant laws, regulations and agreements

- 1) Is there a register of all correspondence received at the DMO regarding scheduled payments?
- 2) Are all billing statements received prior to the due date?
- 3) Is a payment made in the absence of a billing statement?
- 4) Are billing statements checked against the DMO's debt schedule? If so, how many discrepancies were detected?
- 5) Have all payments in waiting been cleared within an appropriate time period?
- 6) Are debt service payments made in accordance with procedures?
- 7) Are any debt service payments made that were not in the budget?
- 8) At the budget department, is there a document that records actual expenditures related to debt service? Differences in actual expenditures should be reconciled?
- 9) Are there differences between interest amounts as budgeted and interest amounts effectively paid by the DMO? If so, have these differences been reconciled?
- 10) Are billing statements reconciled against the actual debt service payments made? How many discrepancies were detected?
- 11) Are there differences between the payment orders registered in the MoF or the treasury and the payments made (debit advices) by the fiscal agents (central bank or agent banks)?
- 12) Do the DMO staff identify the reasons for under- or over-payments reported by the creditors?

- 13) Are there any prepayments of debt service? Has the debt service schedule been modified to incorporate prepayments?
- 14) Are there any scheduled payments that were not acted upon?
- 15) Are all payments in arrears acted upon? Has a payment previously in arrears already been made?
- 16) What is the status or classification of amounts in waiting that will not be paid or are in arrears? Are there any write-offs or rescheduled debt?

Audit objective: To ascertain the accuracy of government cash flow forecasts and its impact on cost of debt servicing

- 1) What offices are involved in cash flow forecasting?
- 2) Which office prepares the cash flow forecast and what is the frequency of preparation?
- 3) What is the information considered in the cash flow forecast and from where are they sourced?
- 4) Is a cash flow forecast and meeting conducted prior to auctions of government securities?
- 5) Is there an analysis of the deviation of the actual cash flow from the projected cash flow and its effect on the level of borrowings and related costs?

Audit objective: To determine whether all relevant information on loans under debt reorganisation have been validated and updated in the PDMIS

- 1) Are the new debt agreements confirmed with the creditors?
- 2) Is each rescheduled loan clearly identified as a rescheduling, for example, with an extension name such as 'Paris Club1', 'Paris Club2', 'HIPC'?
- 3) Are the data elements in each loan tranche modified in accordance with the debt rescheduling agreement?
- 4) Do the DeM staff certify that the loan amortisation tables incorporate the terms of each debt rescheduling agreement?
- 5) Is the new interest rate correct so that debt managers can obtain the correct amount of interest to be rescheduled?
- 6) Are the negotiated terms in Paris Club documents incorporated in the PDMIS?

6.4 Audit Criteria for Debt Service Activities

The main DeMPA principles that can be used to establish criteria during the audit of debt service activities are included in DPI-11 and DPI-12.

As indicated, debt service includes the procedures and activities that relate to payment of the principal and interest components of debt, taking into account possible debt reorganisation or

restructuring. The principles establish a guideline on how to organise the debt service activities.

DPI-12 covers debt administration and data security, including availability and quality of documented procedures for the processing of debt-related payments. The recommended practice requires that all payment notifications be checked with internal records before payments are made, payment instructions be subject to a minimum two-person authorisation process and all payments be made by the due date.

Another principle, DPI-6 on coordination with fiscal policy, does not deal directly with debt service activities but affects the government's ability to service the debt effectively. It emphasises the importance of reliable and timely forecasts of the central government's debt servicing.

Unlike DeMPA, the UNCTAD Principles do not cover debt servicing activities, but they include two recommendations on debt restructuring—one on the responsibility of the lenders and one on the responsibility of the sovereign borrowers.

On the responsibility of the lenders, the principles state, 'In circumstances where a sovereign is manifestly unable to service its debts, all lenders have a duty to behave in good faith and with cooperative spirit to reach a consensual rearrangement of those obligations. Creditors should seek a speedy and orderly resolution to the problem.'

On the responsibility of the sovereign borrowers, the principles state, 'If a restructuring of sovereign debt obligations becomes unavoidable, it should be undertaken promptly, efficiently and fairly.'

6.5 Sources of Evidence in Auditing Debt Service Activities for Public Debt Management

The SAI should obtain sufficient evidence to determine if the DMOs have complete and reliable information on debts due. An example would be an updated debt amortisation schedule for all loans and debt securities.

The SAI may use the following sources to collect evidence or understand the debt service activities:

- 1) Procedures manual for processing of debt-related payments and receivables, for debt data recording and validation and for storage of agreements and debt administration records;
- 2) Documents on the physical storage of original, signed copies of loan and derivative agreements in a secure location, of the scanning and maintenance of such agreements in electronic form in a secure location, or of both;
- 3) Documents on validation procedures against payment notifications;
- 4) Evidence of an independent confirmation of all data with external creditors and major domestic investors; and
- 5) Evidence of a two-person authorisation process.

6.6 Illustrations of Audit Findings on Debt Service Activities

The findings identified by the SAIs can be classified into three main categories, related to: (1) debt service projections and payment orders; (2) unpaid obligations from state or local governments; and (3) poor cash management.

1) Debt service projections and payment orders

The SAIs found that lack of good records and update of the necessary variables are causing discrepancies between the payment schedule and the payment order. In another case, debt repayments were not included in the fiscal budget, resulting in a shortage of cash and short-term borrowing to cover long-term debt.

2) Unpaid obligations from state or local governments

The SAIs observed that incorrect recording and monitoring of the general government liabilities are causing problems (arrears) due to non-payment of the local governments' obligations. The provisions of the law for the specific country require the state government to deduct the interest payments from the grants to the local governments resulting from the debt the state has been increasing over the years.

3) Poor cash management

The SAIs noted that the non-existence of a sinking fund to finance debt payments when they become due resulted in borrowing to finance debt payments. The sinking fund was supposed to finance the current debt from the revenue and taxes collected during the period and exposed the country to default risks.



Chapter 7 Auditing Debt Reporting

This chapter looks at the types of public debt reports generated, and the debt data disclosures required by public authorities and stakeholders. It also helps SAIs to identify the key considerations and criteria when auditing debt reporting under the three audit types, namely, financial, compliance, and performance audits.

7.1 What Is Public Debt Reporting?

Public debt reporting encompasses the generation of reports with different objectives. One is operational reports that are used by debt officers to validate and confirm the debt records and the other is the statistical reports which are produced to elaborate periodic bulletins or publications including stocks and flows and projections. In addition to this, the DMO produces several reports as inputs or for reconciliation with the specific debt-related accounts in the financial statements. Debt reports are also produced to support the preparation of the balance of payments, formulation of the budget, etc.

The debt reporting process requires active participation of several entities, namely, the DMOs, the creditors, the MoF (budget and treasury units) and the central bank as the fiscal agent responsible for the country's foreign exchange reserves and monetary policy.

7.2 Auditing Debt Reporting in Public Debt Management

Public debt reports differ primarily depending on the needs of targeted users. Debt reports may provide financial data or other information on debt-related operations.

With financial data that are often presented in financial statements, SAIs will aim, therefore, to determine if such data are in compliance with the criteria of completeness, reliability, accuracy and consistency with prevailing accounting standards and whether disclosure of relevant public debt information is made in a timely manner.

Also, a key objective of auditing debt reporting is to assess whether debt reports meet the requirements and standards established in domestic legislation and international agreements. Thus, SAIs would design audit procedures to determine whether the government regularly publishes information on the stock and composition of its debt, including currency, maturity, residency classification and interest rate structure, as well as the costs of servicing its debt. SAIs would determine whether data on debt stocks and flows are disseminated in a manner consistent with national and international reporting standards and if debt reports meet the needs of the members of Congress or Parliament, the executive staff at the MoF and major institutional lenders and institutions, such as the World Bank and the IMF.

Also, the auditing should evaluate if the detailed reporting is disaggregated by debt instrument, in line with Chapter 6 of the IMF's Public Sector Debt Statistics Guide for Compilers and Users, 2013 (Table 6.2). The audit should examine the legality and consistency with established policy of all such instruments and the legitimacy of such claims. That implies that the auditing activities of the debt instruments should be held by counterparty taking into account the institutional coverage and sectorisation of the public sector, as highlighted in the IMF's Public Sector Debt Statistics Guide for Compilers and Users, 2013.

SAIs would also ascertain whether the statistical debt bulletin or its equivalent includes debt ratios, indicators and risk measures of the portfolio as well as whether loan guarantee information disaggregated by debtor, creditor, residency classification, instrument type, currency, interest rate, inter alia, is also regularly and publicly published by government. Reports to Congress or Parliament should provide an evaluation of DeM operations with complete information on outstanding public debt, debt reorganisation, loan guarantees and on-lending, if any, against the DeM objectives and strategy, with explanations on changes and deviations, and the outcome of the DeM strategy.

Regular disclosure of audited public debt activities allows legislators, creditors and other interested parties to have reliable information to assess compliance with debt legislation and determine if debt levels are sustainable. When the audited debt figures are produced in a timely manner, there is a better chance of addressing potential problems before debt levels become unsustainable and avoiding risky debt decisions that can exacerbate an economic, fiscal or financial crisis.

7.2.1 Financial audit of debt reporting

Public debt information on, inter alia, loans contracted by a sovereign to support government expenditures or for on-lending, government securities issued, and debt service payments are presented in government financial statements (FSs). In this case, a financial audit of debt reporting could be undertaken with the following objectives:

- To determine whether public debt information is presented completely and accurately in the FSs; and
- To determine whether public debt information in the FSs has been accurately and adequately disclosed in a fair manner, in accordance with prevailing accounting standards.

7.2.2 Compliance audit of debt reporting

A compliance audit of public debt reporting would generally determine whether debt reports meet the requirements of internal legislation and international agreements, such as the IMF, World Bank, other lenders and stakeholders.

In some countries, multilateral and bilateral lenders engage the SAI to examine if the terms and conditions of loan agreements have been complied with and this includes the reporting requirements of the lenders. In this case, the audit would address this specific audit scope by applying audit procedures that assess compliance with reporting requirements stated in each loan agreement.

When SAIs are required to examine public debt statistics produced for multilateral and bilateral lending institutions, such as the World Bank and IMF, they would design audit procedures to determine if the public debt statistics meet the disclosure guidelines that have been agreed upon by the country with each lending institution.

If public debt information is presented by a government in periodic statements, such as bulletins of the DMO, the audit should determine whether public debt figures have been disclosed properly and are consistent with other sources of public debt information.

In other instances, compliance audits might be undertaken as an integral part of the audit of FSs, considering that debt accounts and transactions are presented in the FSs of the MoF or the treasury. An SAI might find it efficient to embed an audit strategy, an audit plan and audit procedures required for compliance audit into those required for the audit of FSs.

SAIs could consider the following audit objectives in a compliance audit of debt reporting:

- To determine whether debt reports are compliant with the requirements of a sovereign's laws, rules and regulations; and
- To determine whether the reporting requirements in loan agreements have been met.

7.2.3 Performance audit of debt reporting

A performance audit of debt reporting can assess the reporting practices that enable the DMO to prepare the reports in a timely manner; determine the efficiency with which debt reports are rendered to meet the needs of the members of Congress or Parliament, the executive staff at the MoF, and major institutional lenders and institutions, such as the World Bank and the IMF, and other users of the report; and determine whether debt reports assist debt managers in the formulation and monitoring of economic, fiscal and/or monetary policies. Such audits could also assess whether DMOs provide debt reports on the evaluation of DeM operations against DeM objectives and strategy, and how the results are reported.

The following are audit objectives which can be considered in a performance audit of debt reporting:

- To assess the reporting practices that enable the DMO to prepare the reports in a timely manner; and
- To determine the efficiency of debt reporting to meet the needs of the members of Congress or Parliament, the executive staff at the MoF and major institutional lenders and institutions, such as the World Bank and the IMF, and other users of the report.

7.3 Representative Audit Questions on Public Debt Reporting

The following audit questions may be asked to address some performance audit objectives:

Audit objective: To assess the reporting practices that enable the DMO to prepare the reports in a timely manner

- 1) What are the statutory and contractual reporting requirements of your government?
- 2) How well has your government met those statutory and contractual reporting requirements in terms of timeliness?
- 3) Who is responsible for preparing and submitting debt data to the IMF and World Bank (for example, for the Debtor Reporting System)?
- 4) How are these debt data prepared, and when are they submitted? How is information collected?
- 5) Are there rules under which public sector entities have to provide information about their debt obligations?
- 6) What is the process and who is responsible for preparing a debt statistical bulletin or equivalent debt report? How frequently is this debt information published? Is it publicly available? If so, how, and in what format?

- 7) What other debt reports are produced by the government or central bank? If so, how, and in what format?
- 8) What is the time period or lag from the debt reporting period to the time when reliable debt reports are produced? What validation measures are used to ensure the accuracy of these reports?
- 9) Who is responsible for signing off on or authorising the release of these reports?

Audit objective: To determine whether debt reports meet the needs of the members of Congress or Parliament, the executive staff at the MoF and major institutional lenders and institutions, such as the World Bank and the IMF, and other users of the report

- 1) Is there a government entity and mechanism in place for ensuring that the total public sector data are collected, monitored and reported?
- 2) How well has your government met statutory and contractual reporting requirements in terms of timeliness, completeness, reliability, accuracy and consistency of data presented or published?
- 3) Are contingent liabilities included in debt reports?
- 4) Does the debt statistics bulletin include on-lending?
- 5) Does the debt statistical bulletin or equivalent include the following?
 - a. Information on central government debt stocks (by creditor, residency classification, instrument, currency, interest-rate basis and residual maturity)
 - b. Debt flows (principal and interest payments)
 - c. Debt ratios or indicators (or both)
 - d. Basic risk measures of the debt portfolio
- 6) Are information or data commonly requested or required by the Congress or Parliament, MoF, major lenders and institutions and other users incorporated in the report?
- 7) Have debt reports been utilised by their intended users?
- 8) Have debt reports been the bases for decision-making by their intended users?
- 9) Are the primary users of debt reports satisfied with them?

7.4 Audit Criteria for Debt Reporting

The DeMPA tool includes the assessment of the following two dimensions of DPI-4 on Debt Reporting and Evaluation:

- Quality and timeliness of the publication of a debt statistical bulletin (or its equivalent) covering central government debt, loan guarantees and debt-related operations; and
- The presentation and content of an annual evaluation report to the Parliament or Congress on DeM activities and general performance.

UNCTAD Principle 11 on disclosure and publication states, ‘Relevant terms and conditions of a financing agreement should be disclosed by the sovereign borrower, be universally available, and be freely accessible in a timely manner through online means to all stakeholders, including citizens. Sovereign debtors have a responsibility to disclose complete and accurate information on their economic and financial situation that conforms to standardised reporting requirements and is relevant to their debt situation. Governments should respond openly to requests for related information from relevant parties. Legal restrictions to disclosing information should be based on evident public interest and to be used reasonably’.

‘The material terms (financial and legal) of a sovereign’s outstanding debt issuances should at least be made publicly available in the official language(s) of the country’.

‘Debtors should make public disclosure of their financial and economic situation, providing among others the following information: (i) accurate and timely fiscal data; (ii) level and composition of external and domestic sovereign debt including maturity, currency, and forms of indexation and covenants; (iii) external accounts; (iv) the use of derivative instruments and their actual market value; (v) amortization schedules; and (vi) details of any kind of implicit and explicit sovereign guarantees’.

In line with the above-mentioned guidelines and indicators, a debt statistical bulletin (or its equivalent) covering domestic and external central government debt, loan guarantees, and debt-related operations is essential for ensuring transparency of the debt portfolio and of outstanding loan guarantees. It is vital information to the investors in the central government debt securities.

This bulletin could be in the form of either regular DMO or central bank publications or as statistical tables produced by a bureau of statistics. The bulletin should be published at least annually (preferably quarterly or semi-annually) and provide information on central government debt stocks (by creditor, residency classification, instrument, currency, interest rate basis, original and residual maturity); debt flows (principal and interest payments); debt ratios and indicators; and basic risk measures of the debt portfolio.

Loan guarantees should also be distinguished by type of loan (for example, creditor, residency classification, instrument, currency, interest rate basis, original and residual maturity), clarifying how much has already been amortised. Some basic risk measures should be provided, including ratios of guaranteed debt to GDP, guaranteed loans in foreign currency to total guaranteed debt and the proportion of the guarantees triggered over the past five years, amongst others.

On the other hand, the country should be accountable for its DeM operations to the Parliament or Congress and to the country’s citizens by providing frequent reports on DeM and debt-related operations and making these reports publicly available. This approach promotes transparency in DeM operations and good governance through greater accountability for the substantial responsibilities delegated to DeM entities.

In addition to providing full information about public debt outstanding, accountability is strengthened by submitting a detailed annual report to Parliament or Congress with an evaluation of the DeM operations—including borrowing, liability management operations such as debt exchanges, and on-lending—and then publishing the report on the government’s website. The rationale for this is to ensure that DeM operations have been carried out in accordance with any objectives that have been set by the legislature and with the DeM strategy that was approved by the executive.

The report should include enough information to enable the Parliament or Congress to evaluate how successful the DeM operations—including new borrowings and debt-related transactions—have been in meeting the DeM objectives. If there is a DMO, it prepares this report and sends it to the legislature; if there is no DMO, the DeM entities prepare this report jointly and submit it to the Parliament or Congress. In both instances, the report should be published on the entities’ websites.

7.5 Sources of Evidence in Auditing Debt Reports for Public Debt Management

SAIs should obtain sufficient evidence to determine if the DMO has complete and reliable statistics in line with international and national standards. In general, the following should be the requested documentation:

- Financial statements and related documents;
- Loan, guarantee and subsidiary agreements and related documents;
- DeM strategy;
- Most recent publication of the stocks and flows of the external and domestic debt of the central government;
- Most recent debt statistical bulletin or its equivalent;
- Annual evaluation reports;
- Other reports (for example, the budgetary implementation report), which include details of DeM activities;
- All the reports provided to international agencies (World Bank, IMF, regional organisations, etc.); and
- Reports on projects financed by external or domestic borrowings.

7.6 Illustrations of Audit Findings on Debt Reporting

SAIs conducting audits on the debt reporting found problems in the (1) publication of debt statistics; (2) publication of incomplete data; and (3) inconsistencies in debt information and data.

1) Non-publication of debt statistics

The SAIs found that publication of frequent debt statistics and reporting was not done in spite of laws requiring frequent reporting. The SAIs highlighted the need for frequent reporting to inform decision-making in line with the borrowing strategy and borrowing plan. Frequent errors in recorded data also existed. SAIs identified that lack of capacity and the necessary skills in the middle office as root causes to the problem. Furthermore, contract covenants were rarely published.

2) Incomplete data in debt reports

The SAls observed that an important group of cases periodically produce statistical data; however, the data produced were not useful or relevant for the purpose of decision-making. Details lacking included the sources of debt, recorded intra public debt, domestic debt, as well as the recording or disclosure of debt related to guarantees. More critical statistics that were found to be lacking included totals such as total debt of the State, increases to the debt, and interest and principal repayments.

3) Inconsistencies in debt information and data

The SAls found that there are several cases in which the publications are being elaborated by different sources, causing inconsistencies amongst the information that different DMO units have at their disposal. SAls identified that the lack of reconciliation between different departments and systems are the causes of the problems.

Chapter 8 Auditing On-lending Activities

This chapter looks at the principal characteristics of an on-lending mechanism and assists SAls to understand international sound on-lending practices, and relates the topic with possible audit types, criteria, sources of evidence, and sample audit questions and findings.

8.1 On-lending Activities

Governments often support public investment programs, regional business developments and the business needs of state-owned enterprises through direct government lending or on-lending of borrowed funds. Such on-lending instruments are expected to provide an adequate supply of credit for the legitimate business or investment needs of the beneficiary, as defined by the respective government policy. The government is also expected to price that credit reasonably in line with competitively determined market interest rates.²⁶

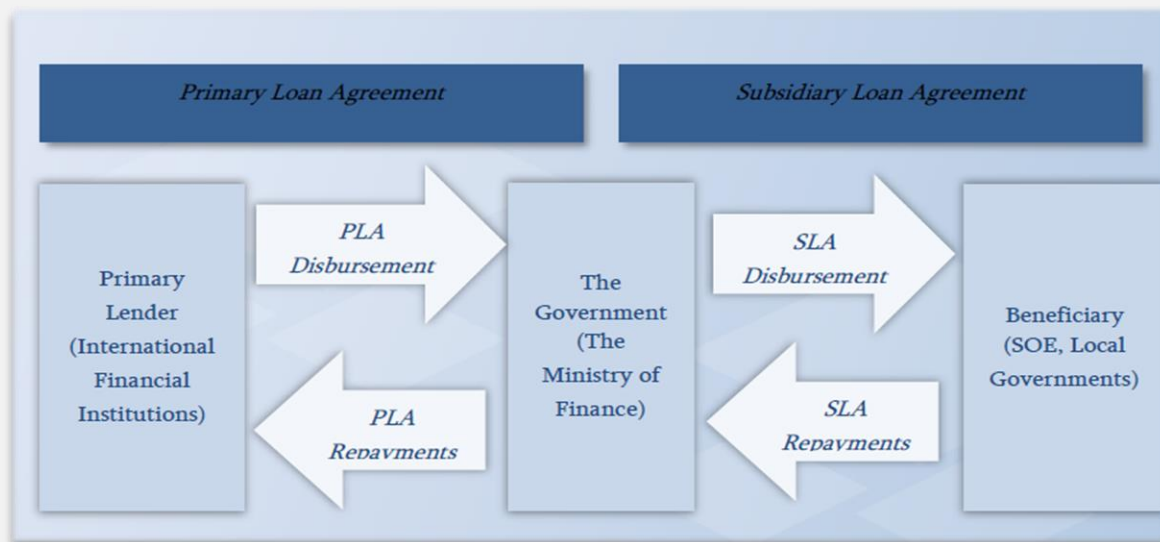
Countries, especially those with lower level of economic development, extensively use the on-lending mechanism to support the implementation of investment projects. On-lending occurs when funds are borrowed by a government or a domestic financial institution (normally a public organisation and acting on behalf of the government) with the aim of lending the funds to public sector entities. The loan proceeds are to be made available, through an on-lending agreement, to a third party in the country of the borrower, usually with the previous agreement of the foreign creditor. Thus, on-lending, as shown in *Figure 10*, entails two distinct agreements:

- The direct loan between the creditor (usually the international financial institution) and the government, where the government is the debtor and assumes the debt service under the primary loan agreement (PLA); and
- The on-lent loan between the government and a public sector sub-national institution, where the central government is the creditor and signs a subsidiary loan agreement (SLA) with the final beneficiary.

More complex on-lending agreements may also exist. These may involve more than one public entity as creditor and/or several public sector enterprises as debtors. In effect, the government functions as an intermediary between the borrowing entity (final beneficiary) and the lender. Government on-lending is also often a substitute for guaranteeing loans that are raised directly by the beneficiary.

²⁶ DeMPA Methodology, <http://documents1.worldbank.org/curated/en/305821468190742099/pdf/96671-WP-DEMPA-2015-Box391446B-PUBLIC.pdf>

Figure 10. On-lending Operations



The legal basis for on-lending operations is generally set forth under the government's public DeM laws. The government can use multiple channels for on-lending such as the MoF or government agencies established for on-lending in specific sectors. On-lending may also be done through the use of financial institutions (commercial banks or micro-finance organisations). In that case, an SLA is signed with the financial institutions, which take the responsibility to invest those funds in a field that is a subject of the investment project specified in the loan agreement.

When the MoF does not on-lend funds directly to the final borrowers, it establishes the terms and conditions for on-lending agreements with agencies that subsequently channel the on-lent funds. Thereafter, these agencies assume full responsibility for the management of all the individual loans they extend. Individual borrowers make debt service payments to the on-lending agency, which then transfers these funds to the primary lender. In certain cases, the intermediary (sovereign or bank or enterprise) may charge interest on top of the interest of the original loan, which is not transferred to the primary lender.

Very often, the terms of the direct loan and the on-lent agreement will differ; for example, in the amount or repayment terms. The repayment of a loan depends on the terms and conditions in the agreement between the government and the lender. Nevertheless, the repayment period under the SLA usually does not exceed the date stipulated in the direct loan.

Furthermore, whenever a government contracts a foreign loan under market conditions and then makes it available in the form of sub-loans in the domestic or foreign currency, it usually applies the interest rate and fees it owes to the lender plus an annual on-lending fee. It may also charge a preferential interest rate for certain categories of projects; for example, in the social sector or for reconstruction costs following a national disaster.

The IMF's External Debt Statistics: Guide for Compilers and Users provides the following guidance on the debt classification of on-lent loans:

'An institutional unit within an economy might borrow funds from a non-resident and then on-lend the funds to a second institutional unit within the economy. In such instances, the first institutional unit should record an external debt liability, with any subsequent on-lending classified as a domestic asset. If an institutional unit within an economy borrowed from a non-resident and on-lent the funds to a non-resident, the unit should record both external debt and an external claim'.

Receipts from on-lending are reflected in the national budget as sources of financing. Therefore, on-lending will improve the budget position when loans are repaid.

State entities often have the legal authority to borrow on their own terms. However, they are generally not in a strong financial position and therefore are unable to access funds from various lenders at terms that are more favourable than market terms. On-lending provides a means for the state or private entities to benefit from the strength of the government's balance sheet and access to concessional financing. It is also a means for the State and/or private entities to deliver the government's development projects and thereby contribute to an improved economic environment.

The rationale for on-lending is to support the implementation of important investment projects by servicing the external debt without increasing the state's budget burden. By on-lending, the government increases the volume of domestic financial assets.

At the same time, a deteriorating performance of the on-lent loan repayment has a significant adverse impact on the government's fiscal position. Under an on-lending mechanism, the government bears the risk that the borrower entity will default on its loan. Default by the borrower burdens the government with the obligation of debt servicing, which it must finance out of its own resources. Thus, the government is implicitly supporting delinquent borrowers and this is not deemed to be sound governance practice. When this risk is significant, on-lending should be carefully considered against other alternatives, such as open tenders, public-private partnerships or direct private sector development.

DMO authorities must be well prepared to identify, evaluate and mitigate the main sources of risk (currency, interest rate, maturity mismatch risk and credit risk) related to the individual on-lending transactions as well as to the whole on-lending portfolio. The materialisation of such risks would negatively affect cash flows and consequently have an adverse impact on the budget deficit. With prudent implementation of on-lending practices, countries have the opportunity to increase the potential for economic growth.

8.2 Auditing On-lending Activities

Before conducting an audit of on-lending activities, SAIs should have a general understanding of the on-lending operations, agreement types, main institutions involved in on-lending operations, and related rules, regulations and policies. SAIs should perform a preliminary analysis of best practices that govern on-lending operations as a source of audit criteria.

8.2.1 Compliance audit of on-lending activities

A compliance audit of on-lending activities can be conducted by an SAI to assess whether loans for on-lending were secured in accordance with relevant laws, regulations, policies and prescribed processes, and whether the terms of the PLA and SLA had been complied with by all parties. The following are possible audit objectives for on-lending activities:

- To ascertain whether loans contracted for on-lending conform with relevant laws, regulations, policies and processes;
- To determine whether the terms of the PLA and SLA had been observed by the concerned parties to the agreements; and
- To ascertain whether loans were on-lent to borrowers in accordance with the purpose(s) agreed to in the PLA/SLA.

8.2.2 Performance audit of on-lending activities

An SAI can conduct a performance audit of on-lending activities to ascertain the following:

- The economy, efficiency and effectiveness of the scheme for financing investment projects;
- The efficiency and effectiveness of the DMOs in the risk assessment for on-lending activities and in the implementation of mechanisms to reduce the related identified risks; and
- The performance of on-lending entities or borrowers in terms of repayment of on-lent loans and its impact on the government's fiscal position.

The following are audit objectives which can be considered in a performance audit of on-lending activities:

- To determine whether the use of on-lending is an economical, efficient and effective means for funding the government's investment projects;
- To ascertain whether the on-lending entity has efficiently and effectively undertaken risks assessment for on-lending to borrowers and the implementation of risk mitigation strategies; and
- To determine the adequacy and timeliness of the government's response to non-payment of on-lent loans by borrowers.

8.3 Representative Audit Questions on On-lending Activities

Audit objective: To determine whether the use of on-lending is an economical, efficient and effective means for funding a government's investment projects

- 1) Are there other options considered in financing the government's investment projects? If yes, what are they?
- 2) Is there a detailed study or analysis undertaken in the use of on-lending for investment projects? If so, what are the results?
- 3) What are the costs involved in on-lending by the government?
- 4) What are the processes involved, and were they undertaken efficiently?
- 5) Compared with other financing schemes, has on-lending been determined to be the best alternative for investment projects in terms of cost?

Audit objective: To ascertain whether the on-lending entity has efficiently and effectively undertaken the risk assessment for on-lending to borrowers and the implementation of risk mitigation strategies

- 1) Does the on-lending entity have clear policies for on-lending to borrowers and beneficiaries?
- 2) Does the on-lending entity consistently undertake risk assessment and at periodic intervals?
- 3) Have mitigation strategies been developed for identified risks?

- 4) Are there cases where identified risks have actually occurred? Were the mitigation strategies implemented? Have they been assessed to be effective or ineffective?
- 5) Has the on-lending entity been efficient in undertaking the risk assessment of on-lending activities?
- 6) Has a risk register for on-lending activities been prepared, disseminated and periodically updated?

Audit objective: To determine the adequacy and timeliness of the government's response to non-payment of on-lent loans by borrowers

- 1) Has the on-lending entity ensured that statements of accounts or billing statements are received by borrowers within a period which allowed borrowers to make payments on time?
- 2) Is there a prescribed process for informing the government of the borrower's inability to settle particular repayments due?
- 3) What are the remedies available in case of inability of borrowers to settle their obligations when due?
- 4) Have all borrowers of on-lent loans made repayments in the full amount due and within deadlines?
- 5) How has the government prepared for incidences of non-settlement of amounts due from borrowers?
- 6) Have there been instances when repayments to the principal lender or financial institutions not been settled on time due to late notice from the borrowers of their inability to pay amounts due to the government?
- 7) Is there a provision in the national budget for the government's advances for repayments to the principal lender or financial institution for on-lent loans, or are there dedicated sources of funds?

8.4 Audit Criteria for On-lending Activities

The DeMPA Tool evaluates the on-lending activities within DPI-10 (Loan Guarantees, On-lending, and Derivatives). Dimension 2 of that performance indicator assesses the government's on-lending activities by looking at the availability and quality of documented policies and procedures for approval and issuance of central government on-lending. To ensure the sound management of on-lending transactions, credit risk assessment and analysis of the financial impact if the on-lending beneficiary fails to repay the loan should be regularly conducted. Moreover, government assets used for lending purposes should be a subject of regular monitoring.

UNCTAD Principles 5 and 12, in the context of project financing, focus on the needs of ex-ante evaluation of the project to be financed from the borrowed funds. 'Lender's responsibility to investigate a project that is being funded with public monies does not relieve the sovereign borrower of its independent responsibilities in this regard'.

8.5 Sources of Evidence in Auditing On-lending Activities

The SAIs may use the following sources to collect evidence or understand the on-lending activities:

- Operational guidelines for government on-lending, including the method for calculating on-lending fees, risk assessment and reporting of on-lent funds;
- Original loan between the government and the initial lender; and
- Subsidiary agreements between the government and the final borrowers.

8.6 Illustrations of Audit Findings on On-lending Activities

In the audit of on-lending activities, an SAI observed the following:

1) Absence of comprehensive on-lending policy document

The MoF does not have in place a comprehensive on-lending policy document setting the criteria for debtor selection and responsibilities of the entities involved in the process. Mainly the selection of the debtor is done by the donor organisation and the MoF does not check the financial soundness of the company assumed to be a final beneficiary of the externally borrowed funds. As a result, the debtor selection process does not include the due diligence activities and at the moment loans are extended to the companies in financial difficulties.

2) Unassessed risks on on-lending activity and absence of related guideline

The risks related to the on-lending activity are not assessed, priced and taken into account in determining the terms and conditions of on-lending. The MoF did not undertake any independent credit risk assessment prior to the on-lending transactions. In addition, the MoF does not have in place a written guideline describing how credit risk should be assessed and the way corresponding loan terms should be formulated when evaluating on-lending proposals. As a result, the basis of extending (or reorganising) the loan to the entity whose financial situation does not guarantee the loan repayment is ambiguous.

3) Ineffective monitoring for performance of on-lending agreements

Monitoring the performance of the lending and on-lending agreements is one of the important operations for the effective portfolio management and one of the statutory requirements. Monitoring function of the MoF is not an effective tool in detecting the threats in terms of loan recovery. An existing credit monitoring system does not provide the MoF with sufficient information about the financial soundness of the borrower and does not ensure the identification of the potential problems in debt servicing.

4) Deficient recording and publication practices for on-lent loans

The existing practice of recording the on-lent loans does not ensure the completeness and provided information does not reflect the real standing of the on-lending portfolio. In addition, detailed information about the current standing of the portfolio is not disclosed publicly, neither by means of web sources nor in the budget documents. Therefore, the transparency of the data is not ensured.

Chapter 9 Auditing Public Debt Management Information Systems

This chapter helps SAs to understand the main functions of a PDMIS and its importance in PDM. The chapter also provides an audit approach that incorporates INTOSAI standards and guidelines related to public debt audit, and the relevant audit types, criteria, sources of evidence, and sample audit questions and findings.

9.1 What Is a Public Debt Management Information System?

Typically, for government debt managers who manage large and risky debt portfolios that include foreign currency transactions, the following core functions are usually required:

- **Debt recording and analysis.** A general ledger capability is needed to account for transactions and to record debt servicing obligations. Information on the debt profile includes principal amortisation schedules, amount of outstanding debt and due dates for debt-servicing payments. This is essential for managing liquidity, preventing default and assisting with reporting needs (budget tables, reports to sovereign credit rating agencies, etc). If government debt managers are undertaking public debt issues, conducting hedging and buyback transactions or trading strategically with a goal of making risk-adjusted returns, they will need to capture market data through access to live prices such as spot and forward exchange and interest rates, as well as swap market spreads and secondary market spreads.
- **Risk and performance analysis.** This could include elements such as scenario analysis for assessing cost–risk trade-offs, information on costs at risk or budgets at risk, comparisons between the composition of the actual portfolio and the benchmark portfolio, tactical trading performance relative to position limits and loss limits, and an assessment of credit exposure against peer credit limits.

Therefore, the complex nature of public debt and its dependence on consistent and timely data for accurate analysis has encouraged many countries to develop or acquire debt management information systems. These systems ideally aid them in the recording, analysis, management, monitoring and reporting functions of public debt. The system is a combination of software, hardware, people and communication system that support data input, processing, storage and the production of outputs, such as management reports of both domestic and external debt portfolio.

For sound PDM, a PDMIS should support the following functions:

- **Recording function.** DeM staff should be able to record debt and debt-related information, including basic details and terms of contractual debt instruments, such as loans and debt securities, in addition to actual transactions of disbursements and debt service and forecast for debt service schedules.
- **Reporting function.** DeM staff should be able to generate reports that meet internal and external reporting requirements, such as debt reports for the World Bank’s Debt Reporting System, Quarterly External Debt Statistics, General Data Dissemination System, Special Data Dissemination Standard, etc.
- **Analytical function.** DeM staff should be able to obtain debt indicators and develop ‘what if’ scenario analyses resulting from hypothetical changes in financial variables. This function, linked with up-to-date market information such as interest and foreign

exchange rates, as well as key macroeconomic information such as government revenues, GDP, international reserves and exports, will assist in analysing the public debt portfolio and the debt strategy. Interface with strategic modules should be also foreseen as, for example, with the MTDS module.

In addition, a PDMIS should be able to be integrated with other public financial management systems, such as treasury management and budget execution systems.

SAIs should be mindful that the computer software and hardware components will not be effective in accomplishing these functions without well-trained staff and well-designed procedures.

Characteristics of a good public debt management information system. A good PDMIS should do the following:

- Enable debt managers to record cash flow accurately for all transactions and to translate these flows into present values when necessary. The cash flow involved is associated with foreign currency and domestic currency borrowings, hedging and trading activities, and on-lending.
- Use a single database for best accuracy and efficiency. The system used should cover all or most of the flow of transactions between different parts of the organisation.
- Provide access to market information services. Wherever feasible, manual data processing should be minimised.
- Ensure integrity of the data produced and allow for further developments and system updates.
- Be user-friendly and easy to maintain, have adequate security features and be accompanied by good user documentation and online help.
- Provide complete coverage of all the financial instruments (loans and bonds) and their basic information (debtor, creditor, amount, currency, interest rate and schedule of repayment, etc.).
- Be able to produce reports on debt totals on an individual and aggregated basis with forecasting of debt service on existing and future borrowings.
- Identify standards related to information security.
- Have an emergency action plan in case of an information loss.

9.1.1 Commonly used public debt management information systems

UNCTAD's Debt Management and Financial Analysis System (DMFAS) and the Commonwealth Secretariat's Debt Recording and Management System (CS-DRMS) are the two major computer information systems that have been specially developed for use by government debt managers. Both systems are widely used and are designed to assist countries in capturing and storing information section by section in a computerised system. Both also include features that can analyse the stored information. These systems are used by different countries for management of the total debt portfolio or used in conjunction with other information systems that specialise in

specific debt instruments, such as auctions of domestic debt securities. Another option is the use of a country's own specific development or the adaptation of a commercial application to its own needs.

UNCTAD's Debt Management and Financial Analysis System (DMFAS). The DMFAS is a specialised debt management and financial analysis software. It enables the debt office to develop a debt database containing detailed and aggregated data on public and publicly guaranteed short- and long-term debt (external and domestic). It covers a large range of debt instruments (short- or long-term debt), including loans (bilateral, multilateral, private) and debt securities (bills, bonds with fixed or variable coupons, promissory notes, etc.), as well as Sukuk (Islamic securities). The system also allows for the recording and management of grants, on-lent loans, private non-guaranteed external debt and short-term external debt (aggregated or detailed basis) and real transactions (real drawings and debt service operations). The classification of instruments in DMFAS reflects the current international standards. Because the system can process large quantities of debt data, more time and energy can be deployed on analytical and management tasks. Its design allows for easy customisation and adaptation in accordance with the needs and preferences of each client institution. It is regularly enhanced so that it remains current with, and helps establish, best practices in DeM. In order to improve overall public financial management, the DMFAS software can be interfaced with other integrated financial management systems using web services.²⁷

Commonwealth Secretariat's Debt Recording and Management System (CS-DRMS). The CS-DRMS assists countries in recording and managing debt by providing a comprehensive database for external and domestic debt data, both public and private, on a section-by-section basis as well as tools for analysing and managing the loan portfolios. It is regularly enhanced to reflect changes in internal operations, creditor practices, debt reporting standards and technology in order to reflect the best available options in DeM. The CS-DRMS is an integrated system that records various types of monetary flows within both external and domestic debt for everyday administration and management. The CS-DRMS is used mostly in Commonwealth countries. It has an external debt module that allows for the recording of a wide range of official and commercial needs, including short-term and private sector debt. It also provides a domestic debt module that allows for recording transactions during the issuance cycle of domestic debt instruments, such as treasury bills, bonds and notes. CS-DRMS is also used for planning debt issues, auctions and bid analysis. Actual and forecast transaction data as well as data on arrears are captured in a manner that meets the international debt data guidelines. The system is also capable of handling debt restructuring, including debt refinancing and Paris Club rescheduling.

The special management tools module assists debt managers in debt strategy formulation and analysis, such as portfolio analysis, sensitivity testing for risk management and monitoring of debt sustainability indicators. There are also various querying and reporting facilities, including standard reports and a custom-built report generator. Multilayer security features are provided to meet individual country requirements.²⁸

Today the majority of developing countries use one of the above two systems, in combination with other information systems, for the management of public debt.

²⁷ For additional information please refer to <http://vi.unctad.org/debt/debt/m2/documents/dmfas.pdf>.

²⁸ For additional information please refer to <https://thecommonwealth.org/about-cs-drms>.

9.1.2 Controls for information systems

General controls provide the framework of overall controls for IT functions. In other words, they are like a foundation on which specific application controls are built. General controls relate to all parts of an IT system, and must therefore be evaluated early in an audit. General controls are needed to support the functions of application controls, and both are needed to ensure complete and accurate information processing.

The following are various categories of general controls.

- **Organisation and management controls** are aimed at ensuring operational efficiency, sound human resource policies and management practices, and adequate segregation of duties between the information processing area and the other organisational sections as well as within the IT system itself, and at providing methods for assessing effectiveness.
- **Segregation of duties** ensures that one person does not have complete control over a monetary transaction throughout its initiation, authorisation, recording, processing and reporting cycle. The following techniques are used to provide reasonable assurance in this regard:
 - User identification codes/IDs;
 - Passwords; and
 - Supervisor review at scheduled or random times.
- **Operational controls** refer to the day-to-day operations and usage of the hardware and software within the organisation. Operational controls ensure that IT processes are effective and efficient and that only authorised working practices are adopted. Operational controls include the following aspects:
 - Activity logging and reporting—error logs, transaction logs and access control logs;
 - Monitoring procedures;
 - Media management, including proper management of disks, tapes and CD-ROMs;
 - Support requirements, including backup, training, help desk and problem management;
 - Regular and proper data back-up to avert loss of important information in the event of system maintenance failure, both hardware and software;
 - Processing requirements, including batch and online processing; and
 - Effective monitoring and administration of the network.
- **Physical controls (access and environmental)** are aimed at preventing unauthorised access to and interference with IT services. They include administrative procedures; for example, staff identity badges and control of visitors. Physical measures such as mechanical key locks and electronic door locks are often used.
- **Logical access controls** use a computer system's built-in security to prevent unauthorised access to sensitive files and data. This control also ensures that access rights of all users are limited to the requirements of their job descriptions.
- **Security management controls** is a centralised application to monitor the security of all the applications in use.

- **Program change controls** are necessary to ensure that all changes to the system configuration are handled accurately, completely and in a timely manner. Poorly designed changes could alter relevant information and remove audit trails.
- **Business continuity planning** and emergency strategies are essential backups for any business, and government offices are no exception. It is important for debt management offices to fully develop comprehensive recovery strategies to ensure that government debt management operations can continue to operate in the event of natural disasters or other unforeseeable events.

The SAIs need to determine ahead of time the appropriate methods that should be applied during testing, because typically there are not enough time and resources to test all the controls. Four basic methods are followed in testing general controls:

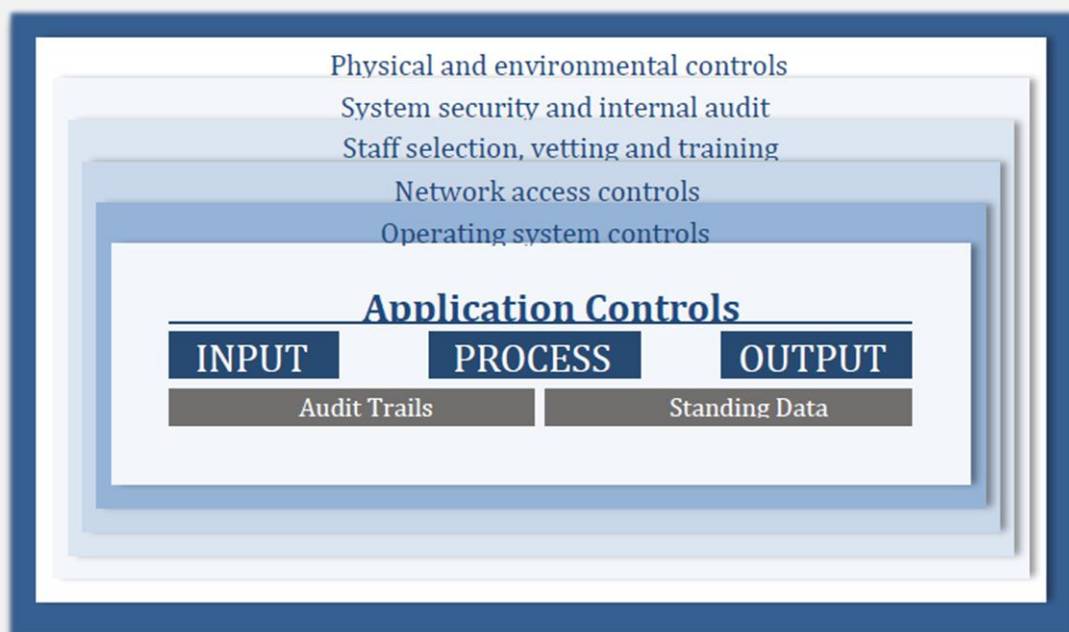
- Inquiry;
- Inspection;
- Observation; and
- Limited re-performance.

After testing, the SAIs document and evaluate the test results to arrive at a conclusion about the effectiveness of a system's general controls. If the general controls are found to be weak, the audit may not be able to proceed to testing of application controls and may have to rely on substantive testing. However, if there are few minor weaknesses, they can be reported to the public debt office during the exit conference or through an audit note.

After determining that the general controls operate effectively, the SAI is ready to test the application controls. Data are tested over accounting applications in order to assure that all transactions are authorised, recorded and processed accurately and on a timely basis. Application controls relate to the transactions and standing data pertaining to each computer-based system and are therefore specific to each such application. They may consist of manual procedures carried out by users (user controls), or automated procedures and controls performed by the computer software, as shown in *Figure 11*.

Figure 11. IT Controls Framework

Source: IDI – ISCITA e –Learning Course on Auditing IT Control



In a PDMIS, it is essential to perform data quality control or data validation and to ensure the reliability of debt data on a long-term basis. Debt data validation is defined as the process of ensuring that debt data are complete, accurate and consistent in order to produce reliable and timely information that meets the objectives and needs of domestic and external institutions.

An assessment of the quality of the database will reveal the weaknesses as well as the strengths of the DMO in being able to compile and record accurate, consistent and comprehensive data. In an audit, the SAI analyses the entire set-up of the debt office, its organisation and its procedures. Debt data validation has a narrower focus and concerns only the database and its surrounding procedures.

Data validation is important to check whether:

- Agreements and/or transactions may be missing from the database (data validation will check the completeness of the information). For instance, SAIs should check that all payment notifications (billing statements) have been received prior to the due date.
- Agreements and/or transactions may be miscoded (data validation will check the accuracy of information). For instance, billing statements should be checked against the debt office's projections and dates of payments.
- Different institutions may have conflicting information about the same debt (data validation will check the consistency of information). For example, SAIs should check the timeliness of payments and determine the cause of any late payment.

The debt data validation should be understood as an ongoing process of quality control by the DMO itself. It includes:

- Assessment of the reliability of the debt database;
- Measures for remedying errors found; and
- Implementation of regular measures of quality control in order to maintain the quality of the database over the long term.

9.1.3 Importance of a public debt management information system

Timely public debt reports help to prevent irregularities and safeguard assets. Because public debt operations involve large sums of cash, timely information on cash proceeds and payments associated with public debt transactions can discourage fraud. Consequently, a computer-based information system can help the country's debt managers to do the following:

- Produce timely, complete and reliable debt reports to policymakers and international monitoring institutions;
- Perform technical analyses of risks embedded in the country's debt structure, which are useful inputs in the development of a medium-term DeM strategic plan and the conduct of debt sustainability analysis; and
- Achieve the integration of debt and cash management with budgeting information into an IFMIS.

An effective and advanced informational system is characterised with several valuable features that trigger sound PDM. In particular, it:

- Enables debt managers to record accurately all cash flow transactions associated with foreign currency and domestic currency borrowings, hedging and trading activities, guarantees and on-lending, and to translate these flows into present values when necessary;
- Uses a single database for completeness, accuracy and efficiency and covers all or most of the flow of transactions between different parts of the organisation;
- Provides access to market information services and makes it available in the system, and minimises manual data processing wherever feasible;
- Ensures integrity of the data (valid, complete and accurate) produced and allows for further developments and for system updates, and is user friendly and easy to maintain, has adequate security features and is accompanied by good user documentation;
- Provides complete coverage of contractual debt instruments (loans and bonds) and their basic information (debtor, creditor, amount, currency, interest rate and schedule of repayment, etc.) and is able to produce reports on debt totals on an individual and aggregated basis with forecasting of debt service on existing and future borrowings;
- Enables all recorded transactions to be backed up, preferably automatically and in one repository, to ensure uniqueness of information regarding government accounts and revenues.

In many countries, one system is not able alone to provide all of the above functions of public DeM in an effective manner. If additional systems are used by the DMO, it is important that they share a common database and integrate it with any other specific module. Ideally, the integration of the PDMIS with the other public finance management systems should enable straight-through two-way electronic processing of debt operations such as payments.

9.2 Audit of Public Debt Management Information Systems

Before conducting an audit of PDMIS, SAIs need to acquire an understanding of the scope and characteristics of the country's PDMIS; how it is structured and managed; its applications; and how it is integrated with the DeM activities. Access to personnel and the computer systems is necessary to determine the audit approach. An audit of PDMIS calls for an independent assessment of how the risks are managed and mitigated to ensure the reliability of debt information. Two types of mitigating controls are commonly found: general controls and application controls.

When conducting the audit of public debt information, SAIs need to refer to the INTOSAI information system audit guidelines²⁹ and their respective SAI's information system audit manual. The INTOSAI guide includes high-level questions that are useful for SAIs, and a checklist is attached in its Annex D, focusing on the application control of DMFAS and CS-DRMS.

²⁹ GUID 5259, Public Debt Information System, provides auditors with descriptive guidance on auditing public debt management information systems. Because the INTOSAI already has some documents related to information technology (IT) audits developed by the Working Group on IT Audit, this GUID focuses on the application controls, which must be specific for the public debt management information system.

In carrying out an audit of PDMIS, SAIs need to check the following areas:

- Security features in the areas of debt data processing, and safeguards to secure access to and use of public debt data;
- Accidental and deliberate threats, and their impact on delivery of computer-related services;
- Effectiveness, integrity and completeness of controls within the system;
- Value for money in the procurement and development process; and
- Conformity with relevant standards.

9.2.1 Financial audit of public debt management information systems

If the audit of the PDMIS is conducted as part of a financial audit, the audit approach should be designed in a way that enables the SAI to check the design and implementation of controls for the purpose of ascertaining the extent of reliance that may be placed on the existing information system.

The objectives of a financial audit of PDMIS that cover general and application controls could be as follows:

To assess the design of the PDMIS (general and application controls) and test whether they are working effectively to enable the generation of complete, timely and accurate debt data.

9.2.2 Compliance audit of public debt management information systems

Under a compliance audit of the PDMIS, SAIs could evaluate the information systems' compliance with laws, regulations and directives related to its operations.

The objectives of a compliance audit of PDMIS that cover general and application controls could be as follows:

- To check the design and implementation of controls and compliance with laws, regulations and directives related to the operations of the information system.

9.2.3 Performance audit of public debt management information systems

The objectives of a performance audit of PDMIS that cover general and application controls could be as follows:

- To check whether the design and implementation of IT systems enhance the timeliness in the production of data, and the accuracy, completeness and integrity of the database to enable effective DeM operations; and
- To ascertain whether there are any gaps or deficiencies in information systems and IT controls and any effects on the DeM reporting performance.



9.3 Representative Audit Questions for Performance Audit of a Public Debt Management Information System

This section provides potential questions that SAIs may address in a performance audit of a PDMIS.

Audit objective: To check whether the design and implementation of IT systems enhance the timeliness in the production of data, and the accuracy, completeness and integrity of the database to enable effective DeM operations

- What DeM system is adopted, and where is it installed?
- Are there additional systems installed in different institutions? Do they share a common database?
- Are the debt programme and debt data secured and checked out only to authorised individuals by a custodian?
- Are passwords formally assigned, routinely changed and protected from use by unauthorised people?
- Does the computer system have embedded rules, such as credit checks, to verify the accuracy of debt information as it is entered into the computer?
- Are backup copies of debt files, programs and documentation maintained?
- Is there adequate documentation of the programs, applications and debt processing procedures?

Questions related to general controls

- Has a comprehensive strategy been developed and formally approved and is up to date?
- What are the bases on which the decision was taken to acquire or develop *vis-à-vis* competing systems?
- Are user guides easily available to the users, and are the users sufficiently trained for effective use of the system?
- Is there a helpdesk system to provide efficient trouble-shooting assistance, and how cost effective is that support?
- Is there adequate documentation of the debt management processes used by the system?
- Are responsibilities for controlling access to and use of files clearly defined?
- Are passwords formally assigned, routinely changed and protected from use by unauthorised persons?
- Is access to files and IT equipment through physical means well controlled?
- Have connections and access to the network been approved and secured? Is access to files and databases through software and networks well controlled using, e.g., virus controls and firewalls?
- Has effective risk assessment been carried out to identify the business and IT systems critical to the organisation?
- Have a business continuity plan and supporting detail procedures been prepared that allow recovery of the system in a controlled manner from a partial or total loss of IT or data and business services?
- Are back-up arrangements for files well controlled?
- When the system is integrated with the payment system, does it provide for a workflow process to control payments?
- If the debt system is integrated, are there sufficient firewalls to prevent wrong information flowing into the debt system through the integration?
- Are the different categories of users of the system satisfied that the system efficiently meets their needs? If not, what challenges do they face?

- Is the system being continuously improved?
- Are changes introduced to locally developed systems authorised and disseminated in a controlled environment?
- Are debt management system procurements consistent with the DMO's business process and IT strategy and do they adhere to procurement regulations?

Questions related to application controls

- Are all transactions entered in the system authorised, complete, accurate, timely and recorded once only?
- Are there appropriate processing controls in place to ensure completeness and accuracy of data?
- Does the system have adequate controls to ensure the accuracy, completeness, confidentiality and timeliness of reports?
- Is a complete audit trail maintained in the system to allow data and transactions to be traced from input through output?
- Does the system have necessary arrangements for creating back-up copies of data and programmes, storing and retaining them securely, and recovering applications in the event of non-availability of system and data?
- Are standing data in the system properly controlled and maintained to ensure reliability of data?
- Are the information systems used by different DMOs effectively interfaced?

9.4 Audit Criteria for Public Debt Management Information Systems

DeMPA tools articulate the importance of debt administration and data security.

DPI-12 concentrates on four crucial characteristics of debt administration: (1) availability and quality of documented procedures for processing debt-related payments; (2) availability and quality of documented procedures for debt and transaction data recording and validation, as well as storage of agreements and debt administration records; (3) availability and quality of documented procedures for controlling access to the central government's debt data recording and management system and audit trail; and (4) frequency of off-site, secure storage of debt recording and management system backups.

DPI-13 articulates the importance of segregation of duties for some key functions, as well as the presence of a risk monitoring and compliance function; staff capacity and human resource management; and presence of an operational risk management plan, including business continuity and disaster recovery arrangements.

DPI-14 is concentrated on completeness and timeliness of central government records on its debt, loan guarantees and debt-related transactions, and complete and up-to-date records of all holders of government securities in a secure registry system, if applicable.

9.5 Sources of Evidence in Auditing Public Debt Management Information Systems

The SAIs should obtain the following evidence as support documentation:

- Procedures manual for processing of debt-related payments and receivables, for debt data recording and validation, and for storage of agreements and debt administration records;
- Documents of the physical storage of original, signed copies of loan and derivative agreements in a secure location, of the scanning and maintenance of such agreements in

- electronic form in a secure location, or of both;
- Evidence of validation procedures against payment notifications;
- Documents on the independent confirmation of all data with external creditors and major domestic investors;
- Evidence of a two-person authorisation process;
- System access permissions and evidence of system security and access controls;
- Evidence that audit trails are monitored; and
- Evidence of the storage location of debt recording and management system backups (the location verified by the assessors).

9.6 Illustrations of Audit Findings on Public Debt Management Information Systems

SAIs conducting audits of the PDMIS found (1) certain inadequacies in the recording and record-keeping; (2) deficiencies in the functioning of the PDMIS; and (3) deficiencies in financial reporting.

1) Inadequacies in recording and record-keeping

SAIs found that record-keeping was not accurate and complete. The information disclosed in the reports for the year under review could not be verified. Similarly, no records of guarantees and on lending that have been given by the government could be provided by the entity. In other cases where Excel was used to record details of debt agreements, SAIs noted the inefficiencies and effectiveness a DeM and analysis system will add in the recording and analysis of the debt agreements.

2) Deficiencies in the PDMIS functions

The countries involved with the programme have different information systems for recording. In some cases, because the functions of recording are split across departments, different software is used. For example, to keep track of cash flow and to manage the public debt information, in many cases the software duplicates others and does not reconcile with the other, which created doubts regarding the integrity of the information provided by the different modules. Another important finding is that in a lot of cases the information systems are isolated or not integrated with the rest of the public administration components, causing a lot of duplication of efforts and increasing the risk of manual errors.

The difference between debt management systems and budget and accountable systems is that the latter do not allow keeping a record on adequately articulated public indebtedness. There is also a lack of a sub-index of the IFMIS that identifies, within each accounting account, the balance of each financial instrument component of the public debt.

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Abbreviations

ALBF	Audit of Lending and Borrowing Frameworks
BIS	Bank for International Settlements
CS-DRMS	Commonwealth Secretariat's Debt Recording and Management System
DeM	debt management
DeMPADebt	Management Performance Assessment
DMFAS	UNCTAD's Debt Management and Financial Analysis System
DMO	debt management office
DPI	DeM performance indicator
DSA	debt sustainability analysis
ECB	European Central Bank
Eurostat	Statistical Office of the European Communities
FSs	financial statements
GAO	United States Government Accountability Office
GDP	gross domestic product
GPG	global public good
GUID	Guidance
IAO/U	internal audit office/unit
IDI	INTOSAI Development Initiative
IFMIS	integrated financial management information system
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
ISSAIs	International Standards of Supreme Audit Institutions
IT	information technology
MoF	Ministry of Finance
MTDS	medium-term debt management strategy
OECD	Organisation for Economic Co-operation and Development
PDM	public debt management
PDMIS	public debt management information system
PLA	primary loan agreement
SAI	supreme audit institution
SLA	subsidiary loan agreement
UNCTAD	United Nations Conference on Trade and Development
WBG	World Bank Group
WGPD	Working Group on Public Debt

