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**INTOSAI  
Public Debt Working Group**

**An Exercise of Reference Terms to Carry Out  
Performance Audit of Public Debt**

**November 2007**

INTOSAI Public Debt Working Group  
Chairman  
Arturo González de Aragón, C.P.A., *Auditor General*  
Mexico

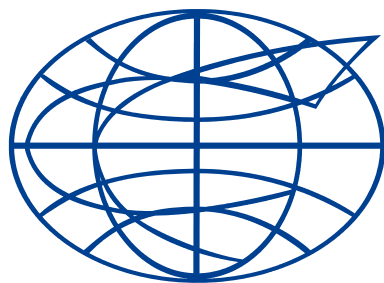
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An Exercise of Reference  
Terms to Carry Out  
Performance Audit of  
Public Debt

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November 2007

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# 1.- Introduction

In June 2003, the Public Debt Committee of INTOSAI approved the development of a project on terms of reference for public debt performance audits. In June 2004, at the PDC Meeting, held in Moscow, the first draft was presented. This time in Sofia, the version that includes the valuable contributions sent by participating SAI's in 2004, is at your disposal.

The Committee considered it was necessary to integrate all efforts that have already been made into a comprehensive audit procedure that summarizes and links all the previous outcomes so as to define the terms of reference for a performance audit which methodologically supported SAI activities on this subject. Therefore, issues to deal with will be those of the common interest of the highest possible number of INTOSAI member countries, without deepening into specific aspects.

The exercise is divided into six different lines of work. The first one proposes the terms have to be considered by an auditor in order to test whether the public debt and its relating concepts have been defined and classified clearly and according to hermeneutical standards.

The second one addresses the items that should be included in the normative and legal framework of a country in order to provide the debt management with consistency and governance.

The third one encompasses the essential aspects needed to determine whether debt management is carried out in accordance with the best practices. We propose to verify the following: (1) that the government has a strategy of indebtedness to get into debt; (2) that the debt structure in terms of currencies, maturities, rates and financial instruments is part of the aforementioned strategy; (3) that debt management includes risk assessment in order to guarantee and support the adopted strategy; (4) that debt management is based on prudent practices; (5) that a recording and monitoring system is implemented, and that high quality reports, based on it , are prepared.

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The fourth one introduces the need of undertaking a vulnerability and sustainability analysis by means of static and dynamic indicators. The former responds to whether in the prevailing conditions, the government will be able to afford its liabilities. The latter has the purpose of evaluating whether in alternative or risky scenarios, the government will be able to service its debt.

The fifth line of work refers to the assessment that should be carried out by the auditor in order to give an opinion on the behavior of the institution in charge of debt management and its staff, in particular, on their competences, training, experience, as well as the ethics code they should follow.

The last line addresses the government obligation to notify and disclose in a timely, systematic and transparent manner, information on public debt, obligations and associated risks; it also deals with the government's commitment to issue complete, periodical and timely reports.

The proposed terms of reference do not evaluate the social and economic impact in indebted countries. Although in some countries these issues might be out of the SAIs' scope, it could be a topic that the Committee should consider for future work agendas, and they could be used by countries where SAIs may lawfully provide advice to the executive on its decisions about these matters. At first sight, the analysis on this issue should respond the following questions: Up to what point, has public debt contributed to economic development in emerging countries?, Up to what point has the debt service impeded their development?, What has been the purpose of indebtedness?, How different would the current conditions be if the resources had not been available?

The crowding out effect related to the bonds issued by the government is not considered in this analysis does nor the following questions: Do the resources which are handed over by the private investors to the government imply a higher multiplicative effect in the capital formation process?, Which is the allocation made by the government and which would be the one made by the private investors? Who is more efficient at investing? The Supreme Audit Institutions have a lot to do with the answers to these questions.

A country's development level may have an influence on debt management.

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Elements inherent to the development level of a country are discussed in the risk assessment, vulnerability and sustainability chapters. It might be evident to say that the lesser the country's development, the greater attention and care is required for the analysis of these concepts. A country's development level may impact on its capacity to manage appropriately its debt

Given the importance of debt in public finance, the need to implement performance audits is evident. This document proposes a framework that could serve as guideline and trigger the realization of this kind of audits. These terms of reference may be improved by the comments, observations and suggestions of Committee members.



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## 2.- Conceptual Framework

According to the Public Debt Committee, a correct definition of debt should be accurate in order to avoid doubts on the usage of particular concepts. The definition should be (1) clear for the report to be easily understandable, (2) consistent throughout the time, (3) suitable for analysis and (4) comprehensive, in order to assure that particular concepts have been included.

The definition of debt must make clear its main components so that its management, accountability and auditing are carried out on the same basis, creating the conditions for generating historical data. Furthermore, the definition must take into account the terms usually used in the international field so as to undertake benchmarking exercises.

The most important element for carrying out a performance audit of public debt is that the conceptual framework includes a broad definition of debt that enables to undertake an assessment of management, vulnerability, sustainability, the actors' competence and accountability. Conceptualization of debt must embrace total debt of central government, its organizations, its firms, governmental financial system (development banks), the state and municipality governments, the monetary authority, contingent liabilities, and the potential existence of hidden liabilities.

It is understood by contingent liabilities the obligations acquired by the State that may or may not come due, depending on whether particular events occur, therefore, their fulfillment or the amounts in which it can become unavoidable is uncertain or imply a certain degree of uncertainty, when appearing as a result of a future event.

Hidden liabilities are those that do not appear in the countable, financial or budgetary registries, and at a given time they become indispensable as national debt. They are liabilities that the government does not officially know and become transparent due to auditing or by some demand. These liabilities are generally found in government-owned production corporations, financial agencies, trusts or, in such cases as trials in which

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claims or indemnifications by expropriation reclamations are made.

A broad debt definition does not imply that SAI's must audit every practices of public debt management in the same performance audit project. Sometimes it is advisable to prioritize, the specific practices that cause problem. Each SAI, according to its material and human resources and legal framework might define a strategy to deal with, at different periods and systematically, the different areas involved in debt management. It is advisable that audits deal with specific issues, but that the analysis be made with an adequate focus and high quality, in order to fulfill its goal of offering substantive recommendations and promoting better debt-management practices.

It is proposed for the auditors to consider at least the elements in the conceptual frameworks. These elements are contained in the Fiscal Risk Matrix prepared by the World Bank and the International Monetary Fund.

## Governmental Fiscal Risk Matrix

| Sources of obligations   | Direct liabilities<br>(obligations in any event)  | Contingent liabilities<br>(Obligations if a particular event occurs)  |
|--|---|---|
| Explicit Government responsibilities recognized by a law or contracts                                      | <ul style="list-style-type: none"> <li>▪ Sovereign debt</li> <li>▪ Budget expenditure composition</li> <li>▪ Legally binding expenditure</li> </ul>                           | State guarantees for non-sovereign borrowing and obligations issued to sub-national governments and public and private sector entities (development banks)  |
| Implicit Government responsibilities as a moral obligation before the public or caused by social pressures | <ul style="list-style-type: none"> <li>▪ Pensions*</li> <li>▪ Social security schemes</li> <li>▪ Health care financing</li> <li>▪ Public investment projects costs</li> </ul> | <ul style="list-style-type: none"> <li>▪ Default of sub-national government or public/ private entity on non-guaranteed debt/ obligations</li> <li>▪ Banking failure (support beyond government insurance, if any)</li> <li>▪ Cleanup of liabilities of entities being privatized</li> <li>▪ Failure of a non-guaranteed pension fund, employment fund, or social security fund (protection of small investors)</li> <li>▪ Possibly negative net worth and/or default of central bank on its obligations (foreign exchange contracts, currency defense, balance of payments)</li> <li>• Other calls for bailouts (for example, following a reversal in private capital flows)</li> <li>• Environmental recovery, disaster relief, military financing</li> </ul> |

SOURCE: The World Bank and Oxford University Press (2002), “Government at Risk. Contingent Liabilities and Fiscal Risk”, chapter 1, page 23.

\*/That would be the case if there is no law mandate for the government to fulfill these responsibilities. If there were law mandate, those charges would fall under direct explicit liabilities.



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## 3.- Normative and Legal Framework

Public debt management must be based on a set of laws and administrative norms with a general scope, which regulate operations and activities. This legal framework must clearly establish the competence to contract loans , to issue new instruments, to invest or allocate resources derived from debt, to grant endorsement or guarantees and in general to carry out any kind of transactions required for debt management.

The legal and normative framework must ensure an adequate mandate and functions in all entities that look after the management of public debt. There are various options of assigning functions in debt management, but in every case the institutional framework must specify the faculties of each participating entity, the coordination among them, and the required exchange of information in order to make decisions and determine the threshold of contingent liabilities.

It can be asserted that most political constitutions around the world provide general guidelines that should be abided by with regard to the endorsement, acquirement and management of sovereign public debt. Generally speaking, the administrative and constitutional laws of each country include provisions on definitions, responsibilities, coordination schemes of budget and extra-budget activities, government's relations with other entities, such as the Central Bank and public financial and non-financial firms, etc. Off budget expenditures should be encompassed by law, since they might become collectable as debt, thus representing a problem as it is likely that budgetary provisions had not been made.

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Generally speaking, the approval of debt contracts is responsibility of the congress. The acquirement, management and reporting obligation are overseen by the Executive Branch. Responsibilities must be clearly stated; otherwise, communication and coordination within the government, and the decision-making process and accountability may be affected.

It is necessary for every country to have a legal framework, which determines and outlines, at least, the following aspects:

- Formulation of policies and strategies on public debt.
- Explicit definition of objectives and debt allocation.
- Entity or federal agency designed to acquire credits on behalf of the Nation and to order the payments for the acquired debt.
- Entity responsible for the approval of debt contracts.
- Entities authorized to sign contracts for debt.
- Establishment of the entity or area in charge of recording and managing the public debt, responsible of carrying out and authorizing all transactions involving public credit, and providing guarantees in credit transactions. Auditors must verify that these responsibilities area clearly defined, regardless of the existence of a debt-management entity.
- Cases and conditions in which the government acts as guarantor.
- Obligations regarding publication of reports on the debt status and, in general, on the public access to information.

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# 4.- Reference Terms for Debt Management

Debt management can be defined as the necessary operations to obtain financial resources in the amount and time required, and to fulfill the debt service at the lowest possible cost. Debt management's main objective is obtaining a stable financing, at the lowest possible cost, to sustain government's activities. Debt management comprises the design of contracts for credit starting from a short, medium and long-term plan, which must establish four concepts: the debt structure in accordance with the currencies, holders, rates, terms, instruments and contractor entities; the risks evaluations involved in the contract; the prudent management practices; and all the recording, control, and monitoring process.

The debt plan consists of establishing and executing a strategy to manage debt in order to obtain the agreed financing, to reach the risk and cost goals, the compliance of payments obligations, and to satisfy any other debt management goal established by the contracting government. The adopted strategy must assure the meeting of the government's financial requirements and the fulfillment of its payment obligations in the short, medium and long terms at the lowest possible cost, considering the corresponding risk degree. From this perspective, a debt management plan must comprise activities oriented to the accomplishment of the following objectives:

- To guarantee liquidity of the government's treasury
- To count on a debt maturity structure which protects government's liquidity.
- To maintain equilibrium between costs, rates and terms, considering associated risks with the lowest cost.
- To establish an adequate coordination with external markets.

- To establish and maintain an effective internal capital market.
- To have an adequate recording system based on a rigorous and clear methodology that allows for accountability.

An operational program consistent with objectives and strategies must be established in order to execute a public debt plan, which must include bond-selling procedures, maintain relations with the creditor and establish control systems to inform about debt levels and its risks. The first step towards making the public debt management operational is to make sure that debt is structured in such a way that the payment of its service is guaranteed and smooth throughout time.

## **4.1.- Debt Structure**

Debt structure assessment consists of an exercise that combines different variables: currencies, holders, interest rates, terms, instruments and government entities.

Some indicators used to evaluate potential problems related to debt structure are the following:

- Ratio of fixed debt to floating debt. Fixed debt is the one that matures or is re-financed in a period over 12 months; floating debt is the one that matures before a year. It is also necessary to analyze the ratio of debt placed at a term of less than one year and the one placed at a longer term. This ratio shows the time government has to face its obligations in the maturity calendar. The longer the term, the more favorable the ratio would be, longer terms for the investment or project maturation thus allowing making resources available for their payment. By the same token, the second ratio will be more favorable if most of the debt is considered as fixed debt.
- Profile of maturing debts: average maturity and duration. In order to carry out this assessment it is necessary to have a record of all of the instruments in circulation, both internal and

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external. This profile shows debt characteristics regarding terms and time in which there will be a need of foreign currency for its payment

- Portfolio diversification. Governments must make sure that in the internal and external markets enough negotiable titles with a range of expiring terms exist in order to guarantee efficiency. Besides terms, portfolio diversification will offer choices regarding currency and payment conditions. The broader the diversification degree, the lesser the risk of the increase of a currency's value that might make the acquired debt more expensive.
- Ratio of internal debt to external debt, according to different classifications (by currency or holder). The internal debt is considered less risky because government has more elements for internal debt management.
- Ratio of market debt (bonds) to non-market debt (bank credits, for example). Depending on market conditions, bond issuing or bank credits might be convenient or necessary. In the majority of cases, it is considered more prudent to turn to international organisms.

Sound debt management must include targets for measuring the performance of debt management practices.

## **4.2.- Risk Assessment**

The strategy for debt management is controlled and evaluated on the basis of different indicators of inherent risks derived from public debt structure as well as form different evaluation techniques.

Risk assessment is the process whereby situations and events that might prevent the debt management authorities from meeting their obligations are defined, as well as the probability that such contingencies occur.

The more frequent risks public debt management might face are the following<sup>1</sup>:

- Market risk. Refers to the risks associated with changes in market prices, such as interest rates, exchange rates, commodity prices, currencies, etc, that have an impact on debt servicing costs.
- Rollover risk. The risk that debt will have to be rolled over at an unusually high cost or, in extreme cases, cannot be rolled over at all. When the government can not pay its debts, it is forced to renew them, with the inconvenience that, facing unequal conditions, it must accept the imposed terms. The only way to deal with this risk is by contracting feasible maturity terms.
- Liquidity Risk. There are two types of liquidity risk: the one that refers to the penalization to which the debt issuers are exposed when they try to allocate stocks when there is no demand. The other form of risk is faced by the borrowers and it refers to a situation where the volume of liquidity of assets can diminish quickly in the face of unanticipated cash obligations and/or a possible difficulty in raising cash through borrowing in a short period of time. Correct assessment of this risk requires a rigorous and detailed register of the government's liquid assets.
- Risk of not attaining desired fiscal revenue goals (tax and non-tax revenues). The risk of having an unsustainable debt depends not only on factors that directly affect the existing debt, like interest rates or exchange rates, but also on the risk that the revenue collecting system does not attain the foreseen goals. If they are not

<sup>1</sup> See International Monetary Fund and World Bank, Guidelines for public debt management, March 21, 2001. Public Debt Committee, INTOSAI. Public Debt administration and fiscal vulnerability, tasks for the SAIs, February 2003. World Bank and Oxford University Press, Government at risk. Contingent liabilities and fiscal risk. International Monetary Fund, Risk management of sovereign assets and liabilities.

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accomplished, debt might not be honored. To mitigate this risk, governments must make their revenue collection services more efficient.

- **Credit risk.** The risk of non performance by borrowers on loans or other financial assets or by a counterparty on financial contracts. It also refers to that case in which bonds issued by a government are not accepted in the credit market. When securities are not accepted in the international financial markets it may be due to the documents high risk, or because a rate high enough to compensate the risk is not being offered.
- **Settlement risk.** Refers to the potential loss that the government, as a counter party, could suffer as a result of failure to settle, for whatever reason other than default, by the counterparty. This risk arises when unnecessary risks on credits are taken.
- **Risk of natural disasters or adversities produced by social anomies that force the reallocation of resources.**
- **Country risk.** For the emerging countries, this risk is evaluated by the Emerging Markets Bond Index Plus (EMBI+), which is elaborated by J. P. Morgan. This index measures the degree of “danger” involved in each country for foreign investment. It is directly associated to the higher interest rate that must be paid by a country for its loans in the international market, as well as the rate that must be offered to investors.
- **Operational risks.** The risks related to the management of debt transactions that take place in the debt offices. The operative risks are the following:
  - o Lack of clarity on the functions and responsibilities scope belonging to each administrative unit.

- o Staff with not enough training, for instance, to handle complex debt instruments, the related technology or the evaluation of risks.
- o Risks related to procedures. They arise whenever characteristic functions of debt management have not been formally regulated through established written procedures, and the workflow has not been structured in a predictable way and in accordance with an adequate design.
- o Documentation risks. These risks arise whenever debt transactions are not put in proper form through agreements that comply with ideal and legally regulated models, or when those contracts are not executed in all its terms. This type of risk also takes place whenever operations are not timely supported through proper confirmations. The auditor must verify that the legal areas as well as that of supporting personnel count on agreement and confirmation models.
- o Fraud risks. Those existing in the lack of internal controls and due to management opacity.

A performance audit must test risk-management practices that debt managers perform in order to supervise public debt difficulties. Auditors should corroborate that techniques or models in use are effective to detect and monitor contracted debt risks.

### **4.3.- Prudent Practices on Debt Management**

All governments face multiple choices to set debt management objectives, acceptable risk, ways to deal with contingent liabilities, and criteria to channel lent resources.

Contingent as well as direct implicit liabilities are quantified and recognized by governments that have established an institutional framework for fiscal discipline. Good examples include the multiyear budgeting and reporting practices of Australia, Canada, Germany, and the Netherlands<sup>2</sup>.

<sup>2</sup> Polackova, Hana, “Contingent Government Liabilities: A Hidden Risk for Fiscal Stability” (Octubre 1998). World Bank Policy Research Working Paper No. 1989.

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The auditor must prove the existence of prudent practices on debt management:

- A legal and normative framework that clearly establishes the attributions of those who are allowed to contract debt, issue new instruments, invest or make transactions on behalf of the government. It should also be verified whether public debt management offices have a strong operational structure that includes the delegation and clear and specific assignment of responsibilities to every participating public entity.
  
- Comparing risks and costs. A framework must be established, so that debt managers can identify and weigh the tradeoffs between costs and risks of the debt portfolio. In order to assess the risk, debt managers must regularly conduct strain tests to the debt portfolio. These test are generally based on models that interrelate the disturbances the government or the whole country are exposed to, such as rollover risks or high volatility of domestic and foreign financial markets. Costs and risks analysis also include the appraisal of interest rates and terms.
  
- Concerning contingent liabilities,
  - o Concepts that might become contingent debt or liabilities must be defined.
  - o Thorough monitoring of liabilities and contingent obligations incurred up to a given date must be done as well as the evaluation that they may become titled debt or budgetary expenses must be carried out.
  - o Contingent liabilities and obligations must be quantified, as well as the budgetary provisions needed.
  - o The risk of these liabilities and obligations, as referred to the short, medium and long term fiscal sustainability, considering its possible effects on the economy in general, must be evaluated.
  - o Public debt policy decisions must be made aiming to

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diminish the probable future financial costs, in order to avoid steep pressures and changes in the governmental budgets.

- o The Legislative branch and the society in general must be properly informed, on its amounts and movements, as well as of the actions that are undertaken on the matter.

- Lastly, it is necessary to corroborate from a micro-administrative dimension that debt management is linked to a clear macroeconomic framework, so that governments guarantee that the relationship between debt and macroeconomic indicators as well as the increase rate of the public debt are sustainable. Auditors must evaluate if authorities are paying enough attention to the elaboration of a strategy that includes prudent debt management measures articulated with a solid macroeconomic framework.

#### **4.4.- Recording, Control and Monitoring**

It is essential that the recording and the government-declared data satisfy basic quality criteria, and that mechanisms through which the Legislative Branch and the citizenry may certify its accuracy and right timing exist. Principles and practices on this matter include data quality norms.

The INTOSAI, the International Monetary Fund, the Inter-American Development Bank, and the World Bank, among other international agencies, have promoted the making of manuals and norms to guarantee data's high quality. One of the most important recommendations is the performance of crossed verifications to check the information inner consistency, and the periodic conciliation of data coming from different sources. Also, the information must be subject of an independent evaluation from the Executive Branch that must result in reports to both the Legislative Branch and the citizenry, on the integrity of the government's accounts.

An information system that gathers and produces trustable and accurate information is needed, in order to attain the mentioned objectives regarding the use of sound debt management practices to measure and evaluate the risks that a government might face.

The established recording system must fulfill the following conditions:

- 
- The use of a uniform accounting system for the registration of budgetary, treasury and public debt operations.
  - The database must offer consistent information on cash, budget, and direct and contingent liabilities, and ease the information flow among the different administrative units, as within themselves.
  - The unit in charge of making accounting norms must establish a uniform accounting system, as well as the requirements for the reports concerning its content and form.
  - Coordination between personnel in charge of the different dependencies, in order to efficiently manage the information systems' evolution.

The main objective of internal control activities is to provide reliable reports to those in charge of debt management for the decision-making process regarding financing contracts, budget and cash flow.

Monitoring refers basically to the establishment of appropriate mechanisms to supervise changes, in order to inform decision takers so they can include the national and international environment modifications within their analysis.

To conclude, the auditor must verify the existence of record, control and supervision manuals in order to clarify every operation of the public debt's register and control, as well as show the fiscal contingencies that might become obligations for the government.



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# 5.- Reference Terms to Assess Debt Vulnerability and Sustainability

Two great groups of indicators are used to verify the status of public debt. Indicators in the first group measure vulnerability or the risk that the prevailing conditions might disturb the debt status; Indicators in the second group measure the government's capacity to face negative contingencies. The first are static indicators because they are based on observed data in fixed dates; the second are dynamic, since they are based on prospective exercises.

## 5.1.- Vulnerability Indicators

Vulnerability analysis demands the construction of indicators that measure and prevent any situation that might compromise a government regarding its debt payment. It deals with answering these basic questions: Can the government meet its obligations given the current conditions? Are there elements or phenomena that might disturb the prevailing situation? The following are among the static indicators:

- Total debt indicators

Indicators on foreign and domestic debt include maturity profiles,

payment schedules, sensitivity to interest rate and debt composition in foreign currency. These indicators relate foreign debt, exports, and total public revenue, among others, with the GDP. These are useful indicators to define the debt evolution and payment capacity, and provide signs on the decline of economic conditions that the government and the economy might face. Nevertheless, they have limits in the sense they provide information up to a defined date.

- o Indicators such as the ratios debt/GDP, deficit/GDP, financial costs/GDP, tax revenue/GDP, tax revenue/debt or total revenue/debt are valuable for the evaluation of the financial status of a government.
- o It is also important to know the rate of growth of total debt as compared to that of GDP.
- o Indicators of financial strength evaluate the quality of assets and out of balance positions, profitability, liquid assets, rhythm and quality of credit growth.
- o Other important indicators that must be considered to evaluate the soundness of the debt strategy are the average maturity (of debt contracts or bonds) and duration. The first indicator evaluates the average length of time to maturity, and the second evaluates the present value of cash flows necessary to meet the obligations.
- o The impact of exchange rates or interest rates fluctuations on the public debt will depend on the exposure to such variables. Therefore indicators of the structure of debt such as the share of foreign currency denominated debt or of debt that pays a floating or indexed interest rate, are relevant.

- External debt indicators<sup>3</sup>

- o External debt/GDP. It is a useful indicator for verifying payment capability.

<sup>3</sup> See IMF (2000), “Debt- and Reserve-Related Indicators of External Vulnerability” prepared by the Policy Development and Review Department.

- o The Ratio of external public debt service to income from exports is a useful measure of payment capacity because exports are an important source of foreign currency for the system's liquidity.
  - o A commonly used external debt indicator is the ratio of foreign currency denominated debt to total debt; it shows the need of obtaining foreign currency to pay the debt service and cover the imports needs.
  - o The ratio of international reserves to short-term debt is a useful liquidity indicator. This indicator measures the economy's capability to meet payments within a year. Guidotti's rule upholds this relation.<sup>4</sup> A significant stock of international reserves reduces the probability of not having access to credit in the world capital markets. It also contributes to the improvement of the country's grade as a credit receptor and at the same time it allows a lower external debt contracting cost.
  - o Weighted average interest rate.
  - o Structure indicators: Composition of external debt according to its market and non market share, according to time and debt acquired through credits; or according to instruments and to maturity terms.
- Domestic debt indicators
    - o Domestic debt/GDP. It is a useful indicator for verifying payment capacity.
    - o Structure indicators: the shares of foreign holders, indexed debt or foreign currency denominated debt into domestic debt, debt linked to the exchange rate, and short-term debt.

<sup>4</sup> See J. Onno de Beaufort Wijnholds and Arend Kapteyn (2001), "Reserve Adequacy in Emerging Market Economies", IMF Working Paper wp/01/143.

- o Average maturity and duration.
- o Weighted average interest rate. It must include market and non-market debt.

According to the International Monetary Fund (IMF),<sup>5</sup> vulnerability indicators encompass public and financial sectors, households and private enterprises. When economies are under stress, a sector's problems tend to affect the rest. Thus, doubts regarding a country's public deficit may provoke speculation on currency exchange levels, or undermine confidence on banks holding public debt titles, bringing about a banking sector crisis.

Among indicators used by the IMF on their overseeing activities, there are the following:

- Indicators regarding external and domestic debt, including maturity profiles, payment calendars, interest rates sensibility and composition in foreign currency. Ratios between external debt, exports and GDP are useful indicators to define the debt's evolution and capacity of payment. When a huge public sector debt is present, it is also important the ratio of debt to revenue income to assess the country's payment capacity.
- Indicators on reserves sufficiency are key in the assessment of a country's capacity to avoid a liquidity crisis. The ratio of reserves to short-term debt is a key parameter to assess vulnerability of countries which have access to capital markets.
- Financial solidity indicators are used to assess strengths and weaknesses of a country's financial sector. They encompass financial institutions capitalization, assets quality, out-of-balance positions, profitability and liquidity, and rhythm and quality of the credit's growth. They are used, for example, to assess sensibility of the financial system before the market risk, interest rate fluctuations and exchange rates.

<sup>5</sup> See J. Onno de Beaufort and Arend Kapteyn (2001), "Reserve Adequacy in Emerging Market Economies, IMF Working Paper wp/01/143.

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Private sector indicators regarding business debt levels and payment calendars are of special importance on assessing its impact on exchange and interest rate variations. Indicators related to leverage, profitability, cash flow and firms' financial structure that might show difficulties in honoring their financial obligations affecting the economy as a whole, are also relevant.

The SAIs could ask the governments for the construction of a thoroughly complete indicator system to watch over the vulnerability of its debt and give priority to the risk administration. Strategies and sound practices may not only contribute to the reduction of fiscal vulnerability, but also to reduce the service costs, with the corresponding positive effects on debt sustainability.

These indicators must consider contingent liabilities with high materialization probability, such as pensions, guarantees, judiciary resolutions, financial rescues, etc.

It is also important that auditors verify that debt managers have established mechanisms to detect the external private debt maturity level and profile. Although the responsibility on this debt is not of their concern, this information might prove of the utmost usefulness to detect possible pressures on foreign currency demand, and therefore, in macroeconomic equilibriums.

## **5.2.- Sustainability Indicators**

The continuous analysis of debt sustainability is of the utmost importance, as well as the simulation of debt's dynamic trend when faced to problematic scenarios or stress situations. Performance audits must seek diverse alternatives that allow the measurement of the governments' fiscal sustainability, which, on its simplest conception, refers to whether the present value of its future revenues is greater than its expenditures, including debt service. Starting from this concept, simple references can be defined that allow monitoring the public finance status.

The measurement of sustainability has the purpose of answering whether the government may keep the same path of expenditures and revenues or if it will have to conduct an adjustment to keep the debt constant, as

a proportion of GDP. Indicators are designed to answer questions such as: Can the current fiscal policy be kept without an explosive growth of public debt? Does the government need to increase taxes or decrease expenditures to avoid an explosive debt trend?

Sustainability indicators are estimated, first, from a central scenario based on the current economic conditions. The analysis performed to know whether the government will be able to meet its obligations uses a set of macroeconomic variables, consistent with the current state of the economy. Nevertheless there is the possibility or the risk that those variables might undergo major changes. Therefore, there must be an evaluation of debt sustainability in the presence of these changes. In this way, it will be possible to tell whether the government will be able to meet its obligations, even in unfavorable situations.

The starting point of the sustainability analysis is the government budget constraint; the present value of its future revenues must be equal or greater than its expenditures, including debt services. According to Blanchard<sup>6</sup>, *ceteris paribus*, fiscal policy is sustainable if real debt does not grow faster than the interest rate. That is equivalent to say that real debt with respect to the GDP would not grow faster than the (positive) difference between the interest rate and the rate of growth of the economy.

Besides debt and primary deficit, both as GDP percentages, sustainability analysis departing from the government intertemporal budget constraint, must involve other macro-economic indicators. The assumption of certain values for these variables generates a base scenario in which diverse indicators may be presented. One of them is the estimated necessary primary surplus to keep debt constant. The accumulation of interests increases debt, so in order to keep it constant, the increased interests must be compensated with a primary surplus of the same magnitude. Thus, the indicator shows the amount that the primary surplus must be in order to compensate the interests payments and, therefore to keep the debt constant. The difference between the estimated surplus and the expected one is a measure of the required fiscal adjustment to reach a sustainable path. This analysis demands the aforementioned assumptions about the macro-economic variables because the amount of interests and

<sup>6</sup> See Blanchard, Oliver J. (1990) "Suggestions for a new set of fiscal indicators", OECD. Working Paper N° 79.

the debt as a proportion of the GDP depend on them. This singles out the importance of having forecasts on the behavior of fiscal variables, such as public revenues and expenditures.

Talvi and Végh<sup>7</sup> offer a variation of the aforementioned indicator to evaluate fiscal sustainability. They focus on the difference between real interest payments for the initial debt and the permanent primary surplus. Thus, if the difference equals zero, fiscal policy will be sustainable; if it is positive, the planned trajectory of revenues and expenditures will not meet the inter-temporal budget constraint, because it will not be enough to cover the interest payments. In order to facilitate the analysis, a constant primary surplus is assumed. Even though these exercises require several assumptions to simplify its valuation, the generated indicators offer a reference about the direction of the needed modifications on the fiscal policy instruments

In another variation of this kind of indicators derived from the budget constraint, Blanchard suggests the evaluation of the difference between the tax rate that assures debt sustainability and the observed tax rate. If this difference is positive, it means that an adjustment implying a tax increase or an expenditure restraint will be necessary. The larger the difference, the larger the adjustment required, in order to avoid a crisis or default. Additionally, it is important to consider the initial value of the tax rate, because it is more difficult to increase taxes when departing from elevated rates.

The described sustainability indicators must go along with an analysis that considers different macro-economic scenarios. This is of the utmost importance, because it is possible that measurements based on the expected scenario, or that consider variables in their long-run level, show sustainable scenarios, but that changes in any macro-economic variable, such as the rate of growth of GDP or the interest rate, may cause such a deterioration of the debt level that can end up in a crisis. Therefore, it is necessary to analyze the debt trend in several environments.

<sup>7</sup> Talvi, Ernesto and Carlos Végh (2000) “La viabilidad de la política fiscal: Un marco básico”, en Ernesto Talvi y Carlos Végh, eds., ¿Cómo armar el rompecabezas fiscal? Nuevos indicadores de sostenibilidad, compilado por Banco Interamericano de Desarrollo, Washington, D.C.

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By means of stress tests, it is possible to assume a recession and verify the debt trend for a certain period. Shocks in interest rates can be simulated, as well as changes in the prices of exported raw materials, exchange rates, or the materialization of contingent liabilities. This way, market or credit risks are incorporated into the study.

The aforementioned techniques are commonly used by rating agencies, investment banks and several international agencies, to evaluate the position of public finances. In particular, the International Monetary Fund promotes the use of these indicators to examine the fiscal authority's behavior.

The evaluation of debt sustainability is necessary in order to learn whether the government will be able to meet its debt commitments, according to a certain expenditure and revenue path, and under certain assumptions on the main macro-economic variables. Besides, it allows the determination of the magnitude of a fiscal adjustment needed in order to return to a sustainable situation.

Debt management comprises the main financial obligations controlled by the central government. Therefore, debt managers and the central bank authorities must agree in the objectives of the debt management policy, as well as those of the economic, fiscal and monetary policies, given the existing interdependence among the diverse instruments that are used. Also, it is necessary to link the debt management to a clear macroeconomic framework in order to assure the sustainability of the level and the rate of public debt growth.

In this sense, it is indispensable to bear in mind the contingent liabilities for these forecasts. One of the concepts that have caused the deepest crisis in different countries is precisely contingent liabilities. Events arising unexpectedly require resources which were not originally considered, might change completely the scenarios which the debt sustainability was based upon.

Every assessment and analysis must be made by those responsible for the debt management, and SAIs must verify that these assessments are being made permanently and thoroughly, and that their outcomes prove the debt sustainable.

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An adequate debt structure reduces crisis risks, but it must be accompanied of correct fiscal and monetary policies. If the macroeconomic policy context is not satisfactory, even an adequate debt management is not enough to prevent a crisis. Therefore, public debt policy must be related at least with:

- Economic policy in general, because of the effects of public debt on the resources allocation;
- Monetary policy, because of the effects of public debt on monetary base;
- Fiscal policy, because of the need of equilibrating the fiscal burden distribution among present and future contributors, and make sure that debt service and repayment are sustainable;
- Currency exchange and payment balance policies, because if external public debt is an important share of national external debt, the distribution of the total public debt among domestic and foreign currencies, and among domestic and external debt-holders might have an influence on exchange and payment balance policies;
- Adequate international reserves level, in order to avoid exchange rate volatility.

Many of the debt crises of the eighties were due to huge debts contracted to cover the deficiencies of the governments' fiscal and economical policies.



# 6.- Behavior of the Actors

## 6.1.- Institutions

The evaluation of the institutions responsible for the public debt management is a very important task in a performance audit. The entities must count on an exceptional curriculum given the relevance that handling such resources has on the economic and social health. The history of the institution within the public administration must be analyzed: the way it was created, the task that it has performed through time, and the way it has faced problems and risks involved in the handling of resources; the controls and policies that it has established and the political and institutional management as part of the governmental structure throughout the history and the different governmental regimes.

Based on the above, the strengths and weaknesses of the institutions responsible for making the remarks and suggestions to assure an effective public debt management can be determined.

- Organizational Structure.<sup>8</sup>

There is no an accepted universal model that can be used as a paradigm for an organizational structure in charge of debt management and its related functions. However, in general, the bodies or entities must exist in order to perform all the required functions:

- o The executive body. It is the highest authority with regard to the indebtedness; it accomplishes the function of determining the policy, regulation and all the concerning to the decision-making, orientations and norms of general nature. Its members belong to the highest category: the minister of finance and / or the central bank governor.

<sup>8</sup> See the United Nations Conference on Trade and Development (UNCTAD), SIGADE program. Debt Effective Management. Pal Borresen & Cosio Pascal, The Role and Organization of a Debt Office. United Nations New York & Geneva 2002

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- o The control and coordination body. Its obligations are monitoring and surveilling. Its function is accomplished by means of the observation and application of norms and legal provisions. In addition, it must verify that the allocated resources are functioning in accordance with the adopted decisions by the executive body, to attain the defined strategy.

- o The operational bodies. The operational function can be divided into two stages: negotiation and service. The body in charge of the negotiation is responsible to perform the analysis of the loan conditions that are offered to the country in the different financial markets, as well as the different source of financing. Based on the global strategy, this body takes the responsibility of the negotiations with the aim of getting the best conditions.

The service body is responsible for the monitoring of the diverse loans in order to timely make the payments. This body should take into account the required fund provisions for every payment, and should verify the amounts of the transactions.

- o The registry body. This body compiles the detailed information on every loan, although not necessarily based on the accounting perspective, but on the statistical one; however, it is possible and acceptable the combined existence of an accounting and a statistical system.

- o The analytical body. The input of this body is the information that they receive from the recording body. Once the analysis has been made, this body has to submit it to the executive, service and control bodies. It is necessary to highlight that all the parts that integrate the debt

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management system have to perform an analytical function and that they must evaluate and analyze their respective activities in order to accomplish them in a rational way.

Whatever the location of these bodies may be and whichever body they belong to, the most important element is the existence of a good communication and cooperation among them.

- Debt office and administrative cost

Debt offices in different countries have adopted various organizational structures, in accordance with the degree of development, the markets in which they ask for financing, and even the type of debt they contract. Regardless of the above, the superior auditor must consider that a well organized debt management and administration system will improve the information flows, as well as its quality and, therefore, the suitability of the decision making to satisfy every country's needs.

It is the Superior Auditor's responsibility to confirm:

- o That the competence of activities be clearly defined by laws, norms and regulations, which have to be in constant evaluation in order to be updated in accordance with the current conditions.
- o That manual of functions containing a detailed description of the responsibilities and functions of the offices in charge exists.
- o The existence of a manual of procedures with a detailed description of the information flows.
- o That the corresponding organizational charts are available.
- o The existence of every public servant's task description.

- o That an accounting system that enables to identify the real cost related to the debt management functions exists.

- Administrative Cost

This evaluation can be done by means of a cost indicator, which is equal to the sum of expenses incurred in debt management divided by total debt; the result indicates the ratio of the management expense to total debt . With the help of this indicator, a benchmarking exercise can be carried out to verify whether it is above or below the world average.

It is important to clearly identify the administrative cost which is incurred in the debt management process, because it is common that the offices and entities in charge additionally carry out other activities. A good governmental accounting system must identify and label the functions and costs related to debt management in order to determine the administrative cost indicator.

Generally speaking, the debt administrative costs include the following concepts, which must be audited to assess their reasonability:

- o Direct cost derived from human and material resources, offices, and services.
- o Payment of commissions to the agents and institutions responsible for investing or those derived from the opening of credit.
- o Tax payments in the countries where debt is issued.
- o Security or guarantor's commissions.
- o Costs referred to a specific debt strategy.

## 6.2.- Human Resources

The objective of the policies that are designed in an institution with regard to its human resources consists of responding, in the best possible way, to the institution's necessities for the optimal accomplishment of the aims for which the institution was created. Therefore, the institution must be able to hire the most competitive people, and maintain the highest performance level of its human resources; that is why it must play the role of an attractive employer, by means of establishing human resources policies and the willingness to attain a high competitive level.

The efforts made by many governments to strengthen and plan their activities have given more attention to their employees' development, training and welfare. All of these have caused the establishment of the Civil Service.

Since the authorities responsible for the debt management may overlook internal controls, it is important to bear in mind that the public servants' integrity and ethical values are essential to maintain the effectiveness of the internal controls.

The behavior of public servants must follow clear ethical norms, which are widely disseminated as The International Code of Conduct for Public Officials.<sup>9</sup>

The other relevant element with regard to the personnel is the one related to their competence and training degree. The competence, knowledge and capacities, schooling, training, experience, and responsibilities have to be all reflected and defined in a document known as catalogue of positions and post profiles. The auditor must verify that every post counts on an adequate legal framework, which establishes the duties and responsibilities, and confirm that every public servant conveniently satisfies the profile of the post he or she is performing.

Performance measurement of debt managers is, up to now, a developing area, despite the advances registered. Up to what point should they be

<sup>9</sup> International Code of Conduct for Public Officials, Annexed document to the resolution A/RES/51/59 "Action Against Corruption" adopted by the 82nd plenary meeting of the UN General Assembly in December 12, 1996.

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held accountable given that debt vulnerability and sustainability may rest upon the economic management and the external environment faced by the country? Debts costs and terms that might be obtained in the international financial markets at a given moment, frequently rest upon the economic and political health of the country as a whole. However, the auditor may assess them based on tendencies shown by the debt regarding these concepts. For example, whether costs, terms, currencies, interest rates and contracted instruments show an increasingly favorable trend.

## 7.- Accountability

In country-members of the Organisation for Economic Co-operation and Development (OECD), the contemporary trend known as Quality of Service has had a great development. Its objective is to generate the required reforms in the public sector management to improve the capacity of reaction and the sensibility of the public institutions by means of requiring and encouraging an improved service delivery by government's employees. Citizens expect a permanent improvement of the public servants performance, so as to receive higher quality goods and services for their taxes.

The OECD Public Management Service, in its publication "Administration as Service, the Public as Client"<sup>10</sup>, suggests that the elements of a service sensible to the customer's requirements are the following:

- Transparency –customers must know how the administration works, who is the responsible for every duty, and which tools may be used in case situations are not as expected.
- Client participation –clients refuse to be treated as passive receptors of what they receive from the administration.
- Accessibility –clients must have physical access to the administration and they must be offered information prepared in a simple and clear way.

In accordance with the Quality perspective, the citizen has the right to demand a suitable and timely accountability in relation to all the public resources that are handled.

<sup>10</sup> *Administration as Service, The Public as Client*. Organisation for Economic Co-operation and Development, 1987. Available in <http://www.oecd.org/dataoecd/59/36/1910557.pdf>

Thus, the public debt performance audit must make use of the accountability indicators to verify that the reports in relation to the public debt management are transparent, timely and reliable. The suitable arguments in favor of the mentioned above are based on two premises which were taken from the document “Guidelines for Public Debt Management”<sup>11</sup>, prepared by the staffs of the International Monetary Fund and the World Bank. The two premises, used in this section and presented in a clear and concrete way, are the following:

- The operations will be more effective if the goals and instruments of policy are known to the public (financial markets) and if the authorities can make a credible commitment to meeting them.
- Transparency can enhance good governance through greater accountability of central banks, finance ministries, and other public institutions involved in debt management.

The actions that will contribute to achieve the Citizen-Client’s satisfaction are oriented to accomplish these two premises. The evaluation of this accomplishment must be a duty of the performance auditing, taking into account, among others, the next subjects:

- Clarity of roles, responsibilities and objectives of financial agencies responsible for debt management.
- The objectives of the debt management, explaining the measures on costs and the adopted risks, will be defined and revealed to the general public.
- The substantial aspects of the debt management operations will be disclosed.

<sup>11</sup> *Directrices para la gestión de la deuda pública*. International Monetary Fund / The World Bank, March 21st. 2001. Available in <http://www.imf.org/external/np/mae/pdebt/2000/eng/index.htm>

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- The public will be provided with the information on the past, current and foreseen budgetary activity, considering the financing and the information on the consolidated financial position of the government.

The financial position in the public sector must be regularly published, as well as the information on contingent liabilities.

The Fiscal Transparency Manual prepared by the IMF, proposes four areas in the supply of governmental information 1) annual budgetary coverage ; 2) budgetary execution and forecasting; 3) contingent liabilities, and quasi-fiscal activities; and 4) debt and financial assets.

In relation to public debt, the IMF indicates that the government must regularly provide the citizens with the information on debt structure and financial assets, in order to enable the evaluation of the capacity to finance its activities and to accomplish its debt obligations, and to estimate the level of revenues that will be required to meet all the existing obligations.



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