Fiscal Exposures: Implications for Debt Management and the Role for SAIs

INTOSAI PUBLIC DEBT COMMITTEE

February, 2003

Summary

1. Under the terms of reference laid down by the Governing Board of INTOSAI, the Public Debt Committee (PDC) was given the task of publishing guidelines and other information for use by Supreme Audit Institutions (SAIs) to encourage the proper reporting and sound management of public debt. Broadly, this document:

   - provides an illustrative overview of "fiscal exposures" that may have implications for long-term fiscal sustainability and thus for debt management; and
   - explores possible roles for SAIs with respect to these items.

2. Governments undertake a wide range of programs and activities that may draw on future resources and create fiscal instability. Many of these exposures, however, are not accounted or budgeted for; nor are they adequately captured in conventional fiscal analysis.[1] As a result, these items--by creating unanticipated increases in spending and debt financing--may encumber future budgets and constrain fiscal flexibility in ways that undermine a government's fiscal and economic policy objectives.

3. To help avoid fiscal instability and unexpected changes in financing needs, policy choices should be based on a complete picture of a country's fiscal health, including a comprehensive understanding of potential draws on future budgetary resources.[2] Likewise, successful debt management depends not only on controlling the level of outstanding public debt and the conventionally measured fiscal deficit or surplus, but on a comprehensive strategy. A comprehensive approach includes, but is not limited to, ensuring oversight of and the timely provision for contingencies, effective risk management, and the avoidance of large bail-outs of quasi-fiscal activities. These broader analyses should complement the traditional focus on debt level as the primary measure of government indebtedness.

4. Recognizing the scope of activities that may draw on future resources, the Committee has not attempted to develop a formal definition of debt. Rather, the Guidance on Definition and Disclosure of Public Debt[3] identifies and defines various elements of public debt, which might be appropriate to disclose as part of public debt.

5. Similarly, the concept of "fiscal exposures," by extending beyond conventional accounting and fiscal analysis, encourages a broad perspective on governmental programs and activities that may either explicitly or implicitly commit the government to future resource use. The aim is to provide a tool to help governments look beyond current financial position to the long-term consequences of today's decisions and the factors driving future demands. Governments should then be better positioned to effectively manage their cash flow and make more informed choices about future financing needs.

6. With complete and highly visible reporting of potential exposures, decisionmakers are better positioned to address future costs and help prevent unexpected changes in financing needs. However, improving awareness of fiscal exposures is not enough. In order to create incentives that support better decisionmaking about how to finance or avert such exposures, relevant entities should develop accurate cost measurements and integrate the measurements into financial reporting, budgeting, and other policy processes.

7. The Public Debt Committee believes SAIs can improve a nation's long-term fiscal health by taking an active role in ensuring the proper understanding and monitoring of fiscal exposures and their implications for debt management. Such work, however, is distinct from the auditor's traditional attestation function. While SAIs may play a valuable role by providing information and guidance with respect to fiscal exposures, it should be clear that this work does not carry the same level of assurance as financial audit work. Furthermore, to be effective in reaching beyond the questions of current financial condition and control, SAIs may need to develop new and more interdisciplinary approaches and methods.

8. Some of the possible roles a SAI may wish to fulfill with respect fiscal exposures include:

   - Audit and help improve understanding of exposures reported in financial reports;

   - Encourage sound reporting practices for fiscal exposures, including those not captured in conventional financial and budgetary reports. For example, SAIs may wish to play a role in,

     - the development a single portfolio of a country's fiscal exposures;

     - the use of frameworks such as the "fiscal risk matrix[4]" to help improve understanding of the scope and nature of a country's exposures;

     - the assessment of the expected costs and risks associated with specific fiscal exposures; and

     - the use of multidisciplinary tools, such as simulations, to illustrate and increase understanding of the county's long-term fiscal outlook.

- Encourage best practices for dealing with risk . SAIs may wish to play a role in improving the understanding and use of

  - risk assessment techniques;
  - risk mitigation approaches; and
  - risk management practices.

Objectives and Scope

9. This document explores key issues surrounding fiscal exposures that SAIs might consider in making judgements about a government's fiscal condition. Specifically, the document:

- describes and illustrates what is meant by "fiscal exposures;"
- considers the relationship between fiscal exposures, long-term fiscal condition, and debt management;
- identifies key issues and raises questions concerning the identification, assessment, reporting, budgeting, and monitoring of some key fiscal exposures;
- provides examples of approaches for the reporting, budgeting, controlling, and monitoring fiscal exposures; and
- explores possible roles for SAIs with respect to fiscal exposures.

10. This document does not, and is not intended, to prescribe one basis of accounting or one type of report to be used for disclosing potential draws on future resources or their potential implications for debt management. Rather, it is intended to provide an illustrative overview of this complex issue and explore the possible roles for SAIs.

11. In preparing this document, the Committee built on the foundation provided by INTOSAI's Guidance on Definition and Disclosure of Public Debt. In addition, the Committee took into account studies published by the PDC, other INTOSAI committees, various accounting standard-setting bodies, and international organizations with an interest in public debt matters.The Committee consulted with and drew heavily on the work of officials from the World Bank, the Organization for Economic Cooperation and Development (OECD) and the International Monetary Fund (IMF) . In order to gain perspective on approaches currently being used to address various types of fiscal exposures, the Committee reviewed budgets, financial statements, and other fiscal policy documents from select countries. The objective throughout was to provide an illustrative overview of key issues rather than to provide a comprehensive review.

What is meant by Fiscal Exposures?

12. The concept "fiscal exposures " provides an umbrella for considering the wide-range of responsibilities, programs, and activities undertaken by national governments that may draw on future resources. By extending beyond conventional accounting and fiscal analysis, the concept of fiscal exposures is meant to provide a broad perspective on governmental activities that may either explicitly or implicitly expose the government to future resource use. Rather than attempting to provide strict definitional guidelines, the aim is to provide a framework for better understanding a country's long-term fiscal condition.

13. Clearly, fiscal exposures vary significantly in terms of magnitude, likelihood of occurrence, and strength of the government's legal obligation. Exhibit I provides some examples of activities that may be relevant in assessing the long-term sustainability of a country's fiscal condition and debt management strategy.

Exhibit I:
Examples of Fiscal Exposures

- **Social security programs:** These programs vary significantly across countries but generally refer to programs established by statute that protect individuals against interruption or loss of earning power. Protection of the insured person and dependents usually is extended through cash payments to replace at least a portion of lost income. Employment-related systems generally base eligibility for pensions and other periodic payments on length of employment or self-employment or in some cases, the employment relationship itself. The amount of pensions and other periodic payments is usually related to the level of earnings before the event causing the earnings to cease occurred. Such programs are financed entirely or largely from contributions (usually a percentage of earnings) by employers, workers, or both, and are in most instances compulsory for defined categories of workers and their employers. Such systems are often referred to as *social insurance systems*.

- **Health-related programs:** Governments provide a number of health-related benefits. For example, health-related benefits may be provided as part of government employee compensation or as part of the national social insurance system.

- **Employee pension benefits:** Employee deferred benefits, particularly pension benefits, represent a potentially large government commitment. Pension benefits generally include all retirement, disability, and survivor benefit financed through a pension plan, including unfunded plans. These benefits differ from social insurance benefits in that pension benefits are generally considered to be exchange transactions because the employee performs service in part to receive the deferred compensation provided by the plan.

- **Insurance and reinsurance:** National governments may provide insurance to individuals and businesses against a wide variety of risks, ranging from natural disasters to bank and employer bankruptcies.

- **Loans and guarantees to third parties:** Government guarantees are a commonly identified form of contingency. These may include guarantees of borrowing, both by other public sector bodies and by private or quasipublic bodies, as well as guarantees for a variety of other purposes such as financing for exports and exchange rates.

- **Comfort letters and other forms of legally non-binding assurances:** Rather than providing an unequivocal guarantee, comfort letters tend to express the government's support of a venture, perhaps even a particular contact. As a result, the legal status and effect of comfort letters can be ambiguous.

- **Environmental clean-up costs:** National governments may take responsibility for the cost of removing, containing, and/or disposing of hazardous waste from property or equipment. Cleanup may include, but is not limited to, decontamination,

decommission, site restoration, site monitoring, closure costs, and post-closure costs. For example, a national government may operate nuclear facilities, and be required by law to cleanup any hazardous materials upon closing the facilities. In addition, national governments may assume responsibility for cleanup of toxic waste spilled by private sector entities.

- **Future maintenance and operating expenses associated with current decisions:** Future maintenance and operating expenses for government-owned facilities and other assets provide another example of costs that may constrain future flexibility. While the acquisition costs traditionally has been the focus of decision-making, the costs of operating, maintaining, and disposing assets can be substantial. Although decisions could be made to discontinue operation and maintenance of assets before the end of their useful lives, when a government acquires assets it is reasonable to consider it's the assets' costs of operation and lifetime maintenance costs.

These potential draws on future government resources originate from a variety of sources. They may be explicit or implicit; they may currently exist or be contingent on future events. Their ultimate costs may or not be reasonably measurable. Given this breadth, it is useful to think of fiscal exposures as lying on a spectrum extending from explicit legal liabilities to the implicit promises embedded in current policy or public expectations (Exhibit II). Along this spectrum, there is great variation in the strength of a government's legal obligation and the certainty of expected costs. Some, such as deferred employee compensation or environmental clean-up costs, are commonly reported as liabilities on the balance sheet. Others, such as pending litigation and undelivered orders, generally are reported in financial statement footnote disclosures as contingencies or commitments. Others are implied, such as future social insurance benefits, where the government's commitment is not explicitly stated and future costs generally are not accounted for directly in either the budget or the financial statements.

14. Although social insurance is perhaps the most widely cited fiscal exposure viewed as implicit in current policy or the public's perception of the role of government, numerous activities may create expectations for a claim on future spending. Governments are called upon to rescue losses and obligations of the central bank, sub-national governments or private entities of political or economic significance. Current spending decisions also may be the source of expectations for future spending. For example, the decision to purchase a building or other fixed asset inherently commits the government to the life-cycle costs associated with its future operation and maintenance.

    There may also be an expectation that partially funded capital projects will be completed. Furthermore, the earmarking of taxes or the establishment of trust funds may create an expectation of future spending for the designated purpose. Other government activities, such as privatization, may result in the implicit assumption that the government will assume responsibility in the event of problems.[5] Broader interpretations of fiscal exposures may consider areas where the government has already made a commitment, such as existing infrastructure, as creating an expectation of future spending to support the government's initial investment.

Exhibit II:

Spectrum of Fiscal Exposures

Source	Example
Explicit legal liabilities	• Public debt • Employee and veteran benefits payable • Environmental liabilities • Accounts payable • Insurance claims payable
Explicit financial commitments	• Undelivered orders • Long-term leases • Obligations under long-term contracts
Explicit financial contingencies	• Government loan and credit guarantees • National insurance programs (bank deposits, crop, flood, etc.)

Expectations for spending stemming from potential "moral" or "social" claims based on current policy and/or public perceptions of the role of government	• Future benefit under social insurance (old-age pension) programs **Life-cycle costs : the purchase of capital assets may result in future** operating costs and maintenance costs. • Bailout of large institutions: the national government may intervene to reduce losses from a default of the obligations of: - Sub-national governments; - State-owned enterprises; - Private entities of political/ economic significance. • Disaster relief: national governments normally assume responsibility for financial losses that arise from catastrophes and major disasters such as major earthquakes, hurricanes, terrorist attacks, and epidemics.

15. The broad spectrum of items that possibly could be considered fiscal exposures increases the challenge of determining how and to what extent to integrate more complete information on expected future costs into various financial reporting, budgeting, and policy processes. Many government responsibilities and activities that may draw on future resources do not meet the criteria for recognition on a country's balance sheet or inclusion in budgetary totals (deficit/surplus). Nevertheless, the potentially significant effects of these items on a country's future fiscal condition, and hence its debt management strategy, warrant disclosure and oversight.

Importance of Fiscal Exposures to Fiscal Sustainability

16. Historically, governments have used outstanding debt instruments as the primary measure of indebtedness. Yet, as illustrated above, governments undertake a variety of responsibilities and activities that may establish explicit or implicit claims on future resources. As a result, a budget surplus and/or low debt level does not necessarily signal a positive fiscal outlook. A country's debt management strategy, therefore, should consider not only a country's current financial condition,

but also its long-term fiscal outlook, including a comprehensive understanding of the magnitude and nature of potential draws on future budgetary resources.[6]

17. Failure to understand and address fiscal exposures can have serious consequences. Regardless of whether a government is legally required or simply forced by circumstances to provide funding, exposures can lead to periods of fiscal instability and unexpected changes in financing needs. In New Zealand, the issuance of guarantees during the 1970s to industries engaged in activities such as oil production resulted in high costs to future governments. Although the guarantees cost the issuing government nothing, as oil prices fell and industries withdrew, subsequent governments had to pay the costs of promises made by earlier governments. Similarly, in the United States, the savings and loan crisis of the late 1980s and early 1990s cost American taxpayers hundreds of billions of dollars (need to clarify relationship between the savings and loan crisis and fiscal exposures). In Brazil, debts incurred by provincial governments have been reported to cost its federal government about $74 billion during the 1980s and 1990s. Similarly, over the past ten years, Argentina, Colombia, Mexico, and Russia have been called on to bail out subnational governments when the latter's deficits or arrears became unsustainable.[7]

18. The privatization of infrastructure projects has also become a significant source of exposure, particularly for developing countries. As an example, Mexico's franchising of the construction and operation of highways in the late 1980s and the 1990s resulted in more than $6 billion of government funds being used to save private firms (and the banks that lent to them) from bankruptcy. In Thailand, the government was required to rescue a toll road project when the authorities declined to raise tolls in line with earlier agreements. When exchange rate guarantees associated with toll projects were called, the Spanish government was obligated for $2.7 billion.[8]

19. In periods of fiscal constraint, policymakers may favor off-budget and off-balance sheet activities that do not require immediate

cash outlays. In its transition to a market-driven economy, Hungary undertook new exposures in the form of guarantees and unfunded commitments.[9] In Italy, the railways have used government guarantees to raise money from the financial markets to cover deficits. A World Bank study found that although the Czech Republic was noted for maintaining balanced budgets, further analysis revealed an increased reliance on off-budget mechanisms, primarily in the form of loans and guarantees to the banking sector and railways.[10] In 1998, these hidden costs were estimated to be around 13 percent of GDP and the World Bank and the Czech government anticipated they would grow at a rapid rate.[11] Such hidden costs would drain resources from the economy and hinder budget flexibility.[12]

20. Even countries with a strong current position may be at risk due to increasing costs in large programs that are not fully captured in the national budget. For example, a number of countries face major challenges associated with an aging population that will result in significant spending pressures for public pension and health-related programs. In the United States, Congressional Budget Office (CBO) simulations show that the combination of longer life expectancy the aging baby boom generationand the relatively smaller working population would lead to deficits and debt. CBO estimates that spending on public pension and health-related programs would crowd out other government spending over the next several decades.

21. Many countries face current fiscal imbalances on top of pressures placed on public pension and health systems by aging populations. In Japan, for example, rising social security benefits payments and the looming task of preserving the solvency of the social security systems complicate the immediate task of improving the current financial position of the government.[13]

22. As these events illustrate, whether governments have adequate information and incentives to address the future cost implications associated with current policy choices is an important question. Some activities undertaken by a government, such as loans and guarantees, require a long-time horizon to understand the future implications of the government's commitment. In addition, since potential claims on resources may be derived not only from commitments of a strictly legal nature but also from moral and

social responsibilities, some exposures may only be apparent when the analysis is extended beyond the conventional balance sheet, budget, and debt measures.

23. For these reasons, the Committee believes that understanding fiscal condition and its implications for debt management must extend beyond an assessment of current financial position to include an assessment of the long-term sustainability of the country's fiscal policies. Complete and highly visible reporting of potential draws on a country's future resources can help position decisionmakers to address future costs and thus, help prevent unexpected changes in financing needs. Also, early warnings of potential costs (when these costs can best be controlled) may increase the policy options available. For example, changes to programs, such as social insurance, which affect large portions of the population may require time for individual beneficiaries to adjust to policy changes without undo disruption.

24. Consistent with their constitutional structure, governments should look for credible strategies, both within and outside the national budget, to provide adequate information about potential claims on future resources. SAIs, within the bounds of their authority, can provide leadership and oversight with respect to these issues.

25. The reminder of the paper will discuss some of the challenges associated with ensuring the complete assessment of fiscal exposures, including the development of:

- frameworks for identifying and classifying fiscal exposures;
- the technical expertise and methodologies to assess the expected costs of various exposures;
- methods of effectively integrating financial and other cost information on fiscal exposures into various policy processes; and
- SAIs role with respect to these issues.

Challenges in Identifying and Assessing Fiscal Exposures

26. The diversity of potential claims on a country's resources raises a variety of challenges. While financial reporting standards are useful for considering some claims, a government's responsibilities and policy commitments are much broader than those reported on the balance sheet. As such, the identification and assessment of fiscal exposures should not end with financial statement reporting. There is not, however, universal agreement on which, and to what extent, specific exposures should be considered. In addition, the complexity and uncertainty surrounding some exposures create significant cost measurement issues, which in turn, raise concerns about using these estimates as the basis of budget and other policy decisions.

Identifying and classifying fiscal exposures

27. A first and important step is for a government to identify, classify, and understand the full range of exposures that may create claims on future resources. Because of the breadth of exposures, it may be useful to use a framework that considers (1) the nature of the commitment i.e. whether an exposure is explicit or implicit and (2) the certainty of the event creating the exposure– whether the claim stems from an event that has already occurred or is contingent on some future event.

28. The matrix shown in Exhibit III, which draws heavily on the "fiscal risk matrix" developed by Hana Polackova-Brixi of the World Bank,[14] is a useful tool to provide a snapshot of a country's fiscal exposures. Even if estimates of the associated costs are not available, filling out the matrix should provide a valuable first step in understanding the range and nature of the government's exposures.

Exhibit III:

Matrix for Understanding Fiscal Exposures

Liabilities	Direct (Claim based on current events or continuation of current policy)	Contingent (Claim contingent on a future event)
Explicit: Government liability is recognized by law or contract	• Foreign[15] and domestic sovereign borrowing • Employee benefits payable	• Guarantees for nonsovereign borrowing • Insurance programs (for bank deposits, crops, floods, war risk)
Implicit: Expectations for spending stemming from potential "moral" or "social" claims based on current policies and/or the public perceptions about the role of government	• Future recurrent costs of public investment projects • Future public pensions (as opposed to civil service pensions) if not required by law • Future health care if not required by law	• Default of a subnational government or public or private entity on nonguaranteed debt • Cleanup of the liabilities of privatized entities • Bank failure (beyond coverage provided by insurance program) • Investment failure of a nonguaranteed pension fund, employment fund, or social security fund • Default of the central bank on its obligations (foreign exchange contracts, currency defense, balance of payments stability)

29. Clearly, the range of the items that potentially may draw on future resources creates definitional challenges. Financial reporting definitions provide a starting point in identifying fiscal exposures, but are not sufficient for a complete analysis. This is because these standards are established based on the concept of contractual duties, which represent only one source of potential draws on future government resources.

30. Financial reporting standards recognize obligations based on criteria of identifiability, probability and measurability. Using these criteria, a financial reporting distinction is made between liabilities, contingencies, and commitments. Liabilities generally arise from current events that are certain.[16] A liability is recorded on the face of the balance sheet when an item is identifiable, its occurrence probable, and its cost can be reasonably estimated. For example, a liability may be recorded for the future payment of a legal case decided against the government. On the other hand, contingencies arise from uncertain events that will be resolved in the future.[17] For example, a contingency may exist for pending litigation. Commitments are less clearly defined.[18] The term generally has been used to refer to contractual commitments that require the future use of financial resources. As an example, Canada's public sector accounting and auditing board defines financial commitments as obligations that become liabilities if terms of existing contracts, agreements, or legislation are met. Although a liability generally is not recognized when a contract is signed because the contracted goods or services have not been delivered, this transaction may be recognized as a commitment. Considerable room for interpretation exists within these definitional criteria, and it is often difficult to clearly distinguish among various types of obligations that may be recognized by financial reporting standards.

31. These definitional challenges expand when the concept of fiscal exposures is used to extend beyond what is traditionally captured for financial reporting purposes. Once exposures stemming from potential claims not based on legal obligations are considered, it becomes difficult to determine where to draw the boundaries for what should be considered a fiscal exposure. It is important to be comprehensive so as to provide a complete picture of the country's fiscal future. However, simply projecting the long-term costs of all current policies may be too broad to be useful in addressing specific policy decisions; such a broad construction also may imply that all current policies are immutable.

32. By providing a framework for distinguishing among various exposures, a matrix (like the one shown in Exhibit III) is a useful starting point for not only identifying a country's fiscal exposures, but for considering the appropriate approach for reporting, budgeting, and oversight. For example, direct

explicit obligations (liabilities) often are adequately captured in financial reporting systems because they are certain and can be measured; however, they may not be fully integrated into the budget and other policy processes. At the other extreme, because exposures stemming from implicit contingent claims are uncertain, they generally are not reflected directly in either the financial or budgetary processes, and may warrant the development of new approaches.

Assessing the expected costs of fiscal exposures

33. In addition to preparing a comprehensive list of a government's fiscal exposures is a useful starting point, conducting an assessment of the expected costs can be beneficial. Valuing the expected cost of exposures, rather than just reporting the maximum amount, provides policymakers with a better indication of the level of losses a government needs to anticipate. In addition, valuing the government's exposure, rather than simply reporting the maximum amount, allows for better comparison to cash subsidies.

34. Therefore, it would be beneficial if SAIs positioned themselves to help assess and monitor the potential costs associated with fiscal exposures. In some cases, this may require the development of technical skills necessary to support sophisticated methodologies such as econometrics and option pricing. In order to give a sense of the issues at hand, the following section summarizes some key issues and open questions surrounding cost assessment for a few common exposures.

Social security programs (Old-age pension programs): Assessing future claims for social security programs raises a number of conceptual and technical obstacles. The future costs for these programs may be greatly affected by (1) ability of the government to change the program and (2) the uncertainty surrounding key cost assumptions. Due to the uncertainty surrounding future costs, accounting standards generally do not recognize future social insurance benefits as a liability.

First, there is significant debate about whether future social security benefits constitute a claim on government resources. Some argue that the costs associated with future social insurance benefits should not be recognized because governments have the authority to change these programs. They point out that underlying laws establishing a claim to payment can be (and have been) changed by governments over time. Conversely, others argue that because social insurance benefits represent a social responsibility of the government and/or that there is high public expectation for future benefits, these future costs warrant consideration in the policymaking process.

In addition to disagreements about whether a claim exists, cost estimates of future benefits are uncertain. Estimates involve assumptions about numerous factors such as economic growth, inflation, unemployment, fertility rates, immigration, and mortality. Such assumptions may greatly affect estimated costs. For example, assumptions about future death rates have significant impact on the cost projections for the U.S. Social Security program. The estimated expenditures in excess of income for the valuation period from 2001-2075 varied from $2,980 billion to $5,574 billion based on which death rate assumption is used.[19]

Despite, these conceptual and measurement challenges, some countries have taken steps to estimate the long-term costs associated with their social security programs (old-age pension programs). A 1999 study by the Organization for Economic and Cooperative Development (OECD) found that 75 percent of the countries surveyed conducted regular actuarial estimates for their social security programs. However, only about 53 percent had a legal requirement to do so. Projections vary with respect to (1) the number of years included; (2) whether the social insurance system was assumed to open or closed to new participants; and (3) how estimation uncertainty was accounted for, i.e., whether different scenarios using alternative assumptions were produced, etc.

As an example, the United States estimates both short-range (10 year) and long-range (75-year) actuarial projections for social insurance programs. These net present value estimates serve to highlight the financing gap between anticipated contributions and expenditures. Because of the inherent uncertainty of estimates for 75 years in the future, three alternative projections are provided using different sets of economic and demographic assumptions to show the range of possibilities. These different assumptions can result in significantly different estimates of future costs. For example, the aggregate benefits under the "high cost" assumptions are estimated to be about two times those under the "low cost" assumptions. Projections based on "intermediate assumptions," which are considered the best estimates of expected future experience under current law are provided to help guide policymakers.

- **Employee pension benefits:** Various actuarial cost methods, which estimate future costs based on prior experience, can be used to calculate the liability for government employee pension benefits. While all acceptable actuarial methods recognize the cost of an employee's pension benefits during the employee's years of service, such methods recognize the cost in different patterns over time. For example, the "aggregate entry age normal cost" method is intended to produce a periodic pension cost that is a level percent of payroll.

  Consistent assumptions with guidance provided by an independent body is desirable. For example, in the United States, federal accounting standards state that the board that sets professional standards of actuarial practice should guide the selection of assumptions for federal pension programs. To the extent possible, it is also considered useful if assumptions are consistent among financial reporting, budgeting, and actuarial statements.

- **Health-related programs:** Assessing future health care benefits presents several unique measurement challenges. In general, these costs are more uncertain than pension

costs since they depend on 1) changing patterns of health care delivery and utilization and 2) medical care price trends. In addition, future costs will be affected by the interaction between government employee health coverage and health benefits provided by social insurance programs. Assumptions about these factors can have significant implications for estimates of future program costs.

- **Loans and guarantees to third parties:** Countries differ in their approach to measuring costs associated with loans and guarantees. Accounting standards generally provide an allowance for a portion of the principal that will not be collected. This allowance for uncollectible amounts generally is recognized when it is likely that loans will not be fully collected. The total loan amount on the balance sheet is net of this allowance amount, and a "bad debt expense" is recorded.

  Several countries, including the United States, the Netherlands, Sweden, and Italy, have adopted approaches aimed at more clearly reporting the cost of loans and guarantees. The United States, for example, has adopted a more prospective form of accrual measurement for both accounting and budgeting. Federal accounting standards for loans and guarantees now require an estimate of the present value of costs to the government for loans or guarantees. This is based on a comprehensive evaluation of future cash flows over the life of the loan or guarantee, including payments of interest, principal, fees, prepayments, defaults, delinquencies, and recoveries. The standard requires discounting the net cash flows at the government's borrowing rate on marketable securities.

  Advances are continuing in the development of techniques to analyze the risk associated with loans and guarantees. For example, sophisticated techniques based on financial derivatives have been applied to some government guarantees. Extending a guarantee can be thought of as equivalent to the government selling a put option to a lender, which gives the lender the right to put the

loan on the government. Work has been done applying the options pricing framework to value of federal loan guarantees granted to corporations[20] and to mortgages guarantees.[21]

Insurance and reinsurance: Like loans and guarantees, insurance programs involve a number of estimation challenges and are handled differently across countries. Financial reporting standards generally require a liability be recorded for an estimate of claims payable based on events that have occurred, including an estimate of claims that have been incurred, but not yet reported. However, although not certain enough to record as a liability under accounting standards, the government's risk exposure may be significantly greater than the claims payable at the end of a period.

Some countries have begun work to comprehensively assess the risk undertaken by insurance programs. In broad terms, the "risk assumed" by a government for an insurance program can be thought of as the difference between the actual premiums paid by the insured and the premiums necessary to fully cover losses inherent in the coverage provided. This difference between the full risk premium and the actual premium charged-"the missing premium"-represents a government's subsidy cost.[22]

The ability to generate complete and reasonable cost estimates of the "risk assumed" varies greatly across different types of insurance programs. Some such as life insurance programs are well grounded in actuarial science. The modeling for others, such as deposit insurance, is much more complex. In most cases, historical experience is an important factor in determining risk and, in some cases, more sophisticated methodologies such as econometrics and options pricing may prove useful.

As with loans and guarantees, the options pricing framework has been used to analyze the cost of government insurance programs. For example, deposit insurance can be thought of as a put option that gives a financial institution the right, though not an obligation.

This option is purchased from the government in exchange for payment of insurance premiums, and gives a bank or thrift the right to sell its deposit insurance liabilities to the government when the value of its assets falls below the value of its liabilities. Similar work has been done to extend the use of the options pricing framework to estimates of the government's liabilities resulting from pension insurance.[23]

Cost estimates for the United States pension insurance program illustrate the different signals that may be provided to policymakers by various estimation techniques. During the development of the FY 1997 budget, the cash budget reported positive net collections of $1 billion and the financial statements reported a liability of $10.4 billion for the net present value of future benefits.[24] At the same time, probabilistic modeling conducted by the Office of Management and Budget estimated costs of future claims in the range of $30-$60 billion.[25]

- **Environmental clean-up costs:** Clean-up costs are affected by several factors, such as inflation and changes in laws and technology. These estimates, therefore, can be expected to change over time. In some countries, accounting standards require estimates of clean-up costs associated government property, plant or equipment. For example, in the United States, federal accounting standards define environmental clean-up costs as the cost of removing, containing, and /or disposing of (1) hazardous waste from property or (2) material and/or property that consists of hazardous waste at permanent or temporary closure or shutdown of associated property, plant, and equipment. Cleanup may include, but is not limited to, decontamination, decommissioning, site restoration, site monitoring, closure, and post-closure costs. Estimates of clean-up costs are to be based on the current cost to perform the cleanup assuming existing laws, technology, and management plans. An alternative is to base estimates on future costs, factoring in expected inflation and discounting this amount to current dollars. [26]

- **Future maintenance and operating expenses**: The purchase of an asset may create an expectation that

funding will be provided to maintain and operate the asset over time. An estimate of the total life- cycle cost of an asset includes not only all initial direct and indirect acquisition costs, but all periodic or continuing costs of operations and maintenance over the asset's expected useful life and any costs to decommission or dispose of the asset.

Backlogs of maintenance critical to effective operations also may result in draws on future resources. In the United States, deferred maintenance is measured for financial reporting purposes. Under these standards, deferred maintenance is defined as maintenance that was not performed when it should have been or scheduled maintenance that was delayed or postponed. It includes the estimated cost to bring Government-owned property to an acceptable condition, but specifically excludes the cost of expanding the capacity of assets or upgrading them to serve needs different from those originally intended. An assessment of deferred maintenance is to be based on management's determination of an acceptable level of service and condition for assets. The standard recognizes that determining maintenance needs is a management function and accordingly allows for management flexibility and judgement within broadly defined requirements. *

Approaches to Reporting, Budgeting, and Risk Mitigation

35. Even when estimates of expected costs are available, the challenge of how to best integrate this information into various policy processes remains. Some countries report that despite improvements in financial statement reporting, it has been difficult to integrate financial statements into budgetary decision-making –the center of the policy process. For example, a review of financial management in Australia found that although accrual-based financial reports were being produced, these reports were not being used for budget and policy decisions, at least in part, because appropriations were still cash-based. Similarly, the United States has experienced challenges in determining the most appropriate ways to effectively integrate financial statement

and other cost and performance information into the budget and policy process. World Bank economist, Hana Polackva-Brixi notes that "an accrual-based accounting system without accrual budgeting is neither necessary or sufficient to ensure adequate policy consideration for contingent liabilities and other fiscal risks."[27]

36. The following section looks at some steps taken by various countries to improve the reporting, budgeting, and monitoring of various fiscal exposures.

Reporting of fiscal exposures

- **Reporting of liabilities on financial statements:** An increasing number of governments are now preparing accrual-based financial statements, which report liabilities. The liability section of the balance sheet captures items such as future employee pension benefits, environmental clean-up costs, and insurance claims payable. Contingent liabilities are recognized on the balance sheet through a provision for expected losses only when it is deemed the amount of the loss is probable and can be reasonably estimated. Some contingencies, which do not meet these criteria, are not recognized directly in the body of the financial statements but rather, are disclosed in the footnotes to the statements. These disclosures generally include contingencies if the future confirming event is more than remote, but less probable. These disclosures do not, however, include contingencies that are considered remote.

- **Financial disclosure of contingencies and commitments:**
  Some countries have taken steps to improve the disclosure of contingencies and other commitments. The IMF's "Code of Good Practices on Fiscal Transparency" provides that statements should be published with the annual budget that provide a description of the nature and fiscal significance of contingent liabilities as well as other items such as tax expenditures and quasi-fiscal activities.[28]

New Zealand financial statements (or Budget support docs) include a both a Statement of Commitments and a Statement of Contingencies. The Statement of Contingencies includes a listing of both quantifiable and non-quantifiable contingent liabilities. Quantifiable contingencies, such as guarantees, indemnities, and uncalled capital, are reported at the maximum possible amount of repayment. A description of all contingencies as well as a discussion of changes in contingencies is provided.[29] Likewise, Australian budget documents for 2002-2003 include a statement of fiscal risks that depicts quantifiable and unquantifiable contingent liabilities and an "Intergenerational Report" that presents long term economic and budgetary projections.[30] Details of contingent liabilities and other fiscal risks are separately discussed. In monthly reports concerning public debt, Sweden's National Debt Office accounts for guarantees and risks exposed by loans issued by the central government. Furthermore, in order to shield the central government's budget from guarantee risks, the Swedish National Debt Office uses fees collected from guarantee beneficiaries to build a reserve fund.[31] In the United States, the notes of the consolidated financial statements of the federal government include information on contingent liabilities, commitments, undelivered orders, and long-term leases. The Bulgarian government has developed a comprehensive register of guarantees and has introduced the regular publishing of the aggregate amounts of guarantees outstanding along with the government debt figures. The register covers all external and domestic guarantees, indicating the beneficiary, creditor, project title, amount, currency, and debt repayment schedule. [32]

- **Disclosure of future social insurance costs:** As noted above, the financial reporting of social insurance commitments has been the subject of debate. Some of the costs associated with social security--benefits currently due and payable to or on behalf of beneficiaries at the end of the period—generally are reported as a liability in the financial statements. However, this treatment does not

capture the potential future costs associated with social insurance programs.

Some countries also include long-term actuarial estimates of future contributions and expenditures within financial or trustee reports. In the United Kingdom, the Government Actuary must report to parliament every five years on the National Insurance program's outlook for about the next 50 years. These reports consider the effects of changes in the demographic structure of the population and provide calculations of the contribution rate necessary to maintain certain benefit levels for each future year. Reports also are required by Parliament whenever there are changes to the program's benefit rates or contribution structures. In the United States, federal financial accounting standards require the disclosures of "supplementary stewardship" information for social insurance programs. Such disclosures include a description of the program, how it is financed, how benefits are calculated, and its financial and actuarial status. In Australia, the Charter of Budget Honesty of 1996 requires that a document be prepared every five years showing the intergenerational transfers in the current social security systems over the next 40 years. A 1999 OECD survey, however, found that only about 10 percent of countries surveyed reported an actuarial estimate for social security (old-age pensions) in its financial statements or the notes to its financial statements.

Publishing sensitivity analysis can be helpful in increasing understanding of the uncertainty surrounding estimates of the future costs of social insurance programs. For example, the U.S. government's financial report includes a table that demonstrates the sensitivity of cost estimates to various assumptions such as the future reductions in death rates, fertility rates, the real-wage differential, etc.

- **Other Disclosures:** Some countries have worked to disclose the range and nature of fiscal exposures. For example, in a joint effort with the World Bank, the Czech government has taken steps to classify and publicly report

fiscal risks and the implications for future fiscal condition. The government included an inventory of hidden forms of debt in its 1999 budget. The “fiscal risk matrix” described earlier has also been prepared for South Africa, Hungry, and Bulgaria.

New Zealand has taken steps to disclosure potential implications associated with policy choices on budget forecasts. “Specific fiscal risks” are disclosed in published Economic and Fiscal Updates, as required by the Fiscal Responsibility Act of 1994. These reports also describe specific fiscal risks other than contingent liabilities. Specific fiscal risks are described as a category of government decisions or circumstances that may have a material impact on the fiscal position. These risks are not included in the main forecasts because their fiscal impact cannot be reasonable quantified, the likelihood of realization is uncertain, and/or the timing is uncertain. Risks are to be reported if they have an expected cost or savings of over $10 million in any one of the forecast years and either (1) reflect Government decisions or legislative commitments with uncertain fiscal consequences or timing; or (2) are being actively considered by the Minister of Finance and responsible Ministers; or (3) are decisions which have been deferred until a later date. The Act provides exceptions where it is determined by the Minister of Finance that disclosing a risk is likely to (1) prejudice the substantial economic interest of New Zealand; or (2) prejudice the security or defense of New Zealand or the international relations of the government; or (3) compromise the Crown in a material way in negotiation, litigation, or commercial activity; or (4) result in a material loss of value to the Crown.

The extent to which implicit claims should be reported is a subject of debate. Some argue that transparency of all exposures is an important and necessary step toward understanding and mitigating risk. Conversely, others argue that the public disclosure of implicit exposures

could greatly increase moral hazard. For example, while the IMF "Code of Good Practices on Fiscal Transparency" strongly promotes disclosure, it recommends the exclusion of implicit guarantees, such as the possibility that a government may in the future bail out a public enterprise or private sector bank, from disclosure in statements on contingent liabilities.

- **Preparation and disclosure of the long-term fiscal outlook:** A number of countries are now preparing and publishing longer-range fiscal and budgetary outlooks. For example, in the United States, the Congressional Budget Office prepares long-range estimates of the budgetary and economic outlook. In New Zealand, the Fiscal Responsibility Act of 1994 requires the publication of a Fiscal Strategy Report that is aimed, in part, at increasing attention to the long-term implications fiscal policy. The report includes "progress outlooks" which project fiscal trends over a ten-year period at least. Different scenarios illustrate what the fiscal position might look like under a range of economic and fiscal policy assumptions. A 1999 OECD survey, however, found that only about 14 percent of the countries surveyed reported that the government regularly produced a report on the long-term (10-40 years) outlook for public finances as a whole.[33]

Budgeting of Fiscal Exposures

37. Some countries have taken steps, such as the use of accrual estimates, to increase the recognition of the expected costs of fiscal exposures directly in the budget and, in some cases, to establish reserves. Budgeting for the potential costs of fiscal exposures represents a tradeoff between the opportunity cost associated with forgoing using these resources to increase spending (or to cut taxes) and the benefits of promoting fiscal stability and government credibility by more directly recognizing the potential costs of these exposures. For illustrative purposes, the following section provides examples of ways countries have begun to incorporate information on fiscal exposures into the budgetary process.[34]

- **Budgeting for loans and guarantees:** Several countries, including Italy, Sweden, the Netherlands, and the United States, have take steps to improve the budgeting for the future costs of issued loan guarantees and direct loans. In the United States, an explosion of loan guarantees during the 1980s and the recognized biases associated with cash-based reporting prompted a change in budgetary treatment of direct loans and guarantees in 1992. The Credit Reform Act of 1990 addressed the shortfalls of cash-based reporting for credit programs by requiring that the budget include the estimated cost to the federal government over the entire life of the loan or guarantee, calculated on a net present value basis. The estimated cost of a direct loan or loan guarantee is now the sum of all expected costs – including interest rate subsidies and estimated default losses—and all expected payments received by the government over the life of the commitment, discounted by the interest rate on Treasury securities of similar maturity to the loan or guarantee. Similarly, the Netherlands now treats the net present value of guarantees as actual expenditures. In Sweden, income from guarantee fees and cash received from previously non-performing guarantees are to be put into a guarantee reserve. This reserve is intended for the long-term coverage of credit losses and other costs associated with guarantees. Italy also has developed a mechanism (under recent export credits legislation) which requires a provision to be established for every loan guarantee extended since October 1999. The funds for provisioning--based on the risk associated with each specific recipient country—are supplied through the government's budget. In addition, the Philippines and Colombia have worked on establishing ways of valuing their exposure from guarantees and creating fiscal reserves against it.

  Some countries have developed budgetary controls aimed at mitigating the amount of risk assumed by the government. For example, the Government of Hungary has established a set of budgetary controls for guarantees that include setting a limit on the volume of guarantees to a ratio of total budgeted state revenues. For each explicit

contingent liability, the annual budget is required to show the probabilities of default and the expected payments due.[35] The Netherlands also has established a budget limit on the total permitted amount of outstanding guarantees.

- **Budgeting for pensions:** Some countries, including Iceland and New Zealand, have used accrual budgeting to highlight the long-term consequences associated with public sector employee pension programs.[36] In Iceland, accrual budgeting showed the consequences of wage negotiations on future public sector employee pension costs. Officials noted that the full costs of these agreements were not fully realized by the public until the adoption of accrual budgeting led to recognition of the liability in the budget estimates. Similarly, New Zealand officials cited accrual budgeting as a factor in the discontinuance of defined benefit public employee pensions noting that under accrual budgeting pension liabilities were recognized on the balance sheet and the expense incurred was included in the budget.

  Canada's main measure of budgetary position (deficit or surplus) –called the budgetary balance—is calculated on a modified accrual basis that includes the accrued costs of public sector pensions. The United States recognizes a portion of the accrued costs for its employee pension programs in the budget, but does not include these costs in the budget totals. For civilian employees hired since 1984 and military personnel hired since 1985, the full costs of pension benefits are recognized in the budget-at the program level-as they are earned. However, because the program level accrued amounts are offset by intragovermental transactions to the associated retirement funds, the measurement of the budget deficit or surplus is not affected.

- **Budgeting for insurance:** Accrual budgeting also has been cited as beneficial for addressing costs of insurance programs. New Zealand officials cited the recognition of the accruing cost of providing accident coverage as key to efforts to reform its Accident Compensation program. Under

accrual budgeting, the expense associated with the future costs of current accidents reduced the budget surplus by NZ$500 million. The United States has explored the use of accrual budgeting using risk-assumed estimates for federal insurance programs.

- **Budgeting for Social Security:** Despite concerns about the uncertainty surrounding cost estimates, some have suggested the use of accrual measurement in the budget for social security programs. However, to date none of the countries reviewed for this paper budgets for the costs of future social insurance benefits.

- **Budgeting contingency reserves:** Some countries provide in the budget, as a separate item, annual amounts to cover any urgent or unforeseen expenditures, including contingent liabilities. In general, criteria are established which must be met before obtaining these funds. For example, to prepare for possible fiscal risks, the Hungarian government has created multiple reserve funds, such as a deposit insurance reserve fund, a guarantee fund for pensions, and a state guarantee fund. A commission within the Colombian government is considering the creation of a national fund to reserve against contingent liabilities. Similarly, some countries establish a reserve fund to meet major contingencies such as a major natural disaster.

  Canada has established a “contingency reserve” within the annual budget. The intent of the reserve is to cover risks arising from unavoidable inaccuracies in the models used to translate economic assumptions into budget forecasts and risks arising from completely unpredictable events such as earthquakes. It is not intended to be a source of funding for new government initiatives. If the funds are not needed, they are used to pay down the public debt. The Government determines the amount of the contingency reserve after consultation with private sector economists.

- **Budgeting for future operating and maintenance costs:** Some countries have cited accrual budgeting as

a useful mechanism for increasing the attention given to the future costs associated with asset purchases. Under some forms of accrual budgeting, annual budgets include depreciation and cost of capital charges over the life of the asset. Some accrual budgeting proponents expressed the view that because depreciation and the capital charges will be included in future budgets, an asset no longer appears as a "free good" after the initial purchase. Other countries, such as South Africa, have developed a medium-term expenditure framework that automatically includes the financing requirements for operations and maintenance in the fiscal outlook and future budgets.

"Best Practices" for Dealing with Fiscal Risk

38. Generally speaking, risk assessment and mitigation, including budgeting for risks, by governments is in its infancy. Alternative approaches for mitigating risk may range from improved transparency (to help support informed decision-making) to the establishment of direct controls over the amount of risk assumed by the government.[37] The following provides some examples of steps taken by governments to better understand and mitigate risks assumed.

- **Improved transparency:** Several countries have taken steps to increase the transparency of fiscal exposures facing their governments. For example,

  - **Preparation of a matrix of fiscal exposures:** As mentioned earlier, an important first step is to identify and improve the understanding of a country's fiscal exposures. The Fiscal Risk Matrix[38] developed by Hana Polackova-Brixi has been prepared for a number of governments, including South Africa, Hungary, and Bulgaria[39], to identify risks as well as possible policy remedies that might be applied. In some cases, filling out the Matrix has been credited with making governments aware of some significant risks that were previously unknown.

- **Publishing supplemental information on fiscal exposures:** Publishing supplemental information on fiscal exposures facing the government can be used to increase awareness and understanding of these issues. Although not providing any form of direct control, for most countries, including a supplemental listing of fiscal exposures with budget documents, even if cost estimates are not available, would improve the transparency and perhaps the incentives to address these issues.

➢ **Establishment of direct control mechanisms:** In addition to making fiscal exposures more transparent, some countries have taken specific steps or established procedures to limit government exposure. For example,

- Canada has introduced a set of principles to regulate its risk associated with loan and loan guarantees. One aspect of this framework is that before a loan or guarantee is tendered, the department must analyze the project and demonstrate that it could not be financed without government assistance. In addition, any new loan or loan guarantee program must be approved by the Minister of Finance and authorized by the Parliament[40].

- Another approach may be to develop a control mechanism over the aggregate level of risk assumed by the government. Under such an approach, policymakers could be required to vote on any action that would increase the cost of the government's aggregate fiscal exposure. While this approach has the advantage of providing a mechanism for control over the aggregate exposures facing a government, issues such as estimation difficulties, the susceptibility to manipulation, and other tracking problems, raise important, perhaps insurmountable, implementation concerns.

➢ **Development of Risk Management Systems:** Government can benefit from the development of risk management

systems and improved techniques for assessing specific risks. Establishing risk-focused processes can help governments better understand fiscal exposures and thus, help prevent them from unknowingly accepting risks that may jeopardize future budgets. For example,

- The Colombian government conducted a risk-focused assessment for a toll road project that determined that the greatest exposures were from the market risk associated with traffic volume and construction overruns. Early recognition of these risks was credited with allowing the Government to improve its risk management techniques and contract specifications. [41]

- In March 1995, the government of the Philippines issued a consultative document aimed at better management of its contingent liabilities. The policy called for the unbundling of risks to better distinguish between core guarantees that were viewed as appropriate for government support to be provided by the government and those guarantees that were viewed as temporary. In addition, the policy recommended withdrawing certain guarantees and limiting others to 80 percent of total project costs to increase risk sharing.[42]

Possible Roles for the SAI

39. The Committee believes that ensuring proper understanding and monitoring of the range of fiscal exposures clarify a country's long-term fiscal sustainability and the implications for public debt. Therefore, SAIs may wish, within the limits of their powers and responsibilities, to encourage their governments to adopt sound practices for the assessment, financial reporting, budgeting, and oversight of a country's fiscal exposures. SAIs also may wish to be aware of and support the adoption of "best practices" for dealing with risk.

40. The Committee recognizes that SAIs' work in the area of fiscal exposures must conducted in accordance within the institutional structure and implementation constraints of their countries. The committee acknowledges that undertaking programs and

other responsibilities is generally matter of policy determined through the normal constitutional or policymaking processes within the country concerned. Furthermore, in most countries, there is some limitation on the right of the SAI to examine or question such policy judgements. Thus, the nature and extent of the SAI's powers and responsibilities in this regard will depend on the political and constitutional circumstances in the country concerned. SAIs, therefore, will need to exercise their own judgement when considering the nature and extent of the examinations that they can undertake and the reports they can prepare on fiscal exposures. In addition, the task of identifying and understanding the implications of fiscal exposures on long-term fiscal condition opens a new field of oversight for SAIs. Given the complex technical and conceptual issues associated with fiscal exposures SAIs may need to develop necessary skills both internally and across their governments.

41. Some actions a SAI may wish to take with respect to fiscal exposures include:

- **Audit and help improve understanding of exposures reported in financial reports:** Most SAIs have the primary responsibility for the audit of information disclosed in the government's financial statements. These statements provide a foundation for considering a country's long-term financial condition. Within their legal authority, SAIs may wish to work to ensure the quality of the information on exposures provided in these statements and to improve understanding of how these reports can be useful in assessing a country's long-term fiscal sustainability.

- **Encourage sound reporting practices for fiscal exposures, including those not captured by conventional financial and budget reports:** By assessing and providing information on fiscal exposures SAIs may play an important role in increasing awareness among policymakers, the markets, and the public of these issues. Doing so, may also help create incentives to address the financing of these exposures or to avert them entirely. Within their legal authority, SAIs may wish to take an active role in considering: (1) the appropriate

treatment and oversight for exposures that extend beyond financial reporting requirements for liabilities and footnote disclosures and (2) ways to effectively integrate financial and other cost information for fiscal exposures into the budget and other policy processes.

These activities could involve both helping to improve the understanding of the country's long-term fiscal condition on an aggregate basis and analyzing and monitoring individual fiscal exposures. For example, where appropriate, SAIs may wish to play a role in:

(1) the development a single portfolio of a country's fiscal exposures;

(2) the use of frameworks such as the "fiscal risk matrix" to help improve understanding of the scope and nature of a country's exposures;

(3) the assessment of the expected costs and risks associated with specific fiscal exposures; and

(4) the use of multidisciplinary tools, such as simulations, to illustrate and increase understanding of a county's long-term fiscal outlook.

- **Encourage "best practices" for dealing with risk:** Within their legal authority, SAIs also may wish to work to help support the understanding and implementation of appropriate risk mitigation techniques. SAIs may wish to consider whether programs are effectively designed to mitigate the level of risk assumed by the government. Doing so may require SAIs to position themselves to offer insights on mechanisms such as risk sharing, the use of re-insurance and the establishment of risk-based premiums. For example, SAIs may wish to play a role in improving the understanding and use of
  - Risk assessment techniques;
  - Risk mitigation approaches; and
  - Risk management approaches.

42. Some SAIs have conducted reviews of potential exposures on future resources beyond that required as part of their financial audit responsibilities. For illustrative purposes, the following section summarizes some oversight activities undertaken by select SAIs with respect to various types of fiscal exposures.

- **Oversight of loans, guarantees, and insurance:** Some SAIs have taken steps to improve the understanding and oversight of the government's exposure from loans, guarantees, and insurance programs.[43] For example:

  - The Australian Audit Office has conducted reviews of Commonwealth guarantees, indemnities, and letters of comfort. The objectives of one audit were to examine the Commonwealth's guarantees, indemnities, and letters of comfort in relation to (1) the potential size of the Commonwealth's exposure; (2) the extent to which the overall exposure of the Commonwealth are managed and monitored; (3) the adequacy of administrative reporting arrangements; and (4) areas of better administrative practice relating to their management. The audit also sought to raise agencies' awareness of appropriate risk management and accountability practices in relation to these exposures and to quantify the Commonwealth's exposure.[44]The Netherlands Court of Audit conducted a government-wide investigation of government guarantees in 1996 and 1997. The audits covered 144 guarantees and guarantee schemes. The audits investigated the government-wide policy as well as ministries' own policies on guarantees and the provision of information on guarantees to the States General. In addition, the audits investigated how 12 high-risk guarantees were managed during the application process, during the term of guarantee, and after the payment had been made on the guarantee.

  - The United States General Accounting Office (GAO) reviewed the preparation and reporting of credit estimates required by the Credit Reform Act. In a 1998 report, the GAO looked at: (1) whether agencies completed estimates and reestimates of subsidy costs

as required under the Act (2) whether trends could be discerned, including any improvements in subsidy estimates, and (3) whether the causes for changes in estimates could be readily identified.[45]

- In the early 1990s, Canada's Office of the Auditor General examined and assessed (1) the extent of compliance with the government's guidelines to control the design of new loan guarantees; (2) how the risks and related costs were being recognized and accounted for; and (3) the adequacy of the information provide to Parliament about loan guarantees.[46]

- **Review of the long-term budgetary implications associated with environmental clean-up costs:** Some SAIs have begun to work to help identify and measure environmental clean-up costs. For example:

  - In response to concerns about the long-term costs implications of Department of Defense's (DOD) training ranges, the United States GAO reviewed (1) the potential magnitude of the cost to clean up these ranges in compliance with applicable laws and regulations, (2) the scope and reliability of DOD's training range inventory, and (3) the methodologies used to develop cost estimates.[47]

  - The Office of the Auditor General of Canada has undertaken reviews of environmental clean-up issues. After past audits revealed inadequacy in the information on the environmental costs and liabilities, the Office conducted an audit to assess the adequacy of management information on the environmental costs and liabilities available in custodial departments with responsibilities for federal contaminated sites. In addition, the audit sought to (1) identify best practices for estimating, measuring, and internally reporting environmental costs and liabilities; (2) assessing the adequacy of departmental information on contaminated sites to assist in the preparation of sustainable development strategies and actions plans;

and (3) determining the feasibility of a more complete accounting in the Public Accounts of Canada for the federal government's environmental liabilities and contingencies over the longer term.[48]

- **Review of other potential exposures:** Some SAIs have undertaken work to help identify and measure other potential sources of fiscal exposure. For example,
  - The United Kingdom's National Audit Office (NAO) reported on the potential exposure from contingent liabilities in dependent territories. The investigation focused on the actions taken by the Foreign Office to minimize the risk of potential contingent liabilities falling on the United Kingdom.
  - United Kingdom's NAO also reported on the exposure to and handling of clinical negligence claims. In the United Kingdom, the National Health Service (NHS) is legally liable for the clinical negligence of its employees, including hospital doctors, arising in the course of their employment. As part of this review, the NAO examined the number, value, type, and causes of claims. The NAO reported that the estimated net present value of claims outstanding against the NHS alleging clinical negligence was 2.6 billion pounds plus an estimated liability of a further 1.3 billion pounds where negligent episodes are likely to have occurred but where claims have not yet been received.[49]
  - The United States GAO has conducted reviews of the potential exposures associated with government corporations and government sponsored enterprises. As an example, a 1998 report looked at the potential financial exposure faced by the federal government as the result of financial service institutions sponsored, in whole or in part, by the federal government. Among other issues, the report, commented on (1) the extent which these institutions are subject to oversight mechanisms and control; (2) the independence and authorities of safety and soundness regulators for these institutions; and (3) the general indicators of potential exposure that these institutions pose to the federal government, such as the maximum amount of

theoretical losses associated with an institution's credit and insurance activities.[50]

- In 2000, the Australian National Audit Office reported on the Commonwealth's foreign exchange risk management practices. The objectives of the audit where to (1) identify the Commonwealth's foreign exchange risk in selected agencies; (2) assess the efficiency and cost-effectiveness of the management of foreign exchange risk; and (3) identify opportunities to improve the management of foreign exchange risk, including any associated potential financial savings that could accrue to the Commonwealth.

- The United Kingdom's NAO conducted an examination of a pension fund that was established when the water industry was privatized. The examination looked the origins for the deficit in the fund and the arrangements for maintaining payments to pensioners in the future.

- The United Kingdom's NAO also conducted reviews and developed a guide with respect to major privately financed projects conducted under the Private Finance Initiative (PFI). The guide explains the audit office's approach to assessing the value for money of PFI deals on a systematic basis. It highlights approaches that have been successful as well as suggesting ways to avoid the problems experienced in some of the early projects.

➢ **Analysis of long-term fiscal pressures:** Some SAIs have become involved in efforts to increase understanding of their governments' long-term fiscal outlooks. For example,

- Since 1992, the United States GAO has been simula-ting the interaction the federal budget and the economy. The model has been used to illustrate the potential economic impacts of fiscal policy alternatives and the growth in public pension and health programs. The simulation results provide qualitative illustrations—not precise forecasts.

(Footnotes)

* Methods used to estimate deferred maintenance costs include (1) condition assessment surveys—periodic inspection of government-owned property to determine the current and estimated cost to bring property to an acceptable condition; (2) life-cycle forecast---an acquisition or procurement technique that considers operation, maintenance, and other costs in addition to the acquisition costs; and (3) a management analysis method which is based on the inflation-adjusted reduction in maintenance funding since the base year.

(Endnotes)

Cited Sources

1 Polackova, Hana, Government Contingent Liabilities: A Hidden Risk to Fiscal Stability, (1998), [PDF File], URL http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1900series/wps1989/ wps1989.pdf.

2 Ibid.

3 International Organization of Supreme Audit Institutions, Guidance on Definition and Disclosure of Public Debt. 1996.

4 Polackova, 1998.

5 In respect of privatisations, INTOSAI's Working Group on the Audit of Privatisation has produced Guidelines on Best Practices for the Audit of Privatisations and Guidelines on the Audit of Public/Private Finance and Concessions.

6 Polackova, 1998.

7 Polackova, 1998.

8 Irwin, Timothy et al, eds, Dealing with Public Risk in Private Infrastructure, The World Bank, Washington D.C., 1997.

9 Brixi, Hana Polackova, Papp, Anita, and Schick, Allen, Fiscal Risks and the Quality of Fiscal Adjustment in Hungary, (1999), [PDF File], URL http://www.worldbank.org/html/dec/ Publications/Workpapers/wps2000series/wps2176/wps2176.pdf; Brixi, Hana Polackova and Schick, Allen, (2002), Government at Risk, The World Bank, Washington, D.C.

10 Brixi, Hana Polackova, Hafez Ghanem, and Roumeen Islam, Fiscal Adjustment and Contingent Liabilities: Case Studies of the Czech Republic and Macedonia, The World Bank, Washington D.C.; Brixi, Hana, Polackova, Contingent Government Liabilities: A Fiscal Threat to the Czech Republic? World Bank, Washington, D.C.

11 International Monetary Fund,"Report on the Observance of the Standard and Codes (ROSC): Czech Republic".

12 Fiscal restraint could also result in decreases of regulatory agencies' budget resources, which might have the unintended consequence of creating larger fiscal exposures.

[13] Muhleisen, Martin and Hamid Faruqee, Japan: Population Aging and the Fiscal Challenge, Finance and Development, Volume 38, Number 1, March 2000.

[14] Polackova, 1998.

[15] Foreign exchange exposures are particularly important where governments have significant foreign debt and other significant commitments denominated in foreign currency, such as capital expenditures, infrastructure development and military hardware acquisition programs.

[16] The International Accounting Standards Committee (IASC) has defined a liability as "a present obligation of the enterprise arising from past events, the settlement of which is expected to result in an outflow from the enterprise of resources embodying economic benefits."

[17] IASC defines contingencies as a condition or situation, the ultimate outcome of which, gain or loss, will be confirmed only on the occurrence, or non-occurrence, of one or more uncertain events.

[18] IASC does not have formal definition of commitments.

[19] 2001 Financial Report of the United States Government, 2002.

[20] Sosin, H., "On the Valuation of Federal Loan Guarantees to Corporations," Journal of Finance 35: 1209-21.

[21] Foster, Chester, and Robert Van Order. "FHA Terminations: A Prelude to Rationale Mortgage Pricing." AREUEA Hournal 13: 273-291;
[21] Cooperstein, Richard, F.Stevens Redburn, and Harry G.Meyers. "Modeling Mortgage Terminations in Turbulent Times". AREUEA Journal 19: 473-94; Kau, J., Donald, Keenan, Walter Muller, and James Epperson. "A Generalized valuation Model for Fixed-Rate Residential Mortgages." Journal of Money, Credit, and Banking 24:3.

[22] U.S. General Accounting Office,Budgeting for Federal Insurance Programs,GAO /AIMD-97-16, Washington, DC, September 30, 1997.

[23] See Merton, Robert C., "An Analytical Derivation of the Cost of Deposit Insurance and Loan Guarantees: An Application of Modern Options Pricing Theory," Journal of Banking and Finance, June 1997, and Alan Marcus, "Corporate Pension Policy and the Value of PBGC Insurance," Issues in Pension Economics, Ch. 3, Z. Bodie, J. Shoven, and D. Wise, eds, University of Chicago Press, 1987, and Pennacchi, George and Christopher Lewis "The Value of Pension Benefit Guaranty Corporation Insurance" Journal of Money, Credit and Banking 26: 735-79.

[24] The estimated liabilities of $10.4 billion were based on the FY 1995 financial statements (the most recent statements available during the preparation of the FY 1997 budget). The estimated liabilities include terminated plans and plans likely to terminate.

[25] Budget of the United States, Analytical Perspectives, Fiscal Year 1997.

[26] Federal Financial Accounting Standards Advisory Board, "Statement of Federal Financial Accounting Standards No. 5 Accounting for Liabilities of the Federal Government and No.6: Accounting for Property, Plant and Equipment

[27] Polackova, 1998.

[28] The International Monetary Fund. "Code of Good Practices on Fiscal Transparency," Washington, D.C.: IMF, 2001.

[29] NZ Budget and Economic and Fiscal Update 2002, chapters 4 and 5,

30 The Australian Department of the Treasury, Statement 9 under Budget Paper No. 1: "Risks to the Budget" within 2002-2003 Budget, URL http://www.budget.gov.au/ index.html.

31Swedish National Debt Office, Guarantees, [WWW Document], URL http: //www.rgk.se/ guaranteesandcredits.htm.

[32] Brixi, Hana Polackova, Sergei Shatalov, and Leila Zlaoui, Managing Fiscal Risk in Bulgaria Policy Research Working Paper 2282, World Bank, Washington D.C.

[33] Organization for Economic and Cooperative Development, "The OECD Survey of Budgeting Developments – Country Responses," 20th Annual Meeting of Senior Budget Officials, June 1999. PUMA/SBO (99)2/ANN2.

[34] For a more detailed discussion see, Schick, Allen (2002), Budgeting for Fiscal Risk, In Brixi, Hana Polackova and Schick, Allen (editors), Government at Risk: Contingent Liabilities and Fiscal Risk, The World Bank, Washington, D.C.

[35] Brixi, Hana Polackova, Papp, Anita, and Schick, Allen, (July 1999), Fiscal Risks and the Quality of Fiscal Adjustment in Hungary,[PDF File], URL http://www.worldbank.org/ html/dec/ Publications/Workpapers/wps2000series/wps2176/wps2176.pdf; Brixi, Hana Polackova and Schick, Allen, (2002), Government at Risk, The World Bank, Washington, D.C.

[36] U.S. General Accounting Office, Accrual Budgeting: Experiences of Other Nations and Implications for the United States, GAO/AIMD-00-57, February 18, 2000.

37 For a more detail discussion see Schick, Allen, (March 2000), Budgeting for Fiscal Risk, [PDF File], URL http://www1.worldbank.org/wbiep/decentralization/Courses/ China%2006.12.00/ Budgeting%20for%20Fiscal%2 0Risk.pdf.

[38] Refers to a matrix to assess fiscal risk, similar to the one shown in figure III, which was developed by Hana Polackva Brixi of the World Bank.

[39] Brixi, Hana-Polackova, Sergei Shatalov, and Leslie Zlaoui,(January 2000), Managing Fiscal Risk in Bulgaria, [PDF File], URL http://www.worldbank.bg/data/ FiscalBulgaria.pdf.

[40] Schick, Allen (2002), Budgeting for Fiscal Risk, In Brixi, Hana Polackova and Schick, Allen (editors), Government at Risk: Contingent Liabilities and Fiscal Risk, The World Bank, Washington, D.C.

[41] Mody, Ashoka, and Christopher M. Lewis. "The Management of Contingent Liabilities: A Risk Management Framework for National Governments." In Timothy Irwin and others, eds. *Dealing with Public Risk in Private Infrastructure.* World Bank Latin American and Caribbean Studies. Washington, D.C.: World Bank. 1997.

[42] Mody and Lewis (1997) and Government of the Philippines. "New Policy on Guarantees for Private Infrastructure Projects" A Consultative Document." Manila, 1995.

[43] SAIs should ensure disclosure standards are adhered to, especially, when loans and guarantees are extended to local authorities and government owned companies.

[44] Australian National Audit Office, "Audit Report-Commonwealth Guarantees, Indemnities and Letters of Comfort," Audit Report No. 6, tabled 12/09/96.

[45] U.S. General Accounting Office, Credit Reform: Greater Effort Needed to Overcome Persistent Cost Estimation Problems GAO/AIMD-98-14, Washington, D.C.: March 30, 1998.

[46] Auditor General of Canada. Department of Finance-Loan Guarantees in 1992 Report of the Auditor General.

[47] United States General Accounting Office, Environmental Liabilities: DOD Training Range Cleanup cost Estimates are Likely Understated, GAO-01-479, Washington, D.C.: April 11, 2001.

[48] Auditor General of Canada, Federal Contaminated Sites: Management Information on Environmental Costs and Liabilities in 1996 Report of the Auditor General of Canada.

[49] National Audit Office, "Handling Clinical Negligence Claims in the United Kingdom: Report by the Comptroller and Auditor General" HC 403 Session 2000-2001: 3 May 2001.

[50] United States General Accounting Office, Financial Services Institutions: Information for Assessing the Government's Potential Financial Exposure, GAO/ GGD-98-125,Washington, D.C.: June 15, 1998.