INTERNATIONAL MONETARY FUND

Fiscal Risks—Sources, Disclosure, and Management

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Contents Page

Executive Summary

A number of member countries have expressed interest in advice regarding disclosure and management of fiscal risks (defined as the possibility of deviations of fiscal outcomes from what was expected at the time of the budget or other forecast). This paper analyzes the main sources of fiscal risks and—building on an overview of existing practices in a wide range of countries—provides practical suggestions in this area, including a possible Statement of Fiscal Risks and a set of Guidelines for Fiscal Risk Disclosure and Management.

Empirical evidence presented in the paper highlights the macroeconomic significance of fiscal risks from various sources. Unexpected changes in macroeconomic variables, most notably in the case of exchange rate depreciations, often have major consequences for fiscal sustainability. A key role is also played by calls on contingent liabilities in the banking system, other parts of the public sector (state-owned enterprises and subnational levels of government), or the government's interactions with private sector agents (e.g., PPPs).

A number of broad messages emerge from the review of country experiences:

- Effective identification of fiscal risks requires a clear allocation of responsibilities for the various parts of the public sector in assessing and reporting fiscal risks and that procedures be in place to ensure that the entity that plays the main role in determining fiscal policy (typically, the ministry of finance) has access to relevant data.

- Comprehensive disclosure of fiscal risks is desirable to facilitate identification and management of risks. However, disclosure modalities in some areas should avoid engendering moral hazard from a perception of an implicit blanket guarantee (e.g., in the banking system) and ensure that the state's economic interests are not prejudiced.

- Cost-effective risk mitigation begins with sound macroeconomic policies and public financial management practices. It also consists of practices that require justification for taking on fiscal risks, and that make it necessary for private sector agents to pay guarantee fees or to share in the risk. It may also involve using insurance instruments, though this remains an exception in light of limited market development to date.

- Fiscal risk management is facilitated by a legal and administrative framework clarifying relationships between different levels of government and vis-à-vis the private sector. Moreover, for fiscal risks to be properly incorporated in decision making, suitable procedures are required in the budget and contingent liability approval process: contingent obligation proposals may need to be considered alongside competing instruments, and ceilings on total issuance of guarantees may need to be subjected to parliamentary approval during the budget process.

I. INTRODUCTION

1. **Fiscal outturns often differ substantially from budget or other fiscal projections**, owing to shocks such as deviations of economic growth from expectations, terms-of-trade shocks, natural disasters, calls on government guarantees, or unexpected legal claims on the state. In many instances, failure to disclose and prepare for such risks has caused additional government obligations, larger public debts and, occasionally, refinancing difficulties and crises. Moreover, unexpected spending pressures or revenue losses often require ad-hoc and disruptive adjustments during the fiscal year. Indeed, even in countries where debts and deficits have been reduced, policymakers' attention is turning toward risks—especially from contingent liabilities and off-balance sheet items—that may not be fully apparent in "headline" fiscal indicators. To address the challenges posed by fiscal risks, several countries have recently increased their disclosure of such risks, so as to foster fiscal sustainability and to reduce borrowing costs and the likelihood of crises.

2. **A number of member countries have expressed interest in further work on disclosure and management of fiscal risks**.[1] Responding to such interest, this paper analyzes the main sources of fiscal risk and documents fiscal risk disclosure and management practices in a wide range of countries. A key source of information is questionnaire responses covering several advanced, emerging market, and developing economies.[2] Building on an overview of existing practices and previous work on fiscal risks in specific spheres of activity (such as contingent liabilities, public enterprises, and public-private partnerships),[3] the paper seeks to provide practical suggestions in this area—including a possible Statement of Fiscal Risks and a set of Guidelines for Fiscal Risk Disclosure and Management.

3. **For the purpose of this paper, fiscal risks refer to the possibility of deviations in fiscal variables from what was expected at the time of the budget or other forecast**. To keep the analysis manageable, the paper focuses on fiscal risks that have a reasonable chance of materializing during a horizon of a few years. It does not delve into expenditure commitments from longer-term challenges—such as those associated with pension systems—where spending pressures can usually be estimated fairly accurately into the

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[1] For example, the APEC Finance Ministers (14th Meeting, August 2007, Coolum, Australia) recently reaffirmed the importance of assessing and disclosing fiscal risks, and called on the Fund to provide further practical insights into best practices in managing such risks.

[2] Responses were provided by FAD and desk economists, and country authorities. The countries covered include Algeria, Armenia, Bosnia and Herzegovina, Brazil, Chad, Czech Republic, Egypt, France, Gabon, Germany, Ghana, Honduras, Hungary, Indonesia, Italy, Japan, Jordan, Kenya, Lebanon, Mexico, Netherlands, New Zealand, Nigeria, Norway, Peru, Philippines, Russia, Saudi Arabia, South Africa, Tanzania, and United Kingdom. Further information was assembled from secondary sources for countries including Australia, Chile, Colombia, United States, and OECD countries more generally.

[3] Previous studies include Hemming and others (2006).

medium-term. At the same time, the paper recognizes the need to disclose such commitments as well: indeed, in some cases, past expenditure commitments in these areas had to be brought onto the government's books with unexpected adverse consequences for the fiscal accounts. Similarly, the paper does not focus on "policy risks" related to possible changes in government policies (which in turn may stem from possible changes in government or public attitudes); these risks are seldom disclosed, as government policies are almost always taken as given in budget documents.

4. **Empirical evidence presented in the paper highlights the macroeconomic significance of fiscal risks from various sources**. Unexpected changes in macroeconomic variables often have major consequences for fiscal sustainability—most notably and immediately in the case of exchange rate depreciations in countries with large foreign-currency debt. Increases in interest rates, adverse terms-of-trade shocks, and declining economic growth also have substantial fiscal implications. In addition, a key role is played by calls on explicit or implicit contingent liabilities—in the banking system or other parts of the public sector (such as state-owned enterprises or subnational governments), or through the government's interactions with private sector agents (e.g., PPPs).

5. **Identification, disclosure, and management of fiscal risks are mutually supporting activities**. Just as identification is a prerequisite for disclosure and management, the public scrutiny that comes with disclosure creates pressure to ensure that risks are appropriately identified and managed. Moreover, disclosure requirements imply an obligation to face up to the fact that risks are being incurred and need to be considered in assessing public debt sustainability and setting fiscal targets. At the same time, sound risk management makes it easier for governments to disclose risks with little hesitation about possible adverse reactions on the part of citizens or international investors.

6. **In analyzing the international experience and suggesting broad guidelines for fiscal risk disclosure and management, the paper concentrates on**:

- *Identification and disclosure of fiscal risks.* Identification of all relevant fiscal risks requires clearly established responsibilities for the collection, transmission, and analysis of information on such risks. Beyond the benefits of disclosure in the form of greater incentives for accurately identifying risks, transparency may also help reduce borrowing costs in the long run. This said, the paper outlines possible exceptions to a presumption of disclosure, where publishing information on risks might engender moral hazard (e.g., through the perception of an implicit blanket guarantee in the banking system) or prejudice the economic interests of the state with respect to legal claims or negotiating positions (e.g., over public wages).

- *Cost-effective mitigation of fiscal risks.* Risk mitigation—that is, policy action that reduces potential fiscal risks before they are taken on or materialize—may involve taking up insurance or otherwise sharing risk with other parties. A clear policy

framework on fiscal risk mitigation includes procedures to ensure that risks are taken on only if sufficient justification is provided.

- *Legal and administrative framework to manage fiscal risks.* Successful management of fiscal risks that remain after mitigation efforts requires a clear allocation of roles and responsibilities—notably between the central government and other public sector entities—with respect to the collection, commitment, and use of public funds.

- *Integration of fiscal risks in fiscal analysis and the budget process.* The possibility that risks may materialize needs to be taken into account when determining fiscal targets. Beyond this, integration of guarantee issuance decisions with the budget process helps to ensure that projects compete on a more equal footing regardless of whether they are financed through guarantees or expenditure appropriations. Further risk management procedures include, for example, budgeting for expected calls on contingent obligations, or establishing notional or actual contingency funds.

7. Section II identifies the relative importance of various sources of fiscal risks, including macroeconomic shocks and several types of contingent liabilities. Sections III and IV review country practices with respect to risk disclosure and management, respectively. Section V concludes, highlighting the potential benefits of a Statement of Fiscal Risks and a set of broad Guidelines for Fiscal Risk Disclosure and Management.

II. Sources of Fiscal Risk

8. **Fiscal risks—deviations of fiscal outcomes from what was expected at the time of the budget or other forecast—arise from macroeconomic shocks and the realization of contingent liabilities**. Sources of risk include various shocks to macroeconomic variables (economic growth, commodity prices, interest rates, or exchange rates) as well as calls on several types of contingent liabilities (obligations triggered by an uncertain event: including both explicit liabilities—those defined by law or contract, e.g., debt guarantees—or implicit liabilities—moral or expected obligations for the government, based on public expectations or pressures, e.g., bailouts of banks or public sector entities).[4]

9. **Fiscal risks covered by this paper's definition will vary in a number of respects, calling for different responses in terms of disclosure and management**. For example:

- ***Temporary vs. permanent***. Higher-than-expected fiscal deficits resulting from temporary growth slowdowns against a background of low debt may simply require

[4] The term "contingent liability" throughout this paper refers to its general use as "spending that may be triggered by a future event." This differs from the accrual accounting definition of "contingent liability" (not recognized on the balance sheet as a liability) as linked to events that are less than likely to occur.

allowing the automatic stabilizers to work. Permanent shocks affecting fiscal sustainability in a lasting manner would have more important implications.

- ***Correlation***. Whereas shocks that are likely to offset each other may call for little response, the possibility of positively correlated or mutually reinforcing shocks (e.g., exchange rate, debt, and banking crises) warrants greater policy action.

- ***Forecasting***. Deviations of fiscal outcomes from expectations may reflect weak forecasting capacity or "strategic" forecasts (whereby a government might use overly conservative commodity price assumptions to dampen expenditure demands from the legislature or to build a buffer against possible price declines, or optimistic revenue forecasts to facilitate the approval of ambitious spending plans). This highlights the importance of accurate forecasts.

- ***Quantification***. Whether fiscal risks are disclosed in a quantitative or qualitative manner depends on whether the fiscal cost of an event and the probability of its occurrence can be reasonably estimated.[5] Quantification is usually easier for macroeconomic risks and explicit guarantees (which include contractual terms and amounts) than for implicit guarantees.

- ***Sensitivity***. Major fiscal risks are often related to areas where expectations of government policies need to be managed carefully, such as problems in the banking system or overvalued exchange rates. This needs to be recognized in designing disclosure modalities.

10. **To gauge the importance of different sources of fiscal risks, this section draws on both realization of risks and forward-looking risk estimates**. It analyzes differences between projections and outcomes with respect to variables such as the debt/GDP ratio, fiscal deficits, and a residual term in the stock-flow reconciliation. This documents the macroeconomic relevance of fiscal risks, and highlights the importance of debt increases that are not captured in the deficit (examples include assumption of debts and other off-balance sheet items). Empirical evidence is then presented on the fiscal consequences of each type of shock, based on forward-looking estimates of the implications of changes in macroeconomic variables or the potential costs of contingent liabilities, and ex-post estimates of fiscal costs of shocks such as banking crises and natural disasters.

[5] Under Knight's (1921) definition, situations where an event's expected cost (the product of the event's cost times the probability of its occurrence) cannot be quantified would be labeled as "uncertainty," whereas situations where probabilities and costs can be estimated would represent "risk."

A. Macroeconomic Significance of Fiscal Risks

11. **The macroeconomic significance of fiscal risks is highlighted by comparing expectations with outcomes for fiscal variables**. A comparison of *World Economic Outlook* (WEO) forecasts with outturns of fiscal variables such as the debt/GDP or deficit/GDP ratios shows that unexpected changes are often large and vary widely, although their average is close to zero.[6] In a panel of 27 advanced economies for 1995–2007 and 131 emerging and developing countries for 2002–2007 (the largest panel for which forecasts of fiscal variables are available), the 10th percentile unexpected worsening (that is, the 10th worst realization of risks in 100 observations) amounts to 7.2 percentage points for the debt/GDP ratio and 1.7 percentage points for the fiscal balance to GDP ratio (Figures 1 and 2).[7] Unexpected changes in fiscal variables are somewhat larger in emerging/developing countries, but are substantial for advanced countries as well. To confirm that unexpected changes can, in hindsight, be matched to economic shocks, Figures 1 and 2 also illustrate the high frequency of large unexpected improvements in fiscal variables for oil-exporting countries in years when oil prices rose.

12. **The largest unexpected increases in the debt/GDP ratio are often related to exchange rate depreciations and calls on contingent liabilities**. A decomposition of unexpected increases in the debt/GDP ratio into (i) unexpected rises in deficits, (ii) a contribution from unexpected economic growth slowdowns, and (iii) a residual term including factors such as exchange rate depreciation and calls on contingent liabilities points to the importance of the residual term (Box 1).[8] Many large and unforeseen increases in the debt/GDP ratio reflect the inclusion of debts (e.g, from bailouts of banks or state-owned enterprises) that had not been previously recorded in general government debt.[9] Worsenings in the deficit or economic growth are significant but feature less prominently.

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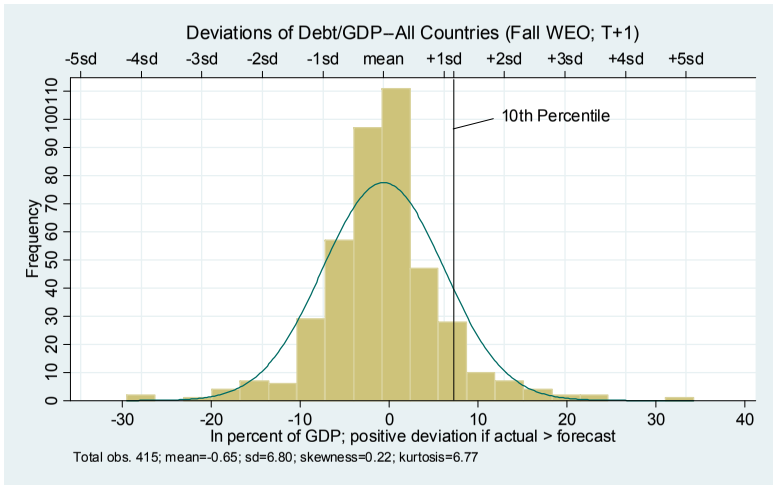
[6] Unexpected changes in debt/GDP ratios are computed as the difference between forecasts for year *t* based on the October vintage of the year *t-1* WEO, and outturns for the year *t* recorded in the WEO's October vintage of year *t+1*. Unexpected changes for other variables, such as the fiscal deficit as a ratio of GDP, are computed in a similar manner. Instances in which the debt/GDP ratio changed unexpectedly because of debt restructurings or changes in the debt concept reported to the WEO are omitted from the sample. Systematic studies of the accuracy of WEO forecasts found little, if any, bias in WEO forecasts of macroeconomic variables (Timmermann, 2007) or fiscal variables (International Monetary Fund, 2003).

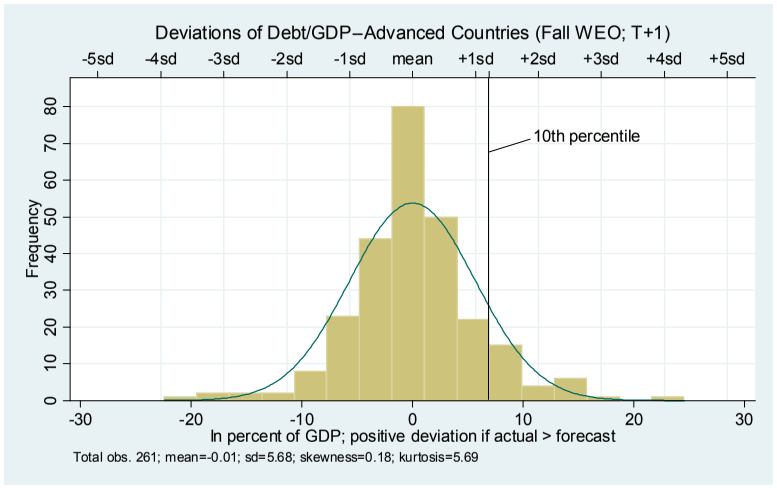
[7] The 10th percentile is chosen to reduce the influence of extreme values, or outliers.

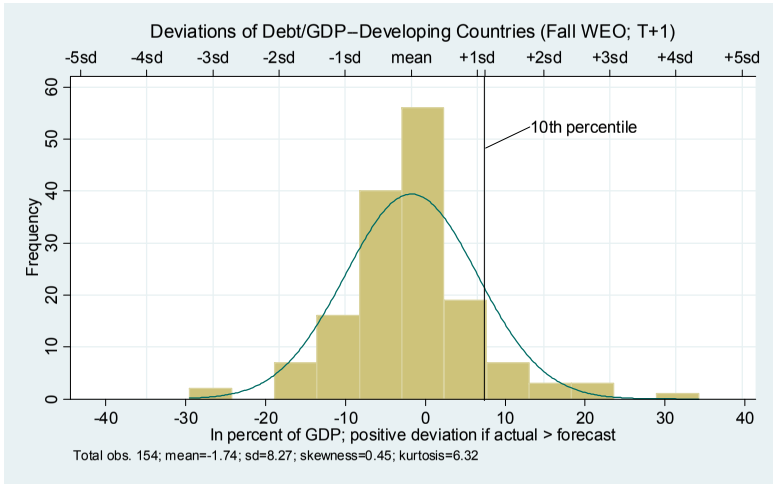
[8] Such residual term, often referred to as the "hidden" deficit, is a key determinants of debt dynamics (Kharas and Mishra, 2001; Panizza and others, 2006; Polackova Brixi and Schick, 2002). The largest residual terms found within the sample analyzed by staff often relate to exchange rate depreciations (recent examples include Egypt, 2003; Iceland, 2001; and Israel, 2002) and recognition of public sector obligations (e.g., Canada, 1999–2000; Cape Verde, 2005–6; Egypt, 2003; Greece, 2002 and 2004; Japan, 1998 and 2006; and Mauritius, 2003).

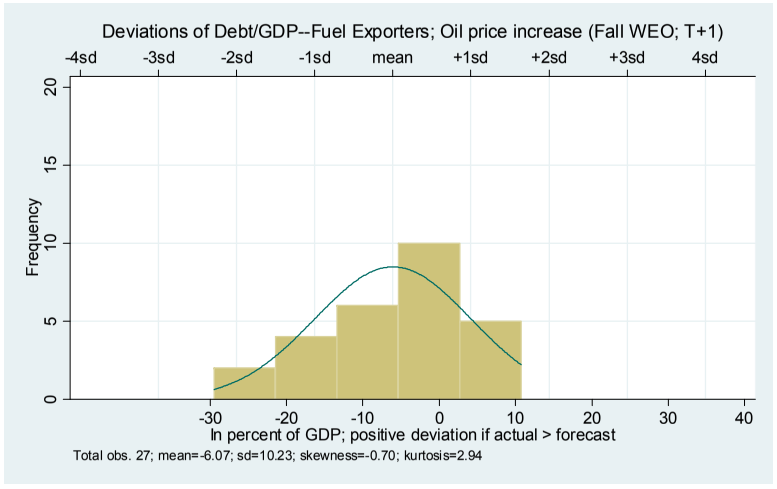
[9] Many revisions apply retroactively to the debt/GDP series for several years prior to the year in which the "surprise" is observed. While unexpected increases in debt often reflected improved recording of existing obligations, they sometimes revealed that obligations had cumulated in various parts of the public sector and had to be recognized on the government's books.

Figure 1. Unexpected Changes in the Debt/GDP Ratio



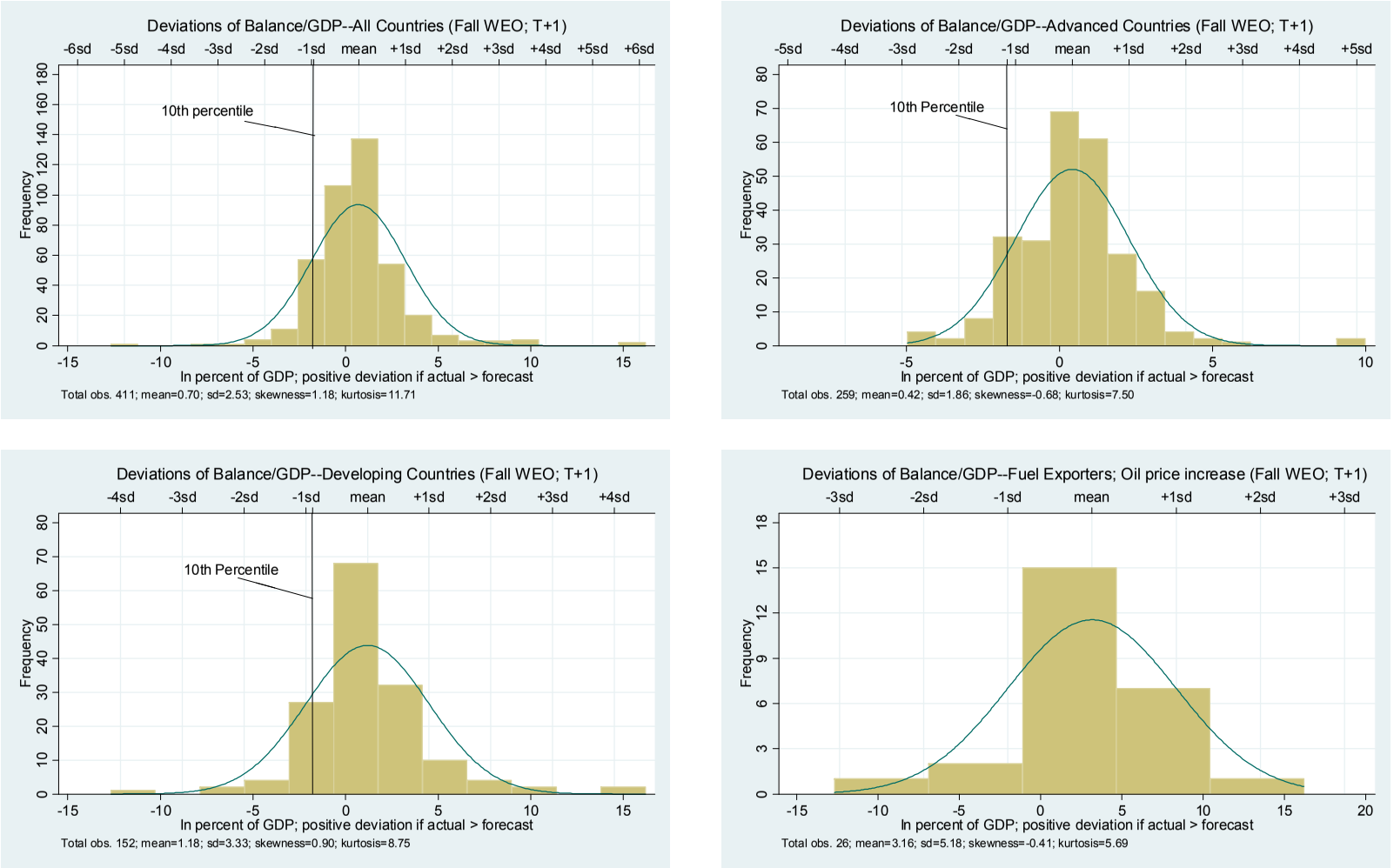






Notes: Differences between the debt/GDP ratio for year *t* as forecast in the WEO Fall submission of year *t-1* and the realization for year *t* observed in the WEO Fall vintage of year *t+1*. The analysis is based on 27 advanced economies for 1995–2007 and 131 emerging/developing countries for 2002–2007.

Figure 2. Unexpected Changes in the Fiscal Balance to GDP Ratio



Notes: Differences between the fiscal balance to GDP ratio for year *t* as forecast in the WEO Fall submission of year *t-1* and the realization for year *t* observed in the WEO Fall vintage of year *t+1*. The analysis is based on 27 advanced economies for 1995–2007 and 131 emerging/developing countries for 2002–2007.

Box 1. Sources of Fiscal Risks—Decomposition of Unexpected Changes in the Debt/GDP Ratio

Unexpected increases in the debt/GDP ratio are decomposed into unexpected rises in deficits, a contribution from unexpected economic growth slowdowns, and a residual term including factors such as exchange rate depreciation and calls on contingent liabilities: $\Delta\left(\frac{Debt}{GDP}\right)_t = \left(\frac{Deficit}{GDP}\right)_t - \lambda\left(\frac{Debt}{GDP}\right)_{t-1} + \varepsilon_t$, where Δ indicates a change over the previous year and all variables refer to differences between WEO forecasts for year *t* made in year *t-1* and outturns for year *t* based on data observed in year *t+1*; $\lambda \equiv (\gamma/1+\gamma)$ where γ is the nominal rate of economic growth; and ε is the residual term. An analysis based on the magnitude of the 10th percentile worsenings for each component points to the importance of the residual term in accounting for unexpected increases in the debt/GDP ratio.

Worst 10th Percentile of Forecast Error Distribution (percentage points of GDP)

			Emerging Market and Developing Economies		
	All countries	Advanced	All	Oil-exporting	Non oil-exporting
Debt/GDP	7.3	6.9	7.4	5.9	7.7
Balance/GDP	-1.7	-1.7	-1.9	-1.9	-1.9
Growth contribution	-1.1	-1.3	-0.7	0.3	-0.9
Residual term	7.7	5.9	10.5	16.2	10.4
Number of Observations	415	261	154	27	127

Notes: The sample consists of 27 advanced economies for 1995–2007 and 131 emerging/developing countries for 2002–2007.

The 10th percentile worsening is largest for the residual term. Adverse surprises in the deficit or economic growth are somewhat smaller, partly because the exercise is based on changes within one year; the relevance of drops in economic growth and worsening deficits increases at somewhat longer horizons.

A variance decomposition confirms that the residual term accounts for the bulk of unexpected changes in the debt/GDP ratio, with surprises in the deficit or in the contribution from growth playing a smaller role.

Forecast Error Variance Decomposition for the Change in the Debt/GDP Ratio

$\sigma^2_{\Delta d_t} =$	$\sigma^2_{b_t}$	$+\sigma^2_{\lambda_t d_{t-1}}$	$+\sigma^2_{\varepsilon_t}$	$+2\,\mathrm{cov}_{b_t,\lambda_t d_{t-1}}$	$-2\,\mathrm{cov}_{b_t,\varepsilon_t}$	$+2\,\mathrm{cov}_{\lambda_t d_{t-1},\varepsilon_t}$
100	18	7	99	5	-23	-6

Notes: The variance (set equal to 100) of the unexpected change in the debt/GDP ratio ($\sigma^2_{\Delta d}$) is decomposed into the sum of the variances of the fiscal balance as a share of GDP (σ^2_b), of the contribution from economic growth ($\sigma^2_{\lambda,d}$), and of the residual (σ^2_ε), minus twice the (appropriately signed) covariance terms. The sum of the components equals 100.

B. Individual Sources of Risk

13. **Unexpected changes in key macroeconomic variables imply substantial fiscal risks**. Forward-looking estimates of risks from macroeconomic variables—in the form of standardized bound tests used in IMF debt sustainability templates—show that a one-half standard deviation permanent shock to real growth would increase the debt/GDP ratio five years later by 6.8 percent of GDP on average in a sample of 19 advanced and emerging market countries. A one-half standard deviation shock to the primary deficit would raise the debt/GDP ratio by 5.2 percentage points. And a one-half standard deviation shock to interest

Table 1. Impact of Various Shocks on Debt/GDP Ratio, Forward-looking Estimates
(in percentage points of GDP)

	Interest Rate	Real GDP Growth	Primary Balance	Combined Shock	Exchange Rate
	Advanced and Emerging Market Countries				
Mean	4.3	6.8	5.2	6.1	6.5
Median	3.4	6.5	4.5	5.0	6.1
Minimum	0.0	1.3	1.4	3.3	-0.9
Maximum	22.5	14.5	15.1	22.9	21.7
Standard deviation	4.8	2.9	3.2	4.5	6.3
	Developing Countries				
Mean	…	8.5	4.4	4.1	5.5
Median	…	7.4	1.7	0.2	4.0
Minimum	…	1.0	-2.0	-1.0	0.2
Maximum	…	18.0	22.0	24.0	16.0
Standard deviation	…	5.3	8.3	9.1	5.1

Notes: Deviations of the debt/GDP ratio with respect to the baseline, from desks' debt sustainability analyses. The sample consists of 19 advanced and emerging market economies and seven developing countries. Shocks to interest rates and growth are 1/2 standard deviation permanent shocks for advanced and emerging market economies; and one standard deviation shocks for developing countries in the first two years. Combined shocks are permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and primary balance for advanced and emerging market economies and 1/2 standard deviation shocks to real interest rate and growth rate for developing countries. Exchange rate shock is a one-time 30 percent real depreciation.

rates would lead to somewhat smaller increases on average, though it would have even more significant effects in countries that rely primarily on floating interest rate debt. In developing countries (based on a limited sample), a decline in economic growth would have an especially notable effect on debt dynamics (Table 1).

14. **The impact of exchange rate depreciations is immediate, and can be especially strong when a large share of the debt is in foreign currency**. A 30 percent depreciation of the real exchange rate would increase the debt/GDP ratio by 8 percent in the year of the shock and (reflecting gains in competitiveness) 6.5 percent after five years in the sample of advanced and emerging economies; and by similar amounts in developing countries. Indeed, turning to information on ex-post realization of risks, exchange rate depreciation accounted for a major share of the increase in the debt/GDP ratio in the context of several emerging market crises during the 1990s (de Bolle and others, 2006).[10]

[10] Exchange rate depreciation accounted for about half of the increase in Brazil (1998) and Indonesia (1998); essentially all of the increase in Argentina (2001), the Philippines (1998), Turkey (2001), the Ukraine (1998), and Uruguay (2002); and more than all of the increase (the debt/GDP ratio was reduced by other factors) in

(continued)

15. **Changes in commodity prices also have important fiscal implications, especially for commodity producers**. For example, a US$20 decline in oil prices would lead the overall fiscal balance to worsen by 10 percentage points of GDP in a sample of oil producing countries (Ossowski and others, 2008). As seen above, the magnitude of the impact is also apparent in the large negative forecast errors for the debt/GDP ratio of oil-producers during years characterized by oil price increases. Commodity price changes affect the fiscal sustainability of commodity importers primarily through economic growth, though their direct fiscal impact may be considerable for countries with energy subsidies.

16. **For low-income countries, volatile aid flows and the need to cushion the poor from external shocks present special challenges**. In some highly aid-dependent countries, aid is more volatile than fiscal revenues, and shortfalls in aid and domestic revenues tend to coincide. More generally, uncertainty about aid disbursements is large and the information content of commitments made by donors is limited (Bulír and Hamann, 2003). Moreover, sharp increases in staple food prices may unexpectedly require incurring sizable fiscal costs.

17. **However, some of the largest fiscal costs have arisen from contingent liabilities**. Examples include:

- **Banking crises**. A review of the fiscal costs of systemic banking crises identified 24 episodes in which cumulative costs exceeded 5 percentage points of GDP, based on a sample of 117 banking crises that occurred in 93 countries during 1977–98. It estimated costs at 30–55 percent of GDP in Argentina, Chile, and Uruguay in the early 1980s, 25–50 percent of GDP in Indonesia, Korea, and Thailand in 1997–98, and about 20 percent of GDP in Japan in the 1990s (Honohan and Klingebiel, 2000).[11] Such costs arise primarily from depositor and debtor bailouts, open-ended liquidity support, and repeated recapitalization programs—and are often larger when incurred after years of implicitly subsidized lending by state-owned financial institutions.

- **Natural disasters**. Direct economic losses from natural disasters have often exceeded 10 percentage points of GDP in developing countries and amounted to a few percentage points of GDP in some advanced countries (Freeman and others, 2003); such losses are unevenly distributed across countries, as disasters usually revisit the same geographic zones. The fiscal implications are clearly substantial, though estimates are available for a limited sample; a study on Latin American and

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Ecuador (1999), Mexico (1995), and Russia (1998). The debt/GDP ratio jumped by more than 30 percentage points of GDP on average during these crises.

[11] In a number of cases, Honohan and Klingebiel's (2000) method does not fully reflect recoveries and may thus be considered an upper bound on the net present value of the fiscal and quasi-fiscal costs. At the same time, banking crisis interventions were often financed with central bank debt that remained on the central bank's balance sheet for many years (Stella and Lönnberg, 2008).

Caribbean countries found several episodes when the fiscal deficit rose substantially in the aftermath of natural disasters (Caballeros Otero and Zapata Martí, 1995).

- **State-owned enterprises**. Public enterprises have often been a significant source of contingent government liabilities, especially as a result of political interference, mismanagement, or irresponsible borrowing. Losses or excessive debt have resulted in costly government bailouts, especially in the aftermath of crises.[12]

- **Subnational government bailouts**. Subnational government defaults or bankruptcies have often led central governments to provide rescue packages, occasionally with large costs: examples include Brazil (7 percent of GDP in 1993 and 12 percent of GDP in 1997; Bevilaqua, 2002), Argentina (1 percent of GDP, cumulative, in the mid-1990s; Nicolini and others, 2002), and Mexico (1 percent of GDP in the aftermath of the Tequila crisis; Hernández-Trillo and others, 2002).[13]

- **Legal claims**. Governments have paid compensation in legal cases related to disparate claims; the amounts, often difficult to predict prior to a ruling, can be sizable. Examples include war claims and frozen foreign currency deposits (Bosnia and Herzegovina, 12 percent of GDP); litigation on domestic arrears (Chad, 9 percent of GDP); claims related to privatization (Brazil); liquidation of SOEs (Brazil, Indonesia); personnel management (Brazil, France); compensation for real estate and other property losses (Lithuania and Poland); tax refunds (Indonesia); bank restructuring guarantees (Czech Republic); and environmental cleanup (e.g., related to defense or nuclear power; Canada and United States).

- **Guarantees**. Although systematic information on actual calls on guarantees is limited, it is clear that potential risks from guarantees are substantial. Information on exposure is available for explicit guarantees legally binding the government to take on an obligation should a specified event occur (e.g., price guarantees, loan guarantees, or profit guarantees): these amounted to 12 percent of GDP on average in a sample of then pre-EU accession countries as of end-2002 (European Commission, 2004) and to 5 percent of GDP in the countries for which questionnaire responses were available.

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[12] Examples relate to the power sector (Indonesia, where during the 1998 crisis the central government paid for the electricity company's fuel costs, amounting to 4 percent of GDP; and the Philippines); airlines (e.g., subsidies/bailouts averaging US$2 billion each for several airlines in Europe); railways/metro (Colombia, Hungary, Japan, Malaysia, and Thailand; 1–5 percent of GDP); and water authorities (Jordan, 3 percent of GDP).

[13] In Italy, central government bailouts of subnational government health units ranged between 0.2–0.6 percent of GDP yearly over the past five years.

- **Public Private Partnerships**. PPPs have gained importance as a source of fiscal risks in many advanced and emerging market economies—particularly for large investment projects in transportation infrastructure and the power sector (Hemming and others, 2006).[14] They often entail fiscal obligations not captured in the fiscal accounts: for example, state guarantees for concessionaire borrowing, minimum revenues, or exchange rate losses. Indeed, there is growing anecdotal evidence on costly PPP failures due to unrealistic demand projections or other shortcomings in project planning and management.[15]

18. **Looking ahead, the relative importance of various types of contingent liabilities may increase**. For example, survey respondents identified guarantees, especially those linked to PPPs, among the most important sources of fiscal risks in the future. These developments will need to be borne in mind when turning to appropriate policies in fiscal risk disclosure and management.

III. Fiscal Risk Disclosure and Management—International Experience

19. **This section analyzes the international experience with respect to fiscal risk disclosure and management**. In the area of disclosure, the section reviews international standards and transparency initiatives that have fostered fiscal risk reporting, and then presents country experiences with respect to types of risks disclosed and reporting requirements and documentation.

A. Fiscal Risk Disclosure

20. **Public disclosure of information on fiscal risks can help to manage risks, improve economic efficiency, and reduce borrowing costs**. Making information on fiscal risks publicly available subjects the analysis to additional scrutiny, helping to ensure that risks are properly assessed and recognized. Transparency also promotes earlier and smoother policy responses; strengthens accountability for risk management; and improves the quality of decisions on whether the government should take on risks in the first place. Even when contingent expenditures imply low risks from a macroeconomic standpoint—because they are small or uncorrelated with each other—disclosure leads to more careful assessment of

[14] It is important to note that many PPP contracts involve even larger fiscal risks for the long-term than they do for the medium-term.

[15] During the 1990s, calls on demand guarantees related to PPPs in power, telecoms, and toll roads resulted in cumulative payments of 2 percent of GDP by 2004 in Colombia. Substantial obligations on PPP contracts in power plants and roads also became due in Indonesia, Malaysia and Thailand during the Asian crisis. More recently, governments have provided new state guarantees, equity contributions, operating subsidies, or full bailouts and renationalization in the transportation infrastructure sector, in countries including Australia, Hungary, Mexico, and the United Kingdom (OECD/ITF, 2008), with gross costs for individual projects often amounting to ½ percent of GDP.

cost-effectiveness and inspection for implicit subsidies. Consistent with these benefits, cross-country evidence shown in Box 2 suggests that fiscal transparency is associated with better sovereign bond ratings and greater access to international capital markets (see also Glennerster and Shin, 2008; and Hameed, 2005).[16] Moreover, fiscal transparency has been found to foster FDI (Drabek and Payne, 2001).

21. **There is a trend toward greater disclosure of information on fiscal risks**. This has been driven by international accounting or statistical standards requiring disclosure of certain risks; the adoption of fiscal responsibility and/or public financial management legislation that enhances disclosure relative to those standards; and recent transparency initiatives, such as the IMF *Code and Manual of Good Practices on Fiscal Transparency* (2001, 2007) and the OECD *Best Practices for Budget Transparency* (2001).

International standards and transparency initiatives

22. **Requirements to disclose certain fiscal risks are part of internationally-accepted accounting and statistical standards** (Box 3). The International Public Sector Accounting Standards (IPSAS) for accrual accounting require disclosure in notes to financial statements of contractual contingent liabilities when the possibility of payment is "not remote."[17] Under cash accounting, which remains widespread, disclosure similar to that under accrual standards is recommended, though not required. In addition, disclosure of key contingent liabilities is required as a memorandum item to the balance sheet under statistical reporting standards, such as the *Government Finance Statistics Manual 2001*. An international task force under the aegis of the OECD is studying the feasibility of harmonizing the different international government accounting and statistical standards.

23. **Further risk disclosure recommendations are included in various fiscal transparency initiatives**. The IMF *Code and Manual* and the OECD *Best Practices* stress that budget documentation, mid-year reports of budget execution, and end-year financial statements should indicate the major risks, and should include statements indicating contingent liabilities' nature and policy purpose, duration, and intended beneficiaries; the guarantee fees received; the government's gross exposure and, where feasible, an estimate of the potential budgetary cost (net of possible loss recovery).

[16] Although cross-country regression results point to a beneficial impact of transparency in the long run, disclosing hitherto unannounced contingent liabilities may initially worsen ratings and increase bond spreads (Polackova Brixi, 2004).

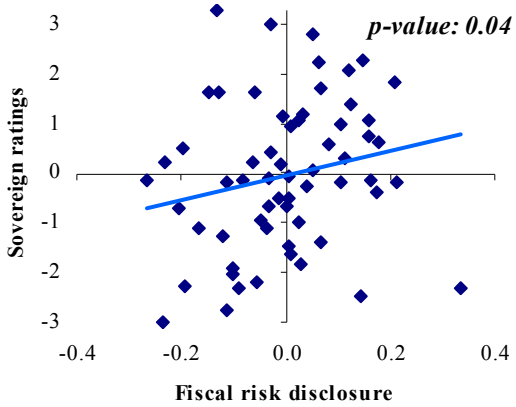
[17] In this paragraph and Box 3, "contingent liability" refers to the accounting definition, i.e., a possible payment linked to events that are less than likely to occur and thus not recognized on the balance sheet as a liability.

Box 2. Fiscal Risk Transparency and Credit Ratings

Research by the Fiscal Affairs Department shows that fiscal transparency (and, in particular, fiscal risk disclosure) is associated with better sovereign bond ratings and greater access to international capital markets. Although fiscal transparency might proxy for other aspects of institutional quality, it may be part of a package of mutually reinforcing reforms with clear benefits in terms of market access and lower borrowing costs.

Fiscal transparency indicators were developed from the fiscal transparency module of the Reports on Standards and Codes ('fiscal ROSCs'). "Overall fiscal transparency" is based on 20 attributes of good fiscal transparency practices; a narrower measure ("fiscal risk disclosure") is based on a subset of four aspects of disclosure in budget documentation for contingent liabilities, quasi-fiscal activities, and other fiscal risks. Cross-country regressions show that these fiscal transparency variables are positively related to sovereign ratings, controlling for per capita income, inflation, default history, and political stability. The estimated coefficients are statistically and economically significant. The figure below illustrates the independent association of fiscal risk disclosure with ratings, after stripping away the effect of the above-mentioned controls from both variables. The estimated coefficient suggests that countries moving from no disclosure of macro-fiscal risks, contingent liabilities, or quasi-fiscal activities to providing some information on all these counts would improve their credit ratings, on average, by a full notch (e.g., from Baa1 to A3 on Moody's ratings).

Fiscal Risk Disclosure and Sovereign Credit Ratings
(Scatter plot of orthogonal components)



Note: The sample consists of 56 countries, surveyed at different points during 1999–2007. The scatter plot reports the orthogonal components of sovereign bond ratings and fiscal risk disclosure to per capita income, GDP growth, inflation, fiscal balance, current account balance, external debt, default history, and political stability.

An alternative approach, based on a cross section of 62 emerging market/developing countries (of which only 24 have market access, that is, issue bonds internationally), explores the relationship of fiscal transparency to market access and then, given market access, to sovereign bond spreads, in a two-stage system. Greater transparency is found to be positively and significantly associated with market access, controlling for other factors such as trade openness and country size; the null hypothesis of no direct relationship between transparency and bond spreads cannot be rejected, however, likely because of the small number of countries for which spreads exist.

Box 3. Disclosure of Contingent Liabilities—International Accounting and Statistical Standards[1]

Accounting Standards (IPSAS). Under *accrual accounting*, contingent liabilities (in the accounting sense of possible payments linked to events that are less than likely to occur) are not recognized as liabilities and expenses in government accounts. However, for each class of contingent liability the government is required to disclose in notes to financial statements (except when the possibility of any payment is remote) a description of the nature of the contingent liability and, where practicable: (i) an estimate of the financial effect, e.g. the present value of any payments; (ii) an indication of the uncertainties about amounts or timing; and (iii) possible reimbursement. If instead the probability that payments would have to be made is more than 50 percent, and the payments can be reliably estimated, then the government is required to recognize in its accounts a liability (referred to as *provision*) and a corresponding expense. Disclosure requirements include: (i) stocks at the beginning and end of the period; (ii) breakdown of the flows during the period; (iii) description of the nature of the obligation and the timing of payments; (iv) indication of uncertainties regarding amount and timing; and (v) amount of any reimbursement.[2] Under *cash accounting*, standards allow, but do not require, disclosure of information about contingent liabilities along the lines set out above.

Statistical Reporting Standards (GFSM2001). Contingent liabilities are recognized as liability only when the contingency materializes and the payment is due, primarily to ensure a consistent set of national accounts with no overlap between liabilities recorded in the public and private sector balance sheets. However, statistical standards require disclosing all contingent liabilities as a memorandum item to the balance sheet, including a description of the nature of the various contingencies and the present value of expected government payments or other indication of their value.

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[1] Draws on *International Financial Reporting Standards*, 2003, International Accounting Standards Board (IASB).

[2] Exemptions from disclosure requirements are allowed when disclosure may prejudice the government's position in a dispute with other parties. In such cases, the general nature of the dispute and the reason for non-disclosure should be reported.

[3] The IASB is considering changes to the treatment of contingent liabilities: the term "contingent liability" may no longer be used and provisions may have to be made for all items currently treated as "contingent liabilities"; the uncertainty about whether a payment is required would cease to be a recognition criterion and, instead, would be reflected in the measurement of the liability.

Country experiences

24. **Risks associated with macroeconomic shocks are disclosed by many countries**. All EU countries, most OECD members, and some emerging market economies (e.g., Brazil, Chile, Indonesia) disclose risks associated with macroeconomic assumptions such as growth, inflation, interest rates, exchange rates and international oil prices—through sensitivity analyses, alternative macroeconomic scenarios, or stress tests for fiscal aggregates. Uncertainty surrounding baseline projections is sometimes illustrated through a fan chart (e.g., the United States' *Budget and Economic Outlook*).

25. **Information on some contingent liabilities—loan guarantees in particular—is also frequently disclosed, though the extent of disclosure varies**. Countries disclosing such information include most advanced economies, the majority of EU acceding states, a third of the remaining emerging and transition economies, and a handful of developing

countries.[18] Reported information usually consists of total exposure measured by the guarantees' face value (e.g., Brazil, Czech Republic, Honduras, Jordan, Mexico, Tanzania), complemented in some cases by the expected cost of outstanding guarantees (Colombia, Chile), guarantees that are likely to be called (Hungary), the flow of new guarantees (Japan), calls on guarantees (South Africa), or revenues from guarantee premiums (the Netherlands).

26. **Disclosure is less frequent for types of risk that have become sizeable more recently or for which quantification is more difficult**. Fiscal risks due to public-private partnerships (PPPs) are disclosed by a growing but still limited number of countries (e.g., Colombia, Chile, Indonesia, Japan, Peru, South Africa, United Kingdom). The information usually consists of a description of the government guarantees granted under PPP contracts, the projects' total value, and expected cash flow payments or their net present value (Budina and others, 2007; Irwin, 2007). For risks that are especially difficult to quantify (e.g., legal claims against the state), information on the nature and scope of such "unquantifiable" risks is provided by few countries (Australia, Indonesia, and New Zealand). Prospective amounts related to legal claims are seldom disclosed, though Brazil and New Zealand sometimes report the gross amount together with a disclaimer that this does not represent an acknowledgement of the government's liability. A few selected "policy risks" associated with government policy changes under consideration are disclosed by New Zealand, whereas other countries' disclosure practices take all government policies as given.

27. **Disclosed amounts for explicit contingent liabilities are assessed using a variety of approaches**. Although most governments disclose only gross exposures, a few also report expected cost estimates. Information on guaranteed amounts and probabilities that guarantees will be called is analyzed and presented in different ways, including stochastic simulations or option pricing models (Chile, Colombia, Peru, Sweden). Risks from contingent liabilities are sometimes assessed using a risk ratings approach.[19]

28. **Disclosure varies considerably across countries in the areas of state-owned enterprises, subnational governments, and off-budget accounts**. These often represent significant fiscal risks both to the budget of the central government, which might be called upon in the event of difficulties, and to the sustainability of the public sector more generally—thus highlighting the importance of broader coverage of the fiscal accounts to reduce fiscal risks. Several countries publish general government accounts or comprehensive

[18] See OECD, *Budget Practice and Procedures Survey* (2007) and European Commission, *Public Finances in the EMU*, No 3/2004.

[19] For example, in South Africa, risk ratings (on a 1 to 10 scale) pertaining to the creditworthiness of individual entities to which the government is financially exposed are based on both *qualitative* criteria (such as industry prospects, corporate governance, quality of management) and *quantitative* criteria (financial ratios, such as return on equity, cost-to-income, debt-to-equity, profitability, and cash flow).

public sector accounts, and two-thirds of the sampled countries publish significant information in these areas. Nevertheless, gaps in coverage remain in many countries.

29. **Few countries follow well-defined rules in choosing what fiscal risks should not be disclosed**. Australia and New Zealand have translated the principle of materiality into specific cut-off points for disclosing individual contingent liabilities, with values below a certain threshold not requiring separate disclosure.[20] New Zealand exempts from disclosure information that is likely to prejudice substantial economic interests of the country; harm the security or defence of the country or the international relationships of its government; compromise the government in a material way in negotiation, litigation or commercial activity; or result in material loss of value to the government.

30. **Several countries have adopted laws that require risk reporting**. Beyond accounting standards, some countries have introduced risk reporting requirements in their fiscal responsibility laws or legislation covering public financial management. These often call for disclosure of government contingent liabilities (e.g., Canada, Chile, Colombia, Czech Republic, France, Peru); in some cases, they also entail comprehensive reporting of all risks that could affect the fiscal outlook: beyond contingent liabilities, these also include sensitivity to economic conditions, and long-term risks associated with demographic changes (e.g., Australia, Brazil, New Zealand, United Kingdom).[21]

31. **A few countries have consolidated information on fiscal risks in a single annual document**. Seven advanced and emerging market economies currently report information on fiscal risks in a single document, which often also discusses efforts to manage fiscal risks through contingency reserves or guarantee funds. (Appendix Table 1 provides the list of countries and a description of disclosed risks.) Risks covered include explicit government guarantees; contingent liabilities from litigation; guarantees to infrastructure operators; the quasi-fiscal deficit of the central bank; natural disasters; and the fiscal outlook's sensitivity to macroeconomic shocks. Some countries also discuss SOE performance and emphasize the need to monitor related implicit contingent liabilities.

32. **Countries have gradually increased the coverage of risks disclosed**. While fiscal risk statements may initially have focused on a limited set of risks, the range of disclosed items has subsequently been expanded, reflecting better information and ability to estimate

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[20] Australia defines as material and requiring individual disclosure those fiscal risks with a possible impact on the forward estimates greater than A$20 million (about 0.01 percent of 2007 expenditures) in any one year, or A$40 million over the forward estimates period. New Zealand uses a similar definition.

[21] Several countries disclose long-term budgetary pressures—such as those related to demographic trends. Australia, New Zealand, the United Kingdom, and the United States, for example, publish stand-alone long-term fiscal sustainability reports, at an annual or multi-year frequency. All EU countries issue long-term public finance projections in their annual updates to stability/convergence programs. Other countries reporting on their long-term fiscal outlook include Brazil and Japan (pension and social security spending).

risks. Colombia, for example, gradually extended the coverage of contingent liability estimates from the central government to other parts of the public sector. In Chile, the government phased in the types of contingent liabilities disclosed—first reporting on minimum revenue guarantees under PPPs and minimum pension guarantees, later including loan guarantees to public enterprises, and finally adding information on student loan guarantees and lawsuits against the state. In Indonesia, the 2009 fiscal risk statement is expected to deepen the assessment of the public enterprise sector.

B. Fiscal Risk Management

33. **Turning to fiscal risk management**, this section considers whether countries (a) mitigate fiscal risks in a cost-effective manner; (b) have in place a legal, regulatory, and administrative framework facilitating effective fiscal risk management; and (c) integrate fiscal risk management in fiscal analysis and the budget process.

Mitigation of fiscal risks

34. **Are fiscal risks mitigated in a cost-effective manner**? Risk mitigation starts with sound macroeconomic policies and appropriate debt management strategies. Beyond this, a clear policy framework helps to assess whether proposals to take on new risks are justified (e.g., in terms of market failure). Mitigation of fiscal risks should be guided by an assessment of which economic agents have the best ability and incentives to manage risk and who is best placed to bear risk. Further measures include modifying activities to reduce risks; transferring risks to, or sharing them with, other parties. Decisions on whether mitigation is needed also hinge on the extent to which various risks are correlated or mutually offsetting.

Country experiences

35. **Fiscal risk management is embedded within countries' efforts to undertake sound macroeconomic policies**. Sound policies such as fiscal deficit/debt reduction and structural reforms—including privatization and public financial management reforms—play a key role in reducing fiscal risks. One area traditionally seen as key to fiscal risk mitigation is public debt management.[22] Many countries have a debt management strategy in place, though the extent to which it is made explicit varies. Several countries have adopted a formal debt management strategy (examples include Armenia, Egypt, Hungary, Indonesia, Italy, Japan, Mexico), and some countries employ explicit targets for debt duration, the maturity profile of debt service, and the shares of floating-rate debt and foreign-currency denominated debt (e.g., South Africa). Debt management techniques—such as swap instruments used to reduce exposure to foreign exchange or interest rate risks—are also fairly common, especially in countries that are highly integrated in global financial markets.

[22] See comprehensive studies in IMF and World Bank (2001, 2003, 2007).

36. **In several countries, risk mitigation has been pursued by requiring the private sector to bear a share of the risk from contingent liabilities**.[23] Risk sharing has been achieved, for example, by providing only partial guarantees, which increase private sector lenders' incentives to assess the creditworthiness of projects and borrowers (e.g., Canada and EU countries, where private sector lenders bear 15–20 percent of the net loss associated with any default). Other risk-sharing arrangements include: time limits for contingent claims; clauses allowing the government to terminate the arrangement when it is no longer needed; and requirements for beneficiaries to post collateral (Australia).

37. **Risk allocation usually aims at having risks be borne by the economic agent best placed to manage them**. Notably, in PPPs, most governments transfer project-specific risks (such as construction, operating, and design/technical risks) to the private sector, while accepting some economy-wide risks (such as force majeure, regulatory and political risks). For risks where neither the public nor private partner has an obvious advantage, approaches have varied.[24]

38. **Few countries make use of financial hedging or insurance instruments to mitigate the potential impact of shocks on their fiscal accounts**. Most countries have been reluctant to engage in hedging operations, perhaps because of accountability implications, cost considerations, or an emphasis on self-insurance (Borensztein and others, 2004; and Becker and others, 2007). Nevertheless, some commodity producers use financial instruments to hedge against commodity price fluctuations (e.g., Mexico for oil price shocks), and a few sovereigns have recently issued catastrophe bonds (e.g., Mexico's earthquake bond in 2006).[25] As markets for such instruments develop further, they may gain prominence in countries' risk mitigation efforts.

Legal and administrative framework

39. **Do countries have in place a clear legal and administrative framework to guide fiscal management and the government's exposure to fiscal risks**? In particular, effective risk management is facilitated by a clear allocation of roles and responsibilities—notably between the central government and the rest of the public sector—with respect to the

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[23] Some countries have formal guidelines for issuing and managing guarantees and other contingent liabilities (for example, Australia, Financial Management Guidance No. 6, September 2003).

[24] For example, demand risk in some cases has been fully transferred to the private partner, often resulting in costly renegotiations (OECD/ITF 2008); in others it has been retained by the government, and concessionaire revenues have been derived from availability payments; elsewhere still (Chile, Colombia, Korea) it has been shared, with a guarantee on either traffic or revenues, based on traffic bands that ensure risk sharing.

[25] In addition, international institutions have designed insurance facilities to manage fiscal risks from natural disasters (e.g., Caribbean Catastrophe Risk Insurance Facility; World Bank, 2007).

collection, investment, and use of public funds. Fiscal risk management may be facilitated by a single government unit with the necessary authority and accountability for monitoring and coordinating the management of the overall level of fiscal risk; this helps take into account possible interactions among different sources of risk. To ensure that fiscal risk management is an integral part of overall fiscal management, such unit could be within the ministry of finance. At the same time, depending on their capacity, it may be desirable for line ministries, departments, and agencies to have some responsibility for managing fiscal risks to which they are exposed.

Country experiences

40. **While a special institutional unit is responsible for the overall management of *most* fiscal risks in few of the sampled countries, dedicated government units are responsible for managing *specific* fiscal risks in several countries**. The monitoring of most fiscal risks is concentrated in a single central unit in South Africa. A recently-established risk management unit analyzes most fiscal risks in Indonesia (a separate unit is responsible for debt management). Specialized units for debt management exist in many countries at all levels of development. Over the past few years, several countries have also extended the scope of their debt management offices to monitor and manage risks from contingent liabilities (Currie, 2002). In addition, some countries have established specialized units for SOEs; subnational governments; PPPs; and risks from legal claims against the state (Table 2).

41. **In several countries, line ministries have considerable responsibilities for fiscal risk management, and arrangements are in place to hold them accountable**. In these countries (usually with advanced risk monitoring and management practices), line ministries or individual departments are responsible for their own budgets and financial management (including issuance of guarantees, typically with government concurrence and maintenance of a register of contingent liabilities). Direct involvement of line ministries in fiscal risk management includes: oversight and management of SOEs; examination of budgets and borrowing plans of major public institutions; supervision of development funds; and monitoring of infrastructure projects and PPPs.

42. **The degree of centralization in risk management of PPPs, SOEs, and subnational governments reflects various factors**. Decentralization to line ministries seems to be associated with a higher degree of institutional development, whereas decentralization to subnational governments reflects primarily historical and political factors. Country examples for PPPs and subnational governments are provided in Boxes 4 and 5, respectively.

43. **In some countries, the supreme auditing institution (SAI) plays an important role in ex-post monitoring of activities that create fiscal risks**. This mostly involves auditing and certifying the government accounts, and includes monitoring the accounting and accurate reporting of activities that create fiscal risks. The SAI's coverage depends on

Table 2. Role of Specific Risk Management Unit, Line Ministries, and Supreme Auditing Institution—Selected Country Experiences

Specific Risk Management Unit	Line Ministries	Supreme Auditing Institution (SAI)
For *many* fiscal risks *South Africa:* National Treasury's asset and liability management division monitors and manages risks associated with government debt and contingent liabilities. *Indonesia:* recently-established risk management unit within the ministry of finance analyzes fiscal risks of SOEs, government support to infrastructure projects, and global economic risks; separate units are responsible for debt management and subnational governments. **For *specific* fiscal risks** Debt management: many countries; moreover, some debt management offices have extended their scope to monitor and manage risks from contingent liabilities (*Canada, Czech Republic, Colombia, Denmark, New Zealand, and Sweden)*. PPPs: *Czech Republic, Egypt, Honduras, Hungary; and Mexico* (in context of broader investment unit). SOEs: *Brazil, Kenya*. Subnational governments: *Indonesia, Peru*. Risks from legal claims against the state: *Ghana*. Pensions/Social Security: many countries.	*Netherlands:* budget management is delegated to financial affairs directorates in the line ministries; each ministry has its own financial management system, but has to comply with its budget allocation and the overall expenditure ceilings. *South Africa:* departments and public entities are responsible for risk management; internal control (including issuance of guarantees, with the concurrence of the Minister of Finance, and maintenance of a register of contingent liabilities) for a given unit is assigned to its accounting officer. *France:* recent budgetary reforms have decentralized fiscal management and strengthened the role of program managers in internal control and risk management. *New Zealand:* departmental chief executives are responsible for financial management and financial performance of their departments, including risk management; each department maintains a register of contingent liabilities. *Armenia:* line ministries are accountable for the prudent management of fiscal risks of entities they established or to which they provide guarantees. Direct involvement of line ministries in fiscal risk management also applies to: oversight and management of SOEs in *Kenya* and *Hungary*; examination of budgets and borrowing plans of major public institutions in *Japan*; and monitoring of large infrastructure projects and PPPs in *Saudi Arabia*.	The SAI's involvement in auditing and certifying the government accounts includes aspects of monitoring the accounting and reporting of fiscal risks. In particular, this applies to: • Contingent liabilities: e.g., *Ghana*, *Russia*; • SOEs: *South Africa, Kenya, Indonesia, Japan, Hungary, Lebanon, Philippines;* • Subnational governments: *South Africa, Kenya, Japan, BIH;* • Some extra-budgetary funds: *Kenya, Indonesia, BIH;* • Pension and petroleum funds: *Norway*. *Czech Republic:* audit coverage includes all public institutions that receive state guarantees, foreign loans, or money from the budget. *Hungary*: State Audit Office assesses credibility of expenditure and revenue estimates and monitors local government financial management. *Philippines:* Audit Commission adopts remedial measures where internal control systems of audited agencies are deemed insufficient. *UK:* national audit office audits key assumptions underlying budget projections (at least once every three years). In a number of countries, the SAI monitors all aspects of the execution of the budget, including fiscal risks (e.g., *Italy, France*).

Source: Questionnaire replies by IMF staff and country authorities.

whether audited government accounts also cover contingent liabilities, SOEs, subnational governments, extrabudgetary funds, and public financial institutions. For example, in New Zealand, the Office of Controller and Auditor-General (OAG) audits the government's financial statements, including statements of contingent liabilities. In addition, the OAG has initiated audits of specific risks, such as foreign exchange risks incurred by SOEs, the central government's use of derivatives, and the effectiveness of the debt management office.

Box 4. Public-Private Partnerships (PPPs) and Fiscal Risks in Selected Countries

Indonesia. PPP proposals are submitted to the recently-created PPP unit, which decides whether they meet technical and financial feasibility criteria. The risk management unit of the ministry of finance evaluates costs that may arise from government support to PPPs and helps ensure that this support is transparent. If the request for government support is approved by the minister of finance, an allocation of funds is then proposed in the draft annual budget. A list of PPPs together with government support and gross exposure is presented in the fiscal risk statement.

South Africa. The accounting officer or authority of the public institution involved in the PPP project is responsible for monitoring and managing it. Fiscal costs of existing PPPs are captured in the budget review and the medium-term budget policy statement; a list of existing PPPs, together with government commitments, is published quarterly. The accounting treatment of PPPs is currently under review. New standards are expected to require the recording of contingent liabilities from PPPs on the government's balance sheet.

Hungary. PPPs are handled by several government institutions: the promoting ministry or agency, an interministerial committee on PPPs, the council of ministers, and (for projects above a certain threshold) parliament. The interministerial committee can propose amendments to existing regulations on PPPs, express its opinion on specific projects, and monitor and evaluate their implementation. The ministry of finance proposes a ceiling on budget commitments associated with PPPs.

Netherlands. Limited experience so far, but likely to gain importance. PPPs are managed by line ministries, though the ministry of finance oversees project implementation. The ministry of finance provides information on Eurostat rules and examines whether (i) the use of a PPP is preferable to traditional public investment forms; (ii) PPP project costs are within the multi-year budget; and (iii) PPP-related expenditures fit in the overall expenditure framework. The current policy is to encourage specialized PPP knowledge centers in line ministries and decentralized development of simple PPP arrangements by municipalities.

Fiscal analysis and budget process

44. **To what extent are fiscal risks systematically incorporated in the budget process and medium-term fiscal analysis**? When determining fiscal targets, allowance needs to be made for the possibility that some risks will materialize. Likewise, budgetary mechanisms (such as a contingencies appropriation) should provide adequate flexibility to handle risks that arise during budget implementation, while preserving the integrity of the original budget. In the case of government guarantees and other contingent liabilities, a close integration of fiscal risk management and the budget process calls for decisions over such liabilities to be incorporated in the annual budget cycle. Moreover, given the medium- or

long-term nature of many contingent liabilities, it is important to assess their implications for fiscal sustainability.

Box 5. Controlling Fiscal Risks from Subnational Levels of Government

In several sampled countries, the central government seeks to reduce fiscal risks from subnational governments through rules on their borrowing operations. For instance, local governments are not allowed to borrow, or are required to maintain low debt levels, in Armenia, Egypt, Ghana, Jordan, Lebanon, and Saudi Arabia. Local governments' borrowing is subject to ceilings in Hungary and Japan and is only allowed for investment purposes in the Netherlands and France. Limits on subnational government borrowing are common in other advanced countries.

In case of default or noncompliance with rules, legislation in the countries considered permits the following actions:

- **Withholding of transfers**. The central government can withhold transfers to subnational levels of government if these fail to meet debt service obligations (Bosnia and Herzegovina, Indonesia, Russia). In Peru, noncompliance with fiscal rules would preclude regional and local governments from accessing the three main equalization funds available.
- **Further borrowing restrictions**. Local governments might not be allowed to borrow if they breach debt ceilings, and bond issuance would be limited for local governments whose fiscal deficits are considered too high (Japan).
- **Asset liquidation**. The minister of finance can order the liquidation of assets belonging to local authorities in default (Tanzania).
- **Restructuring plans**. Local governments might be required to develop plans for restructuring and improving their finances to ensure that they can service their debt obligations (Indonesia, Japan).
- **Direct control by the center**. In Russia, when local governments are in default, or their indebtedness exceeds 30 percent of revenues, a temporary financial administration (at the central level) may be set up to manage their operations. In Peru, the President can adopt fiscal measures deemed necessary to stabilize subnational governments' fiscal operations.

Country experiences

Contingency appropriations

45. **Most countries include contingency appropriations for unforeseen spending needs in the budget**. In some countries, contingency amounts proposed by the ministry of finance for parliamentary deliberation and inclusion in the budget are subject to ceilings set by law. The size of contingency appropriations is usually small—in the majority of cases, below 3 percent of total expenditure (Table 3).

46. **In several countries, spending financed from the contingency appropriation requires parliamentary approval and/or can only be triggered by pre-specified factors**. Triggers usually include natural disasters and called guarantees. In some instances, contingencies are triggered by changes in budgetary assumptions (e.g., international fuel prices) or the need to finance new laws passed during budget implementation. As

Table 3. Contingency Reserves/Appropriations, Selected Country Experiences

Country	Size/limit	Purpose of contingencies	Other features
Armenia	Maximum 5 percent of total expenditures.	General, mainly natural disasters; support for budget guarantees.	A contingency reserve fund is included in the budget. Its use can be authorized by the executive branch.
Bosnia and Herzegovina	Maximum 3 percent (2.5 percent) of projected revenue from the State (Federation and Republic Srpska); equivalent to 3 percent of spending.	Revenue shortfalls; international disputes/arbitration; financing new institutions; grants to non-profit organizations; exceptionally, for other purposes.	Fixed limits on contingency spending are set by law. Use of contingency reserve can otherwise be authorized by the executive branch.
Brazil	0.5 percent of total expenditures.	Guarantees; potential legal liabilities; subsidized loans (mainly agriculture) and liquidation of SOEs.	The PPP law envisages creating a fund to cover any contractual guarantees under the rules specified in the law and regulations.
France	0.15 percent reserve for wage bill; 5 percent reserve for other approprations.	Wage bill; other appropriations.	The reserves are included in the budget to ensure that its execution falls with the ceiling established by the budget law. Fixed limits on contingency spending are set by law.
Honduras	2 percent of projected current revenue (about 1.7 percent of total expenditures).	Disasters; co-financing of foreign investment projects; unfunded mandates; bridge loans for public entities to be repaid by fiscal-year end.	The budget always includes a contingency fund of 2 percent of projected/budgeted current revenues. Fixed limits on contingency spending are set by law.
Hungary	0.5–2 percent of central budget expenditure, for general reserve; 0.9 percent of GDP for both general and equilibrium reserves.	General reserve is for unforeseen expenditures or to compensate for planned revenue; equilibrium reserve is to ensure compliance with deficit targets.	Equilibrium reserves are included for line ministries and the central budget.
Indonesia	Rp 2–3 trillion for natural disasters, Rp 2–4 trillion for infrastructure in 2007 (0.3-0.5 percent of total expenditures).	Natural disasters; government support/guarantees related to infrastructure spending.	The contingency for infrastructure guarantees is set up in a separate fund.
Japan	0.05 percent of total expenditures.	Natural disasters; nuclear damage.	The budget also includes government guarantees (e.g., for deposit insurance).
Jordan	1.8 percent of GDP (4.8 percent of total spending).	Subsidies (e.g., fuel and food subsidies, social safety net, scholarships).	Main contingency expenditure item is a separate program within MOF budget. Other line ministries also have provisions for subsidies.
Nigeria	2–5 percent of total expenditures.	General.	In addition, three extrabudgetary funds are used for contingency spending (natural disasters, stabilization objectives, additional capital spending)
Philippines	0.7 percent of GDP (3.9 percent of total expenditures).	Disasters; support to public corporations or foreign-assisted projects; strategic government reforms; pensions and separation benefits.	Includes a number of special-purpose funds, such as Calamity Fund, Contingent Fund, and Unprogrammed Fund. Use of contingency reserve can be authorized by the executive branch.
Russia	Maximum 3 percent and 1 percent of total spending for general and presidential reserve funds, respectively.	Loan guarantees; unforeseen expenditure.	Starting with 2008 budget, additional reserve of 5 percent of total expenditure. The 2008–10 budget allows around 0.1 percent of GDP yearly for guarantee calls. Fixed limits on contingency spending are set by law. Use of contingency reserve can otherwise be authorized by the executive branch.
South Africa	½–2½ percent of central budget expenditures.	General; the reserve allows for unforeseen and unavoidable expenditure (e.g., natural disasters or programs announced in budget but not yet appropriated).	Within the main budget, a contingency reserve is set aside for each of the next three years. In the outer years, the reserve is partly drawn down to fund new priorities.

Note: The size of the contingency reserve refers to the most recent year for which information is available.

documented in Table 3, country practices in using contingency funds vary regarding the purposes for which the contingency reserve can be spent and the degree of oversight or approval required from parliament.

Government guarantees

47. **Several countries have integrated decisions on guarantees into the budget process**. The main objective is to ensure that guarantee costs are internalized, thus reducing the bias in their favor compared to conventional expenditures. In cases where guarantees are not intended as subsidies, several countries charge the recipient a fee reflecting the guarantee's market cost (Canada and EU countries—see Box 6 for Sweden's approach to dealing with guarantees). In cases where guarantees are intended to provide a subsidy element, a number of countries charge fees against the budget of the sponsoring line ministry. These fees reflect the expected net present value of the guarantees' lifetime costs (Canada, Netherlands, Sweden, United States)—thus including a feature akin to "accrual budgeting" for guarantees—or the expected cost of the guarantees during the upcoming budget year (Colombia). Given the difficulties in calculating the expected value of guarantees, some countries charge line ministries "origination fees" equal to a small percentage of the guarantees' face value.

Box 6. Sweden's Framework for Guarantees[1]

Sweden has a well-developed framework governing the issuance of guarantees and their integration into the budget process, and for minimizing incentives and opportunities to provide subsidies through guarantees.

Approval. A guarantee can only be issued based on a decision by parliament.

Guarantee fees and integration with the budget. A fee must be charged for all guarantees, unless parliament decides otherwise. The fee is set to cover the guarantee's expected cost and is paid directly to the state by the guarantee's recipient. If parliament decides that a fee should not be charged (and this is allowed under state aid rules), then budget funds must cover the fee. As a result, a subsidized guarantee is treated in the budget process in a way akin to a direct subsidy. These rules ensure that subsidy elements in guarantees are recorded in the budget, and that the government either gets a payment from the guaranteed firm or, in the case of a subsidized guarantee, that other expenditures are reduced.

Setting guarantee fees. Once the conditions for the guarantee have been determined, the responsibility for pricing the guarantee rests solely with the Swedish National Debt Office (SNDO). Neither parliament, nor the government has any direct say in pricing decisions. To determine the appropriate fee, the SNDO analyzes specific project risks covered by the guarantee, by reference to rating analysis, option pricing, or simulation models.

Contingency Fund. Guarantee fees are paid into a notional contingency fund. Fees paid thus reduce central government debt, but should leave more room to borrow if the guarantee is called upon.

Called guarantees are covered by the contingency fund, not the budget. The contingency fund account can be overdrawn without limit, ensuring that the state cannot end up in technical default.

[1] Draws on Hörngren (2003).

48. **The issuance of government guarantees is often subject to further constraints**. Issuance often requires parliamentary approval (France, Ghana, Japan, Kenya, Sweden) or is subject to explicit limits (Czech Republic, Japan, Netherlands, Russia). While in some countries line ministries (or guarantee agencies) review guarantee applications and report on circumstances providing for payments under the guarantee, issuance often needs to be authorized by parliament (Armenia, Czech Republic, Hungary, Tanzania), the government, or the ministry of finance (e.g., South Africa).

49. **In a few countries, guarantee charges are set aside in contingency funds to meet future calls on guarantees**. These funds can be notional, and thus track resources without accumulating them (Sweden, United States), or actual, and thus invest resources in financial assets (Chile, Colombia). The resources set aside in contingency funds can be either pooled to meet calls on the entire guarantee portfolio (Sweden, United States) or strictly earmarked for specific guarantees (Colombia).

IV. Fiscal Risk Disclosure and Management—Lessons

50. **This section draws some broad lessons from the international experience, recognizing that approaches differ on some issues**. It then presents a more detailed set of Guidelines for Fiscal Risk Disclosure and Management, informed by the international experience presented in the previous sections, manuals or codes on transparency, and previous studies on specific aspects of fiscal risk. Broad lessons include the following:

Fiscal risk disclosure

- *Fiscal risks could be usefully presented in a single "Statement of Fiscal Risks."* This could be part of the budget documents submitted to parliament to help inform its fiscal policy decisions. It would include an analysis of the sensitivity of budget estimates and public debt projections to key macroeconomic assumptions, as well as a range of contingent liabilities as discussed above.[26] A possible format for such statement is presented in Appendix I. For countries that already disclose all relevant risks in separate documents, there may be merit in consolidating the information in a single document, though the additional benefits may be limited.
- *Although it is desirable to disclose most fiscal risks, the need to minimize moral hazard or to avoid disadvantaging the country economically or in negotiations would call for clearly defined exemptions*. For instance, reporting on implicit contingent liabilities might be inappropriate if it were perceived as an unconditional guarantee of financial assistance, thus resulting in moral hazard. Similarly, it might be detrimental

[26] The budgetary and debt implications of long-run developments such as population aging, health care, natural resource depletion, or climate change (see International Monetary Fund, 2008), should also be assessed and disclosed—preferably in a separate report on long-term fiscal challenges.

to disclose information that would harm the government's position in litigation or negotiations. This said, fiscal policy should be set taking into consideration all fiscal risks, including those that are not disclosed or explicitly quantified.

- *When the government is widely expected to assume an implicit liability if called upon, consideration could be given to establishing an appropriately-funded explicit, but limited, guarantee*. This would be appropriate, for example—if market conditions are benign—when there are clear expectations that the government would bail out depositors despite the absence of an explicit banking deposit guarantee.

Fiscal risk management

- *Efficient risk mitigation involves risk sharing with other parties based on an assessment of which economic agents have the best ability and incentives to bear and manage risks*. Risk sharing (through mechanisms such as partial guarantees) is especially desirable with those parties that are able to influence risk outcomes, so as to provide adequate incentives. To mitigate the demand for guarantees, fees (reflecting market values) could be also charged when there is no intention to subsidize the guarantees' recipients.
- *A clear legal and administrative framework needs to guide the allocation of roles and responsibilities in risk management, both between the central government and other public sector entities, and between the ministry of finance and line ministries*. Fiscal risk management may be facilitated by a central unit of government with the necessary authority and accountability for monitoring the overall level of fiscal risk and coordinating its management; this helps to take into account possible interactions among different sources of risk.[27] At the same time, the desirable degree of centralization in risk management depends on country characteristics. It would seem appropriate for the center (the ministry of finance) to have significant control on risk-taking by line ministries when these have weak incentives to manage their portfolios prudently or when their actions can impose costs on others. On the other hand, excessive involvement of a central agency may be inefficient and may limit budgetary flexibility; in those circumstances, devolution of some functions to line ministries may be appropriate, depending on the extent to which spending ministries are held accountable for budget management, including risk management.
- *Making prudent budgetary allowance for contingent liabilities and emergencies requires allocating sufficient resources to a contingency appropriation to meet such expenditure during the budget year*. The appropriation should be under the control of

[27] The unit would usually be located within the ministry of finance. In countries where a risk management unit does not yet exist, a possible option is to extend the debt management office's (DMO) mandate to cover management of contingent liabilities. This would build on the DMO's expertise in managing the implications of a realization of contingent liabilities for a country's debt level and on the DMO's proximity to financial market reactions to issuance of contingent liabilities.

the ministry of finance, with access granted under stringent conditions, and with ex-post reporting of the disposition of the contingencies appropriation. As noted above, in international practice the contingency reserve seldom exceeds 3 percent of total expenditures (a limit suggested by Potter and Diamond, 1999).

- *For fiscal risks to be properly incorporated in decision making, contingent obligation proposals need to be considered alongside competing instruments*. While decisions to commit public resources should, in principle, be reflected in the budget at the time they are made, contingent obligations are characterized by uncertainties related to the timing and extent to which they may become due. This creates a possible "bias" in favor of guarantees under cash budgeting: grants, subsidies, and loans reflect their full cash impact, whereas guarantees may be viewed as "less expensive." To address this issue, the following budgetary practices might be considered:

– *Under cash-based budgets, at least the expected cash cost of payouts to meet calls on guarantees in the budget year should be appropriated*. This could take the form of either a general contingencies appropriation (see above) or a separate guarantees appropriation.

– *Alternatively, the full expected NPV cost of guarantees could be appropriated*. This might reduce the bias in favor of guarantees, but would require reliable expected cost estimates and would introduce an element of accrual budgeting against a background—for most countries—of largely cash-based budgets.

– *An annual quantitative limit on guarantees could instill discipline in the allocation of guarantees among competing projects.* The limit (on the outstanding stock or the annual flows) would be based on an assessment of sustainability. The total guarantees budget would then be allocated among individual agencies with competing priorities.

– *A fee-based guarantees fund could be set up to meet the cost of calls on guarantees*. This might facilitate tracking the experience with guarantees and strengthen the government's credibility as a contracting partner. An "origination fee" could also be imposed on the sponsoring ministry. Such fees, which could be higher for riskier projects, would establish a link to the budget process and would ensure that guarantees are not treated as free goods. Like other off-budget funds, however, a guarantees fund could introduce rigidities in cash management.

51. A more comprehensive set of Guidelines for Fiscal Risk Disclosure and Management (intended to complement the existing Fiscal Transparency Code) provides further suggestions aimed at helping policy makers identify potential improvements to an existing framework. The guidelines relate to (i) identification and disclosure of fiscal risks; (ii) clarity of the legal and administrative framework; (iii) the framework for cost-effective risk management; and (iv) the implications of fiscal risks for the conduct of fiscal policy. In addressing these issues, the guidelines touch on more general features of sound fiscal policies that are especially relevant for keeping fiscal risks in check.

GUIDELINES FOR FISCAL RISK DISCLOSURE AND MANAGEMENT

1. Fiscal risks to which the government is exposed should be identified and disclosed, so as to facilitate an effective conduct of fiscal policy

Identification of fiscal risks is a prerequisite for risk disclosure and management. Although risks may be adequately identified in the absence of disclosure, a commitment to making information on fiscal risks publicly available subjects the analysis to additional scrutiny, helping to ensure that risks are fully recognized and properly assessed. Moreover, disclosure may help to manage risks and reduce borrowing costs in the long run. Transparency also strengthens accountability for effective risk management; improves the quality of decisions on whether the government should take on risk in the first place; and promotes earlier and smoother policy responses.

Availability of information on fiscal risks

- A list of all material fiscal risks to which the government is exposed should be compiled, together with an indication of their relative importance; whenever possible, risks should be quantified in terms of amounts (point estimate and range) and probability of occurrence.
- Each government unit should communicate to the risk monitoring agency (typically within the ministry of finance) all information it has on sources of fiscal risks; in particular, entities that issue government liability instruments (including contingent ones) should maintain and communicate a register with the details of all the instruments.
- To reduce exposure to risks arising from non-financial public enterprises, public financial institutions, the central bank, and sub-national governments, the ministry of finance should routinely monitor and report on the fiscal performance and financial position of these entities; the extent of monitoring should be commensurate to the degree of fiscal risk.
- Procedures should be in place to provide independent assurance of the integrity and robustness of the assumptions underlying the budget, including the government's macroeconomic forecasts.

Legal/accounting framework regarding the disclosure of fiscal risks

- There should be a presumption that information on fiscal risks should be published, with exceptions based on clearly defined criteria relating mainly to the materiality of fiscal risk exposure and the possibility that disclosure might engender moral hazard (e.g., through perceived blanket guarantees in the banking system) or prejudice the national interest (e.g., in wage negotiations or legal disputes). It would be desirable for the timely publication of information on fiscal risks to be a legal obligation of the government. The government's accounting policies should be reviewed to ensure that, to the extent possible, they provide relevant information on fiscal risks, consistent with international accounting standards. Notably, the government's accounting standards should require disclosure of information on contingent liabilities.

Disclosure practices

- The budget documentation should include:
  - an assessment of fiscal sustainability;
  - discussion of overall fiscal risk management strategy, including priority areas for risk mitigation;
  - alternative macroeconomic scenarios or sensitivities of the fiscal aggregates to changes in assumptions;
  - statements describing the nature and fiscal significance of quasi-fiscal activities, together with related fiscal risks;
  - discussion of public debt management strategy, risks in the portfolio, and risk mitigation;

- information on contingent liabilities, including (see *Manual on Fiscal Transparency*): (i) a classification of outstanding contingent liabilities by major category; (ii) a description for each category of why and how the government takes on such risks; (iii) the fiscal significance of outstanding contingent liabilities by major category (quantification should include the total exposure under the liability and, where feasible, the expected value); (iv) information on major individual contingent liabilities, including a description of their nature, scope and quantification; (v) past calls on the government to meet contingent liabilities; (vi) for each new contingent liability, its public policy purpose, duration, and the intended beneficiaries; and (vii) information about any assets set aside against specific contingencies.

- Budget documentation could also include information on: (i) PPPs (perhaps as a separate report in countries where the size of the PPP program warrants it), indicating for each project the government's contingent liabilities and future contract payments; (ii) state-owned enterprises and sub-national governments; and (iii) the objectives and operations of extra-budgetary funds—including any revenue or expenditure stabilization funds.
- The government should publish information on realized risks, including annual ex-post reviews of budget macroeconomic and fiscal forecasts against outcomes, with analysis of reasons for deviations.
- Information on fiscal risks presented in the annual budget documents could usefully be compiled into a single Statement of Fiscal Risks (see Appendix 1).

2. Fiscal risks should be mitigated in a cost-effective manner

Efficient risk mitigation—efforts to address or reduce potential fiscal risks before they are taken on or before they materialize—involves a combination of: modifying the activity to reduce risk; taking up insurance or otherwise transferring the risk to, or sharing the risk with, other parties, particularly those that are able to influence risk outcomes; allocating risks based on an assessment of which economic agents have the best ability and incentives to bear and manage risks. A clear policy framework on fiscal risk mitigation helps assess the justification for proposals to take on new risks; independent expert review is also helpful in this area.

- A clear policy framework should be in place for assessing whether the government should take on a fiscal risk. The government's priorities for mitigating fiscal risks should consider the expected net benefits from risk reduction while paying attention to: the possibility of extreme realizations imposing unacceptably large fiscal costs; the interactions between different risks; and scenarios in which a number of risks materialize at the same time. The specific rationale for taking on a risk (e.g., issuing a guarantee) should be documented and available for subsequent review.
- Fiscal risks should be allocated based on which economic actor has the best ability and incentives to manage them, and who is best placed to bear them. For example, in PPP contracts or guarantees, the government should bear the risk of future changes to the policy or regulatory environment; private sector agents should bear risks over which they have some control, either in terms of reducing the probability of loss (e.g., construction risk) or their exposure to loss (e.g., foreign exchange risk).
- The state should consider issuing contingent liability instruments only in cases of externalities/market failure (e.g., where markets are unable to take on large risks even though it is socially desirable to do so), or where the government is better placed than other parties to manage risks it finds necessary to take.
- Economic actors that influence the government's fiscal risk exposure could pay a charge for their reduced risk exposure, or bear at least some risk at the margin.

- There may be policy justification for imposing ex ante controls on the risk-taking activities of economic actors that have weak incentives or impose costs on others through their actions (for example, limits on borrowing or on the issuance of guarantees by sub-national governments, to minimize the macro/fiscal risk involved in their potential bailout).
- When a risk materializes and the central government intervenes to absorb costs incurred by other entities, this should be done in a way that preserves or strengthens incentives for future risk management.
- Guarantee proposals should be subject to scrutiny and appropriately designed prioritization, to balance insurance and incentive considerations. This could be attained, for example, through guarantee fees; partial guarantees; quantitative ceilings; termination clauses; or requirements for collateral.

3. There should be a clear legal and administrative framework to regulate overall fiscal management and the government's exposure to fiscal risks

Effective management of fiscal risks that remain after mitigation efforts hinges on a clear allocation of roles and responsibilities—notably between the central government and the rest of the public sector (including subnational governments)—with respect to the collection, investment, commitment, and use of public funds. Fiscal risk management may be facilitated by a central unit of government with the necessary authority and accountability for monitoring the overall level of fiscal risk and coordinating its management, taking into account possible interactions among different sources of risk. To ensure that fiscal risk management is an integral part of overall fiscal management, such a unit could be within the ministry of finance. At the same time, it may be desirable (subject to capacity constraints) for line ministries and agencies to have some clearly specified responsibilities for prudently managing fiscal risks to which they are exposed.

Relationships between different levels of government

- The entity with primary interest in managing the fiscal position (typically the ministry of finance) should be responsible and have the necessary authority for overall monitoring and management of fiscal risks.
- Fiscal risk responsibilities of different levels of government, and the relationships between them, should be clearly specified. In particular, the legal framework should be clear as to who may authorize borrowing, investment, and issuance of contingent obligations.
- There should be a centralized technical capability for analysis and advice to government, and for technical support to line ministries and other public sector entities, on specific aspects of fiscal risk management (e.g., on PPPs, in a PPP unit).
- The government should fully and timely compensate public enterprises, the central bank, and public financial institutions, from the central government budget, for non-commercial obligations it requires them to undertake.

Risk management

- To the extent that departments/agencies are allowed to take on risks, each department/agency head should be responsible for the prudent management of such entity's fiscal risks, and should be required to have a risk management strategy in place.
- An assessment of fiscal risks should be conducted before the government enters into contractual arrangements with public or private entities, including resource companies and operators of government concessions. Such arrangements should be: clear about the apportionment of fiscal risk; appropriately reflected in government accounts; and publicly accessible, to the extent possible.

- The responsibility for taking on risks should be separate from the responsibility for estimating their potential fiscal costs: for example, line ministries responsible for issuing guarantees should not be tasked with assessing the expected cost of such guarantees without outside supervision; guidelines should be in place on how to "price" risks.
- It is desirable to subject fiscal activities that create risk (including those undertaken off-budget) to internal audit as well as audit by the supreme auditing institution.

4. Fiscal risks should be systematically incorporated in fiscal analysis and the budget process

When determining fiscal targets, allowance needs to be made for the possibility that some risks will materialize. In the case of government guarantees and other contingent liabilities, a close integration of fiscal risk management and budget process calls for decisions over such liabilities to be incorporated in the annual budget cycle, and for analyzing the implications of the medium- or long-term nature of many contingent liabilities for fiscal sustainability.

Incorporating risk analysis in the macroeconomic policy framework

- The government's exposure to fiscal risks should be incorporated in fiscal sustainability analysis.
- The government should have in place a strategy regarding how fiscal policy would respond to unexpected changes in revenues or expenditures. For example, in situations of high revenue volatility, mechanisms (e.g., binding expenditure ceilings) should be in place to ensure that temporary revenue increases do not automatically result in excessive spending.
- The general risk of uncertain expenditures in the budget year may be handled through a limited annual centralized contingency appropriation, whose magnitude reflects country-specific circumstances (e.g., the frequency and cost of natural disasters). This may provide adequate flexibility to manage risks that materialize during budget implementation, while preserving the integrity of the original budget.

Guarantees and contingent obligations

- Decisions over issuance of guarantees and other contingent obligations should be integrated with the annual budget cycle so that proposals are considered alongside competing instruments and programs intended to achieve similar objectives.
- A framework should be in place to require parliamentary approval of guarantees to be issued, whether through an overall ceiling on guarantees, a ceiling on broad categories of guarantees, or approval of individual guarantees.
- An annual budget appropriation could be included to cover expected calls on guarantees in the fiscal year, either in a general contingency appropriation or, where the likely costs are significant and can be estimated, in separate appropriations for anticipated calls on individual guarantee programs (e.g., a housing loan guarantee program).

V. CONCLUSIONS

52. Various types of shocks cause fiscal outcomes to deviate from budgets and expectations—often by large amounts. Evidence presented in the paper has shown that macroeconomic shocks and calls on contingent liabilities often have major implications for fiscal sustainability. Over the past few years, several member countries have increasingly disclosed fiscal risks, both to build public support for prudent fiscal policies and to improve financial market access at reasonable cost. The paper has documented a variety of approaches

adopted by member countries with respect to mutually supporting identification, disclosure, and management of fiscal risks.

53. A number of broad messages emerge from the review of country experiences:

- For effective identification of all fiscal risks—a prerequisite for disclosure, management, and a fully informed conduct of fiscal policy—procedures need to be in place to ensure that the entity that plays the key role in determining fiscal policy (typically, the ministry of finance) has access to all relevant data. This requires clear allocation of responsibilities for the various parts of the public sector in assessing and reporting fiscal risks they face or incur.

- Comprehensive disclosure of all fiscal risks would seem desirable, to facilitate identification and management of risks, and to help reduce borrowing costs in the long run. Notwithstanding these advantages of disclosure, quantification may not always be feasible or desirable. For example, in the case of some implicit guarantees, the absence of contractual terms makes it difficult to disclose specific amounts. More generally, disclosure should avoid engendering moral hazard from a perception of an implicit blanket guarantee (e.g., in the banking system) and ensure that the state's economic interests are not prejudiced (e.g., with respect to legal claims or public wage negotiations). In such cases, the government might decide to disclose the nature of the risks, without quantification. This said, fiscal policy objectives need to be set taking into account all risks, including those that may not be precisely quantified or disclosed. For risks that are disclosed, there is merit in reporting them in a single document, such as a statement of fiscal risks presented with the annual budget.

- Cost-effective risk mitigation begins with sound macroeconomic and public financial management policies—areas on which policymakers should initially focus, especially in countries at relatively low levels of development. Beyond this, mitigation involves a combination of insurance and mechanisms providing for governments to commit to contingent expenditures only when there is sufficient justification, e.g., in terms of market failure. In practice, the use of insurance instruments remains limited, although it may increase as markets for innovative instruments develop further. For most countries, risk mitigation will thus mainly consist of practices that require justification for taking up fiscal risks, and that make it necessary for private sector agents to pay guarantee fees or to share in the risk (e.g., partial guarantees).

- Fiscal risk management is also facilitated by a legal and administrative framework clarifying relationships between different levels of government and vis-à-vis the private sector—for example, by spelling out who can authorize government borrowing, investment, and the issuance of contingent obligations, and which entity is responsible for audits in these areas.

- For fiscal risks to be properly incorporated in fiscal policy decision making, not only accurate information but also suitable procedures are required in the budget and contingent liability approval process. For example, contingent obligation proposals may need to be considered alongside competing instruments; and ceilings on broad categories of guarantees to be issued during the fiscal year may need to be subjected to parliamentary approval during the budget process.

54. Building on these considerations and informed by the international experience, a set of guidelines for fiscal risk disclosure and management has been presented. This may be a useful resource for policymakers seeking to identify possible gaps in their current practices in that regard. The implications for the design of more specific measures will need to be traced against the background of individual country circumstances. More generally, the relative importance of various types of risks is likely to evolve over time: in that light, it would seem desirable for countries to continue to adapt to the times by learning from each other with respect to fiscal risk disclosure and management practices.

APPENDIX I: POSSIBLE STRUCTURE OF STATEMENT OF FISCAL RISKS

This appendix provides a possible structure of a statement of fiscal risks, to be adapted depending on country characteristics—such as the relative importance of different types of shocks, institutional arrangements (e.g., the central government's implicit or explicit responsibilities in the event of financial difficulties experienced by subnational governments), and the level of disclosure of long-term risks. The statement would typically begin with the government's description of how its overall fiscal strategy has reduced fiscal risks, and an indication of the importance of greater fiscal transparency for the reliability and credibility of fiscal policy.

The statement could address sources of fiscal risks including: (a) macroeconomic risks and budget sensitivity; (b) public debt composition; (c) contingent central government expenditures; (d) public-private partnerships; (e) state-owned enterprises; and (f) subnational governments. Further possible topics include future pension liabilities in the event these are not covered in a separate statement of long-term risks. For each source of risk, forward-looking expected cost estimates would be complemented by quantitative information on costs incurred as a result of past shocks.

A. Macroeconomic Risks and Budget Sensitivity

Discussion of the macroeconomic forecasting record in recent years, comparing the assumptions used in budget forecasts against actual outcomes.

Sensitivity of aggregate revenues and expenditures to variations in each of the key economic assumptions on which the budget is based (e.g., impact of exchange rates and interest rates on revenues and expenditures), with explanation of underlying mechanisms. Possible methods and presentational devices include alternative scenarios or fan charts. In conducting these exercises, it is desirable to take into account the correlations among different shocks.

B. Public Debt

Sensitivity of public debt levels and debt servicing costs to variations in assumptions regarding e.g., exchange rates and interest rates. Impact of debt management strategy on the government's risk exposure.

Policy and institutional framework for government borrowing and on-lending: projected statement of inflows, outflows, and balances; disposition of loan repayments and nonperforming loans.

C. Contingent Central Government Expenditure

Contingent Liabilities: expected value and government's gross exposure to contingent liabilities—especially central government guarantees (e.g., to public enterprises); reporting to include broad groups of guarantees but also any major individual guarantees. Rationale and criteria for the provision of guarantees.

Banking sector: Deposit insurance scheme and—to the extent that the authorities feel this does not generate moral hazard—risks from the banking sector. Information on costs of past bailouts/recapitalizations/preemptive financial support.

Legal action against the central government: Past claims (including amounts) and the face value of current claims, including a disclaimer that reporting the risk does not indicate government acknowledgement of liability.

Natural Disasters: fiscal impact of disasters in recent years. Level and operation of possible contingency reserve for natural disasters (if applicable).

D. Public Private Partnerships

Summary of the PPP program; infrastructure needs; public investment program; policy framework and rationale for PPPs.

Cumulative overall exposure from government's current announced PPP program.

Features of some signed PPPs, and gross exposure from guarantees and similar instruments.

E. State-Owned Enterprises

Policy framework for SOEs (pricing policy, dividend policy).

Financial performance and position of the SOE sector and the largest SOEs.

Financial performance and position of state-owned banks.

F. Subnational Governments

Legal framework for intergovernmental fiscal relations, and summary of recent aggregate subnational government financial performance and financial position.

The statement of fiscal risks itself should be considered work in progress, where risk coverage would be extended and quantitative estimates improved each year. For example, on macroeconomic risks, a first issue of the statement could include a sensitivity analysis to individual parameter changes, but in subsequent years a full-fledged analysis of alternative macroeconomic scenarios (where various shocks interact) would seem helpful. Similarly, with regard to contingent expenditures, coverage could initially focus on the largest contingencies, but could gradually be extended to all government guarantees and guarantee-like instruments. Moreover, quantification could be gradually improved, where feasible, by moving from gross exposure to the expected present value of expenditures.

Appendix Table 1. Statements of Fiscal Risks (FR) and Contingent Liabilities (CL), Selected Countries

	Australia	Brazil	Chile	Colombia	Indonesia	New Zealand	Pakistan
Legal framework FR reporting	The Charter of Budget Honesty Act 1998 requires fiscal risks be disclosed in a Statement of Risks in each budget and Mid-Year Economic and Fiscal Outlook.	The Fiscal Responsibility Law (FRL) established that the annual budget directives law should include an annex with estimates of fiscal risks and contingent liabilities.	The FRL requires the government to report annually on the amount and characteristics of government liabilities that arise from the extension of "fiscal guarantees."		The budget document justifies the need for disclosure of fiscal risks to enhance fiscal transparency and sustainability.	The Public Finance Act 1989 requires disclosure of all government decisions and other circumstances that may put pressure on the forecast spending amounts, and/or have a material effect on the fiscal and economic outlook.	The FRL states that some discussion of fiscal risks should be included in the Medium-Term Budget Framework of the Annual Budget, but this is yet to occur.
Type of Document	Statement of the Annual Budget.	Annex of the Annual Budget Directives Law.	Report on Contingent Liabilities and Chapter of Annual Report on Government Finances.	Chapter of the Medium-Term Fiscal Framework.	Financial Notes to the Budget Document.	Chapters of the Annual Budget Economic and Fiscal Update Document	Annex of the Annual Economic Survey.
Definition of FR	Changes in economic and other parameters; matters not included in the fiscal forecasts because of uncertainty about their timing, magnitude and/or likelihood; and the realization of contingent liabilities.	Risks that revenue and expenditure projected at the time of budget preparation are not confirmed during budget execution, debt service and financing needs might be higher than projected due to the impact of changes in interest rates, exchange rates, and inflation on maturing debt, and contingent liabilities might materialize.				Government decisions and other circumstances that may put pressure on the forecast spending amounts, and/or have a material effect on the fiscal and economic outlook.	
Definition of CL	Possible costs to the government arising from past events that the outcome of future events not within the control of the government will confirm, incl. loan and nonloan guarantees, warranties, indemnities, uncalled capital, and letters of comfort.	Classified according to the nature of their underlying factors, namely: (i) legal claims against the Union and against SOEs that are included in the annual budget; (ii) legal claims relating to government administration; (iii) debt in process of being recognized by the Union; (iv) operations involving endorsements and guarantees granted by the Union; and (v) legal claims against the central bank arising from out-of-court liquidation of financial institutions.		Certain liabilities that the nation may have to honor at some time in the future because of their implicit or contingent nature.		Costs that the Crown will have to face if a particular event occurs. Typically, contingent liabilities consist of guarantees and indemnities, legal disputes and claims, and uncalled capital.	Obligations triggered by a discrete but uncertain event. Explicit contingent liabilities are specific government obligations defined by a contract or a law (the government is legally mandated to settle such an obligation when it becomes due). Implicit contingent liabilities represent a moral obligation or expected burden for the government based on public expectations and political pressures.

	Australia	Brazil	Chile	Colombia	Indonesia	New Zealand	Pakistan
Minimum criteria for FR and CL reporting	Contingent liabilities and other fiscal risks with a possible impact on the forward estimates greater than $20 million in any one year, or $40 million over the forward estimates period, are listed in this statement.					Reasonable certainty (risks not included in fiscal forecasts because they reflect decisions or commitments with uncertain fiscal consequences or timing), materiality (impact on fiscal forecasts of $10 million or more), and active consideration (policies considered by government or decisions that have been deferred).	
Contingent funds		Claims of the Union that depend on judicial decision, such as debt receivables of the National Treasury or National Social Security Institute, and financial assets of the Union (i.e., loan operations originating from rural credit transferred to the Union).	Pension fund: helps pay for minimum pension guarantee. Guarantee fund for small businesses: guarantees a share of bank loans to small businesses. Fuel price stabilization fund for gasoline, diesel, and kerosene.		Contingency Disaster Fund and Guarantee Fund for Infrastructure.		
Economic Risks:							
- alternative scenarios						Fiscal implications of two possible growth paths for the economy when key assumptions underlying the central forecast are altered.	
- sensitivity analysis		Sensitivity of revenue and expenditure to changes in real GDP growth, inflation, exchange rate, nominal interest rate, and minimum wage. Sensitivity of the federal public debt to fluctuations in interest rate, exchange rate, and inflation.			Sensitivity of revenue and expenditure to changes in economic growth, inflation rate, 3-month interest rate, exchange rate, crude oil price, and oil production.	Sensitivity of the operating balance and sovereign-issued debt to changes in nominal GDP growth and interest rates.	
Specific risks:							
- pension schemes			√	√	√		
- banking system					√		√
- regional funds		√					
- debt guarantees	√	√	√	√	√	√	√
- nondebt guarantees	√	√	√	√	√	√	√
- legal disputes	√	√		√	√	√	
- uncalled capital	√				√	√	
- central bank quasi-			√				
- natural disasters					√	√	

Sources: Statement of Fiscal Risks, 2006/07 Budget (Australia); Fiscal Risks Annex of the 2007 Budget Directives Law (Brazil); Contingent Liabilities Chapter of the 2007 Report on Government Finances and Report on Contingent Liabilities, November 2007 (Chile); Implicit and Contingent Debts Chapter of the 2006 Medium-Term Fiscal Framework (Colombia); Financial Notes to the 2008 Budget Document (Indonesia); Fiscal Scenarios and Sensitivities, and Specific Fiscal Risks Chapters of the 2006 Budget Economic and Fiscal Update Document (New Zealand); and Statement of Contingent Liabilities Annex of the 2005/06 Economic Survey (Pakistan).

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