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Fiscal Adjustment and Contingent Government Liabilities

Case Studies of the Czech Republic and Macedonia

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Governments' contingent liabilities increase fiscal vulnerability, but are omitted in traditional measures of the current deficit. In the Czech Republic this omission may mean that fiscal adjustment has been overstated by 3 to 4 percent of annual GDP, with future budgets having to pay for past guarantees. The stock of existing contingent liabilities in Macedonia could add 2 to 4 percent of GDP to that country's future deficits.

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Summary findings

To control the expansion of government contingent liabilities and reduce fiscal vulnerability, one must be able to identify and measure them. Brixi, Ghanem, and Islam discuss how this may be done and demonstrate how the assessment of fiscal adjustment may change substantially when a broader picture of government liabilities is included.

They base their analysis on experience in analyzing fiscal adjustment in the Czech Republic and Macedonia.

Their work demonstrates the importance of including contingent liabilities when assessing the magnitude of the true fiscal adjustment and when analyzing fiscal sustainability.

To the extent that explicit expenditures are shifted off-budget or replaced by guarantees, the achieved improvement in fiscal balances is overstated.

For the Czech Republic, adjustment may have been overstated by some 3 to 4 percent of annual GDP. A stabilization program accompanied by a build-up of contingent liabilities, particularly state guarantees and

obligations to cover liabilities emerging from directed credit, may not be sustainable.

In Macedonia, the present fiscal equilibrium may be temporary because the stock of existing contingent liabilities could add 2 to 4 percent of GDP to future deficits. And methods used to reduce the “traditional” deficit are unlikely to be sustainable without further modification.

Brixi, Ghanem, and Islam conclude that governments:

- Must find better ways to identify and evaluate contingent liabilities arising from the banking system, nonbanking financial institutions, public enterprises, or the contingent and direct liabilities of subnational governments.
- Need to better manage their risks — for example, building adequate reserve funds and hedging risk, where possible.
- Should examine the implications of the bias toward adding contingent liabilities and develop administrative reform as part of analyzing budget management.

This paper — a joint product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region, and the Office of the Senior Vice President and Chief Economist, Development Economics — is part of a larger effort in the Bank to support the quality of fiscal adjustment in its client countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Alison Panton, room H4-296, telephone 202-458-5433, fax 202-522-2751, Internet address apanton@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://www.worldbank.org/html/dec/Publications/Workpapers/home.html>. The authors may be contacted at hpolackova@worldbank.org, hghanem@worldbank.org, or rislam@worldbank.org. September 1999. (41 pages)

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**Fiscal Adjustment and Contingent Government Liabilities:
Case Studies of the Czech Republic and Macedonia**

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1. Introduction

Faced with external and domestic pressures governments all around the world have been lowering their fiscal deficits. At the same time, economists are increasingly coming to realize that focusing exclusively on traditional measurements of the fiscal deficit to assess the extent of fiscal adjustment that has been attained can be misleading for two reasons. First, as Selowsky (1998) points out, quantitative improvements in fiscal policy have not always been accompanied by progress in the “quality” of adjustment. Traditional deficit measures (government deficits on a cash basis) do not shed sufficient light on two key dimensions of “quality”: sustainability and efficiency¹. Second, governments can reduce their measured deficit without carrying out any “true” adjustment. Easterly (1998) argues that fiscal adjustment can be just an “illusion” when it lowers the budget deficit but leaves government net worth unchanged.² When an outside agent forces a reduction in a government’s conventional deficit, it often responds by lowering asset accumulation or by increasing hidden or off-budget liabilities giving the “illusion” of a fiscal adjustment. Fiscal adjustment of this nature may not be either sustainable or efficient. This paper focuses mostly on the issue of sustainability.

Building-up explicit or implicit government contingent liabilities is an important way of reducing the measured (traditional) fiscal deficit while avoiding difficult adjustment. There are many examples of this type of government behavior. In Italy the railways have raised funds through the financial markets to cover their deficits for many years with government agreement and an explicit guarantee from the treasury. Yet, those operations had no impact on the measured fiscal deficit or on the measured stock of government liabilities.³ Similarly, faced with

¹ Efficiency is a broad concept that includes issues such as (a) where should the government spend resources (b) what should be the nature of its intervention and (c) how should it obtain fiscal revenues in the least distortionary manner.

² For other examples and explanations why change in net worth is the right conceptual measure of the deficit see Buiters (1983 and 1985) or Blejer and Cheasty (1993).

³ See Glatzel (1998).

the Gramm-Rudman constraint on fiscal deficits, the US Congress has reduced direct lending by \$50 billion and increased loan guarantees by \$178 billion, replacing budgetary outlays by explicit contingent liabilities.⁴ Implicit liabilities often arise from the financial sector. The savings and loan crisis in the US which eventually cost the government about US \$200 billion is a notable example.⁵ In many other countries governments have used financial institutions to “hide” their fiscal deficits often by asking them to extend subsidized loans to public entities.⁶

Several factors are working to increase government contingent liabilities and fiscal risk in countries around the world: rapidly increasing volumes of private capital flows leading to fast growth of financial systems and volatility in these flows;⁷ transformation of the state from financing of services to guaranteeing particular outcomes; and related to both of these, moral hazards in the markets; and fiscal opportunism of policymakers. Transition and emerging-market economies face particularly large fiscal risks. Their dependence on private foreign financing, weak regulatory and legal enforcement systems, often distorted incentive structures, opaque ownership structures, and low information disclosure, elevate failures in the financial and corporate sectors. Such failures, in turn, often generate political pressures on governments to intervene through bailouts.

A first step towards controlling the expansion of government contingent liabilities and reducing fiscal risk is being able to identify and measure them. In this paper we discuss how this may be done and demonstrate how assessment of fiscal adjustment may change substantially when a broader picture of government liabilities is included. The paper is based on our experience in analyzing fiscal adjustment in the Czech Republic and Macedonia. The Czech

⁴ See Rubin (1997)

⁵ See Kotlikoff (1993)

⁶ Easterly (1998) presents several examples of this.

⁷ The relationship between financial flows and fiscal deficits work in two ways: large capital outflows can increase implicit contingent liabilities, large capital inflows in poorly regulated financial sectors set the stage for the

case provides an example of the deliberate use of guarantees and other support provided through off-budget institutions, which have reduced the (traditional) measured fiscal deficit and public debt. The Macedonia example demonstrates how ignoring implicit liabilities arising from financial sector and enterprise restructuring could lead to a serious underestimation of the extent of fiscal adjustment needed to ensure sustainability. Both case studies provide examples of how to deal with some difficult conceptual and measurement issues when trying to estimate government contingent liabilities.

The paper is divided into five sections. After this introduction, section 2 presents a simple framework for identifying and classifying contingent liabilities. Sections 3 and 4 describe our work in the Czech Republic and Macedonia. Our main conclusions and suggestions for future work are summarized in section 5.

2. A Simple Framework for Identifying Government Liabilities

As in Polackova (1998) we divide government liabilities into four types: direct explicit, direct implicit, contingent explicit, and contingent implicit (table 1). Government direct explicit liabilities are specific obligations that will fall due with certainty and are defined by law or contract. They are the subject of traditional fiscal analysis and include repayment of sovereign debt, expenditures based on budget law in the current fiscal year, and expenditures in the long term for legally mandated items, such as civil service salaries and pensions. Government direct implicit liabilities represent a moral obligation or political, rather than legal, burden on the government that will occur with certainty. They often arise as a presumed consequence of public expenditure policies in the longer term. For example, in a public pay-as-you-go pension scheme, in a country where the government is not legally obliged to pay future public pensions, future

accumulation of implicit contingent liabilities and even without outflows increase fiscal risk. Moreover, outflows

pensions constitute a direct (expected with certainty) implicit (political but not legal) liability. Explicit contingent liabilities represent government's legal obligations to make a payment only if a particular event occurs. State guarantees and financing through state-guaranteed institutions are examples of this type of liability. Implicit contingent liabilities are those that are not officially recognized until a failure occurs. The triggering event, the value at risk, and the required size of the government outlay are uncertain. In most countries, the financial system represents the most serious source of implicit contingent liabilities for government. International experience indicates that markets expect the government to support the financial system far beyond its legal obligation in order to prevent, or in the aftermath of, a systemic crisis.

Table 1 The Fiscal Risk Matrix: Examples

<i>Liabilities</i>	<i>Direct</i> (obligation in any event)	<i>Contingent</i> (obligation if a particular event occurs)
<i>Explicit</i> Government liability as recognized by a law or contract	<ul style="list-style-type: none"> • Foreign and domestic sovereign borrowing (loans contracted and securities issued by central government) • Budgetary expenditures • Budgetary expenditures legally binding in the long-term (civil servants' salaries and pensions) 	<ul style="list-style-type: none"> • State guarantees for non-sovereign borrowing and obligations issued to subnational governments and public and private sector entities (development banks) • Umbrella state guarantees for various types of loans (mortgage loans, student loans, agriculture loans, small business loans) • Trade and exchange rate guarantees issued by the state • Guarantees on borrowing by a foreign sovereign state • State guarantees on private investments • State insurance schemes (deposit insurance, income from private pension funds, crop insurance, flood insurance, war-risk insurance)
<i>Implicit</i> A "moral" obligation of government which reflects public and interest-group pressures	<ul style="list-style-type: none"> • Future public pensions (as opposed to civil service pensions) if not required by law • social security schemes if not by law • future health care financing if not by law • future recurrent cost of public investments 	<ul style="list-style-type: none"> • default of subnational government, and public or private entity on non-guaranteed debt and other obligations • liability clean-up in entities under privatization • banking failure (support beyond state insurance) • investment failure of a non-guaranteed pension fund, employment fund, or social security fund (social protection of small investors) • default of central bank on its obligations (foreign exchange contracts, currency defense, balance of payment stability) • bail-outs following a reversal in private capital flows • environmental recovery, disaster relief, military financing, ...

The liabilities listed above refer to the fiscal authorities, not the central bank.

In order that governments may better manage their resources, volatility in the government's financing requirement and changes in overall government risk exposure resulting

may be prompted by the accumulation of contingent liabilities.

from off budget activities should be considered in the design of government programs. The value of predictability is particularly high for governments that have: (a) restricted access to borrowing, (b) low capacities to manage risk, and (c) low risk preference. Risk adverse governments would prefer to know their financing requirements with certainty. But when facing constraints on the cash deficit, such as deficit “targets,” or when having short planning horizons, policy makers may prefer to provide off budget support to conceal the impact on expenditures and taxpayers (as is the case with the provision of guarantees in many emerging markets).⁸ The formation of reserve funds, of maximum limits on government liabilities under different scenarios for contingent liabilities, or of a hedging strategy, may reduce the potential harm when contingent liabilities fall due. But these measures raise other problems related to overall management of reserve resources, calculations of the required amounts of contingent funds needed, and appropriate use of derivatives.

The first step in attaining fiscal stability is for policymakers to identify, classify, and understand the full range of fiscal risks. Understanding their consequences will at least encourage policymakers to avoid risks that are bound to surface in a politically meaningful time horizon. For risks that extend beyond that timeframe, fiscally sound behavior may depend on coercion. Policymakers are more likely to gravitate to fiscally sound decisions if the media, the public, investors, credit-rating agencies, and multilateral institutions understand the government’s fiscal performance in its entirety and if there are credible sanctions when the government exposes the state to excessive risks and attempts to conceal those risks.

The two case studies presented in the following sections attempt to use this simple framework to identify and evaluate key fiscal risks in the Czech Republic and Macedonia. The

⁸ The provision of an explicit government guarantee is generally only a first best instrument of support when sharing risk with another economic agent is the objective. Defining guarantees narrowly and placing limits on the

Czech analysis highlights that off budget fiscal interventions, mainly in the form of explicit guarantees and directed lending by government has led to a rapid accumulation of government liabilities. True government net worth therefore is lower than a simple evolution of fiscal deficits would indicate. While these debts may be manageable at the present time, if government liabilities continue to grow at the rate at which they have in the past, they will present a threat to future fiscal stability. In the Macedonian case, the threat to fiscal sustainability comes from the recognition of past implicit contingent liabilities and a substantial accumulation of further such liabilities. The key issues here are that slow structural reforms can increase debt from implicit contingent liabilities. The stock of debt (and therefore also changes in net worth) resulting from the recognition of implicit contingent liabilities may vary according to both economic and political decisions made in Macedonia. The effect on the debt increases will depend very much on the manner in which government decides to repay its obligations (on the maturity structure and terms of the debt, which is determined upon recognition of these liabilities).

3. What Is the “True” Fiscal Deficit in the Czech Republic?

The Czech Republic has been known for balanced government budgets. In contrast to most countries, however, fiscal performance in the Czech Republic encompasses a significant amount of government activities financed outside the budgetary system. These activities generate fiscal risks. Recently, these off-budget fiscal risks have become more visible, as state guarantees and agencies that are either explicitly or implicitly guaranteed by the government have generated significant claims on the budget. Given the magnitude of off-budget activities, fiscal analysis in the Czech Republic needs to identify all the main activities of a fiscal nature in order to determine the “true fiscal deficit.” Excluding quasi-fiscal activities of the central bank,

maximum exposure of government for each guarantee as well as the overall set of guarantees provided helps limit

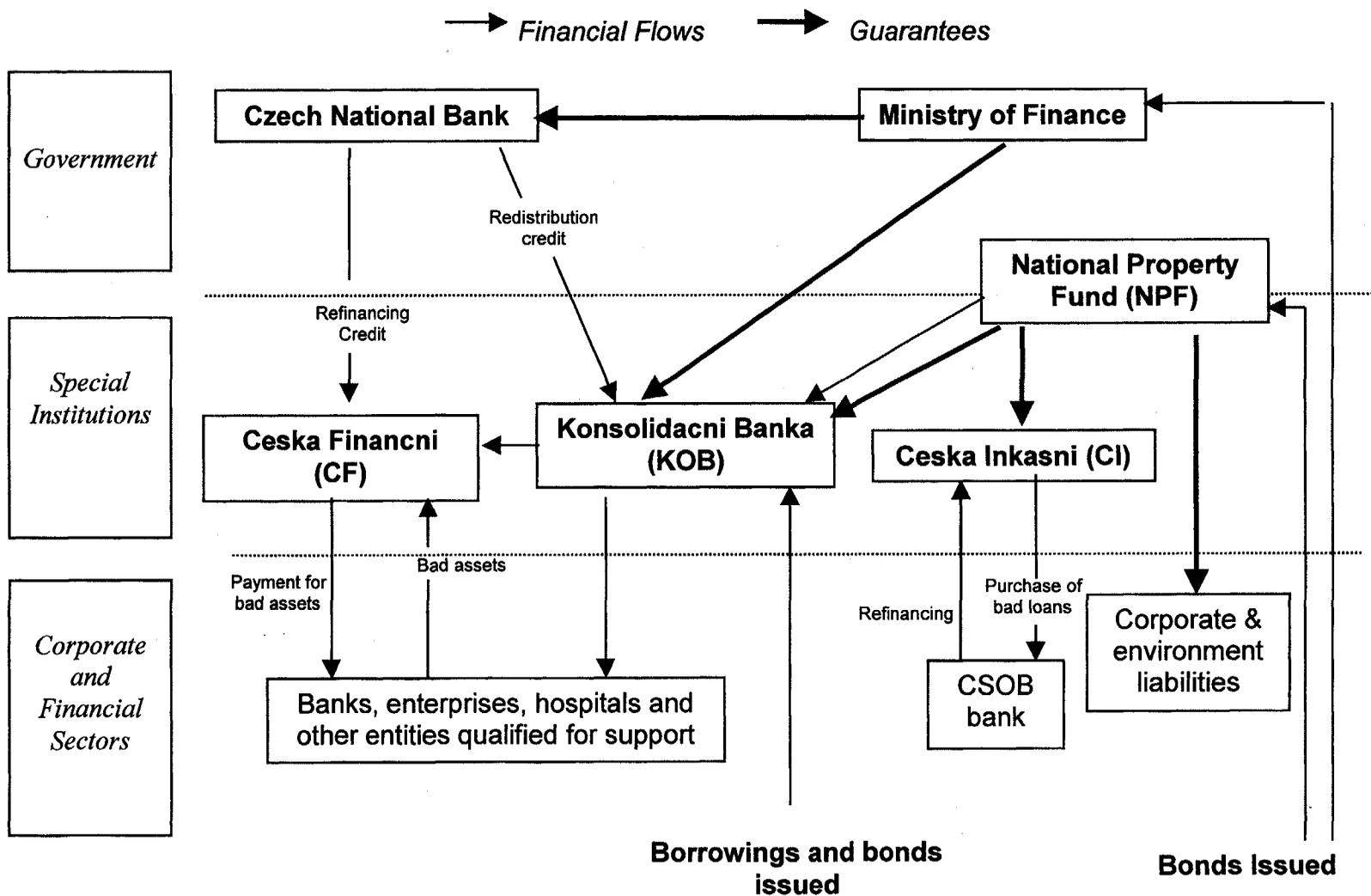
the Czech National Bank, the “hidden” part of the fiscal deficit comprises two main components:

(a) net spending on programs of a fiscal nature by special, off-budget institutions (Konsolidacni Banka, Ceska Inkasni, Ceska Financni⁹ and the National Property Fund) and (b) implied subsidies extended through state guarantees. For financial relationships of the special institutions see chart 1. (For non-standard operations of Czech National Bank see annex 1.)

government debt.

⁹ Ceska Financni has financed two blocks of programs geared toward bank revitalization. One block, in the total amount of approximately CZK35bn, is financed and guaranteed by the Czech National Bank. The other, called the Stabilization Program, in the amount of about CZK12bn is financed through Konsolidacni Bankia, and thus guaranteed by the government. It is only the latter block, which is considered in the “true” deficit calculation. It is included as an activity of Konsolidacni Banka.

Chart 1 Financial Relationships of special, off-budget institutions



For any given year, net public spending by these institutions includes cash outlays on new programs in the form of directed credits and asset purchases¹⁰, and interest expenditures. This spending is adjusted for debt collection, interest revenue, and other revenue from programs. Table 2 shows the components of the “hidden” deficit. In the remainder of this section we describe each row of this table in more detail.

Table 2: Sources of the “Hidden” Deficit in the Czech Republic (CZK bn)

	1993	1994	1995	1996	1997	1998
Konsolidacni Banka (KOB) ¹ net public expenditures	7.7	7.3	4.5	0.9	10.6	28.8
Ceska Inkasni (CI) net public expenditures	20.1	6.6	4.9	4.8	3.1	2.7
Ceska Financni (CF) net public expenditures					0.6 ²	1.8 ²
National Property Fund (NPF) net public expenditures (excl. KOB, CI)	4.2	8.2	4.3	1.9	2.0	2.6
State guarantees Implicit subsidy (risk-adjusted)	0.1	-0.4	1.3	14.9	51.5	26.7
<i>Total (%GDP)</i>	<i>3.2</i>	<i>1.9</i>	<i>1.1</i>	<i>1.5</i>	<i>4.1</i>	<i>3.5</i>

¹ Activities of KOB include a credit to finance Stabilization Program of CF. Therefore, the table includes only interest payments by CF (which are then reported as interest income of KOB).

² These figures are interest payments to KOB on credit taken by CF from KOB to finance Stabilization Program. In addition, CF paid interest CZK0.8 bn and CZK2.8 bn in 1997 and 1998, respectively, to Czech National Bank on its credit from Czech National Bank to finance Consolidation Program.

Source: Ministry of Finance, Konsolidacni Banka, Ceska Financni and National Property Fund.

Until 1993, off-budget programs had mainly dealt with pre-transition problems inherited by the banking sector. These programs had been financed through Konsolidacni Banka. This bank was capitalized by the National Property Fund (the privatization agency whose revenues are derived from asset sales and borrowing on domestic markets), and borrowing from the Czech National Bank.¹¹ In 1995, the Ministry of Finance established Ceska Inkasni, a non-bank financial institution with the mandate of cleaning-up the portfolio of a state-owned bank, the CSOB. Covered by a guarantee issued by the National Property Fund, Ceska Inkasni obtained a credit from the CSOB and used this credit to purchase CSOB’s bad assets at face value.

¹⁰ The assets purchased through off-budget programs are of extremely low quality. Therefore, the analysis considers asset purchases as a spending program rather than a financial transaction.

¹¹ Debt to Czech National Bank still constitutes about one half of Konsolidacni Banka’s total debt.

During 1996-98, a new bank consolidation and stabilization program was launched to deal with newly emerging problems in the banking sector. In order to implement these programs, the Czech National Bank established Ceska Financni, another non-bank financial institution. In 1998, Ceska Financni had in its portfolio non-performing assets purchased at face value from small and medium-sized banks, (in the amount of about CZK50bn, which is 3% of GDP), which it financed through borrowing (one third) from Konsolidacni Banka and (two thirds) from the Czech National Bank.

The Czech National Bank has also financed other bank rescue operations, which have become the source of a further (CZK161bn, over 9% of GDP) addition to its portfolio of substandard assets in 1998. Out of the total amount of sub-standard assets held by the Czech National Bank, the government covers the risk for 12% of the assets. A further, 22% of these assets are in the form of a credit from the Czech National Bank to Konsolidacni Banka and thus are indirectly also covered by government.

Aside from the bank rescue operations, Konsolidacni Banka and, less directly, the National Property Fund have also financed government programs to support troubled insurance companies, public hospitals and the Czech Railways, to build infrastructure, and to clean up industrial enterprises for privatization (see Table 3). The National Property Fund has partly financed these programs from privatization revenues but partly also from its debt issuance. Calculation of contributions to the “true” fiscal deficit by the National Property Fund exclude principle repayments and thus do not reflect the ongoing financing of pre-1993 programs by National Property Fund. In addition, both Konsolidacni Banka and the National Property Fund have accumulated their own contingent liabilities in the form of various guarantees.¹²

¹² Risk assessment of guarantees issued by the National Property Fund and Konsolidacni Banka is not available. Therefore, calculation of the “true” fiscal deficit only includes the implicit subsidy extended through net

Table 3: Programs covered by National Property Fund, 1993-98 (CZK bn)

	1993	1994	1995	1996	1997	1998
Financing environment rehabilitation	0.01	0.1	0.8	1.0	1.4	2.1
Financing the development of railway route				0.1	0.01	0.2
Support to state-owned enterprises (including liability clean up)	2.1	0.5	0.9	0.3	0.2	0.3
Support to agricultural businesses		6.1	1.0			
Bond Interest	2.1	1.5	1.6	0.5	0.4	0.5
National Property Fund's "hidden" fiscal deficit (excluding transfers to KOB, CI and CF and transfers according to state budget law)	4.2	8.2	4.3	1.9	2.0	2.9
Others, already included in hidden deficit calculation:						
Health insurance companies (through KOB) ¹				0.8	0.4	0.4
Support to aviation companies (through KOB) ¹					0.1	0.02
Provisions to Ceska Inkasni (CI) ¹			3.4	10.3	5.5	6.0
Stabilization program of CF (through KOB) ¹					0.6	1.8
Others, included in the reported budget deficit:						
Transfers according to state budget law ¹	9.5	19.4	10.7			

¹ These items are excluded from the "true" deficit calculation. National Property Fund's expenditures related to KOB, CI and CF are accounted for as financing items of these institutions.

Source: National Property Fund's Annual Reports

The impact of guarantees on the hidden deficit is estimated as the net implicit subsidy provided through guarantees in a given year from the portfolio of guarantees issued in that year, or the potential fiscal cost of government obligations, which will emerge from the guarantee in the future. If the amount of this subsidy had been transferred to a guarantee reserve fund the same year the guarantee was issued, it would have served to cover potential future claims emerging from the guarantee. The cost of default would be paid from the guarantee reserve fund and thus would not affect the budget and the deficit.

spending by the special institutions and through guarantees issued directly by the state, but not guarantees issued by special institutions.

Table 4: Guarantees Issued (face values, CZK bn)

	1993	1994	1995	1996	1997	1998
Very high risk (90%)	0	0	0	10.8	51.7	31.0
High risk (30%)	0	0	0	16.2	20.3	0
Medium risk (15%)	5.0	0	13.3	3.0	5.8	7.8
Low risk (5%)	3.7	0	1.8	0	0	87.0
Total	8.7	0	15.1	30.0	77.8	125.8

Assessment of each guarantee and its underlying project had preceded the estimation of their future fiscal costs. Projects were ranked according to their risk. Accordingly, the default risk of each guarantee was estimated. The probability of default was determined by careful consideration of each loan. Table 4 shows the amounts of guarantees issued according to their risk ranking. The implicit subsidy (risk adjusted) imbedded in state guarantees is calculated by multiplying the loan amount for which a guarantee was issued by the default risk. To avoid double accounting, the net implicit subsidy, or the net contribution to the hidden deficit in a given year, is defined as the total implicit subsidy provided in a given year minus guarantee claims paid from the budget and reported in the budget that year. Table 5 provides the risk-adjusted amounts of guarantees issued each year and the claims paid from the budget on guarantee defaults each year. (For calculation of the guarantee component of hidden deficit and hidden government liabilities, and of expected guarantee claims on future budgets see annex 2.)

Table 5: Guarantees Contribution to the Hidden Deficit (CZK bn)

	1993	1994	1995	1996	1997	1998
Very high (90%)	0	0	0	9.7	46.5	27.9
High (30%)	0	0	0	4.9	6.1	0
Medium (15%)	0.7	0	2.0	0.4	0.9	1.2
Low (5%)	0.2	0	0.1	0	0	4.4
Sub Total	0.9	0	2.1	15.0	53.5	33.4
Budget paid out (-)	-0.8	-0.4	-0.8	-0.1	-2.0	-6.7 ¹
Total	0.1	-0.4	1.3	14.9	51.5	26.7
(as % of GDP)	0.0	-0.0	0.1	1.0	3.1	1.5

It turns out that the “true” fiscal deficit in the Czech Republic (table 6), though significantly higher than the deficit calculated through conventional methods, is comparable with deficits of other Central European countries. Therefore the Czech Republic’s fiscal performance, contrary to the widely accepted view, is not noteworthy for its fiscal restraint. Moreover, if left to grow as in the past, the off-budget risk to future fiscal stability can increase significantly. Presently, there is no institutional mechanism in the country mandated to keep a check on government off-budget obligations and the ensuing fiscal risk. And demands on new guarantees and further programs to be financed through various off-budget agencies are growing.

Table 6: Czech Republic “True” Fiscal Deficit, 1993-1998 (% of GDP)

	1993	1994	1995	1996	1997	1998
Reported fiscal deficit	-0.5	-1.3	0.3	0.5	1.1	2.1
“Hidden” fiscal deficit in the special institutions (KOB, CI, CF and NPF)	3.2	1.9	1.0	0.5	1.0	2.0
“Hidden” fiscal deficit in guarantees net hidden subsidy (risk-adjusted)	0	0	0.1	1.0	3.1	1.5
“True” fiscal deficit (including the special institutions and guarantee net hidden subsidy)	2.7	0.6	1.4	2.0	5.2	5.6

The first troubling fact implied by the above discussion is the sharp increase in the amount and risk of guarantees issued by the state. The bulk of the increase has emerged from the government’s support to banks and to the Czech Railways. In 1997 and 1998 the government issued CZK 22bn (1.4% of GDP) guarantee to Czech National Bank on some of its very risky

lending for bank restructuring and CZK 31bn (nearly 2% of GDP) guarantee to a bank (CSOB) on its claim against a Slovak financial institution (Slovenska Inkasni). To support the Czech Railways, the government issued two guarantees, each over CZK 20bn with a very high default risk in 1996 and 1997 on railway modernization. The hidden cost of guarantees has already started to show as a growing claim on the budget emerging from guarantee defaults. Claims on budget increased from about CZK 1bn annually during 1993-96 to CZK 2bn in 1997 and almost CZK 7bn in 1998.¹³

Another, related, troubling fact is the rapidly increasing level of hidden public liabilities. Stocks of these liabilities have been accumulated outside the budgetary system as a result of the hidden deficits (annual flows) mainly in the form of borrowing by the special institutions to finance their government programs.¹⁴ Table 7 shows approximate levels of hidden public liabilities, excluding non-guaranteed quasi-fiscal operations of the Czech National Bank. Comparison of the figures of hidden deficits in table 2 and the resulting hidden liabilities in table 7 will illustrate the extent of cross-financing among the special institutions and, also, the extent of the use of privatization revenues to partly cover the cost of off-budget programs.

¹³ Since the guarantee claims paid from the budget have contributed to the reported deficit, the “hidden” deficit that emerges from guarantees only includes the difference between the hidden subsidy extended by the government through new guarantees and the claims mostly on guarantees issued in previous years. Unadjusted for guarantee claims, the hidden subsidy through guarantees has actually reached CZK55bn and CZK32bn in 1997 and 1998, respectively.

¹⁴ Hidden public liabilities are calculated on gross basis. The analysis focuses on gross liabilities because the quality of directed loans extended and assets purchased through off-budget programs is so extremely low and their potential value is on average estimated around 10 percent (3 percent for CI, less than 10 percent in CF and under 20 percent in KOB).

Table 7. Hidden Public Liabilities (CZK bn)

	1993	1994	1995	1996	1997	1998
Konsolidacni Banka (KOB) ¹ (net of provisions and reserves)	79	81	79	70	86	98
Ceska Inkasni (CI) (net of provisions and reserves)	20	27	25	17	8	7
National Property Fund (FNM)	29	33	40	22	17	15
State guarantees (risk adjusted guarantees outstanding)	3	3	6	28	74	107
Hidden public liabilities (net of provisions and reserves)	131	144	150	137	185	226
Hidden public liabilities (% of GDP) (net of provisions and reserves)	13.1	12.5	11.1	8.9	11.2	12.7
Provisions and reserves of KOB and CI	19	24	42	59	71	84
Gross hidden public liabilities (not adjusted for provisions and reserves)	150	168	192	196	256	310
Reported gross government debt	159	162	154	155	173	194
<i>Reported gross government debt (% of GDP)</i>	<i>15.8</i>	<i>14.1</i>	<i>11.5</i>	<i>10.1</i>	<i>10.5</i>	<i>10.9</i>

¹ Activities of Konsolidacni Banka include financing of the Stabilization Program of Ceska Financni. Therefore, the table does not include Ceska Financni as a separate entity.

Sources: Konsolidacni Banka, Ceska Inkasni and National Property Fund.

Off-budget programs, such as guarantees and support extended through Konsolidacni Banka, National Property Fund, PGRLF and other, possibly new, agencies and guarantee funds, *impose cost on taxpayers with a delay but with no discount*. As it has already started to happen, past hidden deficits and servicing of the hidden government debt outside the budgetary system gradually generates claims on government budget.

One source of budget claims are state guarantees. Assuming no new state guarantees issued, the budget may need to cover about CZK 4 bn annually in the future years, and CZK 33 bn in year 2002 if the debt of Slovenska Inkasni to CSOB is not resolved. Table 8 builds on table 5 and, taking into account individual guaranteed debt repayment schedule, it shows the expected guarantee claims on future budgets. Figures in table 8 are obtained by multiplying the default risk by annual scheduled payments. (See annex 2 for details.) More conservative assumptions for default risk would increase the estimated claims on budget resources.

Table 8. Estimated Guarantee Claims on the Budget (CZK bn)

Guarantees out-standing in 1998	Default risk	Total Claim	1999	2000	2001	2002	2003	1999- 2003	1999- 2030
284.8 ¹	Avg. 38%	107.4	3.3	4.9	5.4	33.3	3.7	50.5	97.8

¹ This amount excludes most recent loan guarantee commitments in the amount of CZK17.6 bn that are expected to be implemented in 1999.

Another source of future claims on the budget is Konsolidacni Banka. Konsolidacni Banka experienced about CZK 14.4bn loss in 1998, which will be covered by state bonds issue. Assuming no new programs, the analysis of Konsolidacni Banka's asset portfolio indicates that its future losses and potential claims on the state budget are likely to stabilize in the neighborhood of about CZK 6bn annually in 1999-2001. However, new government programs that require further borrowing by Konsolidacni Banka without generating adequate revenues will further increase Konsolidacni Banka's debt service and, thus, losses.

Without further privatization revenues, National Property Fund will need to further borrow to meet its commitment vis-à-vis Ceska Financni, Ceska Inkasni, environmental recovery and railway development, and to cover principle repayments for its obligations.¹⁵ To meet its obligations, analysis of the National Property Fund's commitments, excluding those vis-à-vis Konsolidacni Banka, suggests that the Fund will annually need about CZK 15 bn during 1999-2003 and about CZK 33 bn in 2004.

In the medium to long run, off-budget financing of government activities, guarantees and other contingent liabilities, surface as increases in government debt. In the Czech Republic, the expected increase in public debt by the amount of hidden public liabilities estimated around 12.7 percent of 1998 GDP (see table 7) is significant but not disastrous. What appears as disastrous is the dynamic in the rise of the hidden public liabilities. Clearly, the levels of new guarantees issued and new government programs entrusted for financing to Konsolidacni Banka are not

sustainable. Their continued growth at the current pace may in a few years endanger fiscal stability, and thus play against the country's objective of EU accession. The situation will appear more serious if "implicit" government liabilities were included in the deficit and debt calculations.

Moreover, off-budget programs contribute only marginally to achieving main policy objectives of the government and, in some instances, may even undermine these objectives. What have been the results of off-budget programs in the Czech Republic? To support reforms and prevent problems from recurrence? Or just to pay for failures that are likely to occur again? A brief overview suggests that many off-budget programs, such as bail-outs of banks and health insurance companies, have done the latter. Sometimes, programs, which did not qualify for budgetary support (for example an additional subsidy to Railways) did qualify for assistance outside the budget (such as a very risky guarantee extended to Railways). Moreover, often, these programs have implied that government will help again in a case of future failures, and thus have generated moral hazard among market agents, reducing their incentives to improve productivity and competitiveness. This way, the objective of EU accession and integration with European markets, which poses high requirements on competitiveness of banks and enterprises in the Czech economy, may have been undermined.

4. Is Fiscal Stabilization in Macedonia sustainable?

Former Yugoslav Republic (FYR) of Macedonia's macroeconomic stabilization has often been referred to as a remarkable success. In 1992 FYR Macedonia had a general government budget deficit of 9.6% of GDP, and 13.4% of GDP in 1993. The country had little access to foreign finance, had an almost non-existent domestic bond market, and financed its deficit

¹⁵ The initial issuance of National Property Fund's obligations had been used mainly to capitalize Konsolidacni Banka. The following ones than to cover its other commitments.

through money creation. As a result, inflation reached 2000% in 1992. The government adopted a stabilization program in 1994, the primary elements of which were a dramatic reduction in expenditures relative to GDP, the adoption of a fixed exchange rate, some changes in the tax system and strengthened tax collection efforts. By 1997, the budget deficit was -0.4% of GDP and the inflation rate 4%.

This adjustment is impressive. But is it sustainable? There are two parts of the sustainability question: (a) The traditional analysis focuses on whether the current pattern of expenditures and revenues, *not including contingent liabilities* is sustainable and (b) the more complete analysis accounting for off-budget liabilities as well. Quite different answers are possible depending on which track is followed. In FYR Macedonia, the government had built a large stock of direct and contingent liabilities that has increased fiscal risks and threaten future budgetary stability. There are two main sources of contingent liabilities: those emanating from the financial sector, and those from enterprise restructuring/privatization.¹⁶

The Macedonian government is under strong pressure to resolve the problem of the frozen foreign currency deposits that it inherited from the former Yugoslavia. These are household deposits in foreign currency which were deposited in commercial banks in the former Yugoslavia and which the commercial banks were required to redeposit with the National Bank of Yugoslavia. Since 1991, these deposits have been frozen, and since independence the Macedonian government has recognized these deposits as a liability of the state.

These liabilities are no longer implicit but their fiscal effects are contingent on decisions taken by the government regarding the terms and structure of its debt. The Government owes about DM 1.2 billion (21% of GDP) towards some 770,000 foreign currency accounts held by Macedonians. The Government is currently considering several options to deal with this

problem. The most recently discussed solution is to swap these deposits with bonds of 15-year maturity, which would bear an interest rate of 1.5%. At this low interest rate and assuming no exchange risk, the debt service on these bonds would average 2.7% of GDP over the next 10 years.

The banking sector is an important source of implicit contingent liabilities as past experience in Macedonia has shown. Bank recapitalization and restructuring has already cost the budget over 2% of GDP per year since 1995. Yet, incomplete structural reform has meant that the financial system's portfolio of bad debts has grown. It is now estimated that roughly 40% of the system's loans are compromised. Even after all provisions are accounted for, and after accounting for the total capital of the banking system, the total uncovered exposure (for balance sheet items) in the financial sector could be as high as 9% of GDP.¹⁷

Incomplete enterprise restructuring and labor issues (such as overdue wages) are also a potential source of budgetary pressures. Wage arrears are very high, estimated at about 15 billion denars, or 9% of GDP. Typically wage arrears and arrears in social security contributions will be paid by governments when they restructure or privatize government owned (these firms may be taken over by government as part of a restructuring program) or in the case of Macedonia, socially owned enterprises.¹⁸ The government may explicitly pay for the wage arrears or may accept a lower price in the privatization process while asking the future employer to deal with labor issues. The total magnitude of arrears reported here includes arrears of privatized companies. The largest arrears, however (in terms of the number of months overdue)

¹⁶ The pay as you go pension system, if unreformed could, in the long run, add a substantial amount in net liabilities to government.

¹⁷ There are reports that the government is considering taking on some debt owed to domestic banks by foreign borrowers but the amount has not been decided yet. The above estimate refers to the cost of repaying creditors only, not recapitalization to achieve positive net worth.

¹⁸ Socially owned companies are those which are owned by all – there are no clear owners in the sense of shareholders

are in the socially-owned companies. A significant portion of the 15 billion denars may be assumed to be wage arrears in these companies.¹⁹ In some companies, the accumulation of arrears to workers is avoided by accumulating arrears to the government – as in the case of arrears in electricity bills of major companies. (Wage arrears have also been associated with arrears in tax payments—an implicit fiscal expenditure). At the same time, enterprise adjustment will require massive layoffs. Estimates of over-staffing vary between 10 and 25% of the labor force. Severance costs alone are estimated at about 9 billion denars.²⁰ The Government of Macedonia, like other countries which had to go through such an adjustment process, has already funded severance pay for some laid-off workers.

The above discussion shows the links between structural reforms and fiscal adjustment. Problems in the enterprise and financial sectors lead to a buildup of implicit contingent liabilities, at least some of which, will eventually have to be paid. Recognition of government's contingent liabilities in the past has already created moral hazard in the financial and enterprise sectors. In the past, non-performing loans have been removed from the balance sheet of banks and placed with a government agency, the Bank Rehabilitation Agency. However, repayments on these loans are minimal and nonpaying enterprises continue to operate without undergoing bankruptcy. In order to limit the distortion of private sector incentives by creating further moral hazard, the government will need to find ways to limit repayment of its liabilities particularly in the absence of legal and regulatory reform (i.e. without strengthening the incentives for good performance). In cases where the net benefits from recognizing the contingent liabilities are positive, there is a need to ensure that those who benefit from implicit or explicit guarantees are required to bear some of losses.

¹⁹ For some of the calculations it is later assumed that around 1/3 of the total amount represents wage arrears in socially owned companies.

In addition to those three major liabilities, other sources of fiscal risk in The FYR of Macedonia include: (a) the restitution of expropriated land. The Macedonian government will be giving away state-owned assets (or the equivalent value of land, previously expropriated in transfer payments) to citizens. It is not possible to estimate the amount of this debt since even the authorities do not know the value of the land covered; (b) guarantees provided by commercial banks for loans to enterprises (mostly from abroad). If 40% of these liabilities are called,²¹ and become expenses of the commercial banks, fiscal transfers may be involved. 40% of the off balance sheet guarantees amount to 2.6% of GDP. (c) The guarantee of 35 million DM for the privatization of the largest bank, Stopanska ; (d) a one time repayment of arrears to the health sector and in social payments (0.6% and 0.4% of GDP respectively); and (e) foreign exchange risk associated with the frozen foreign currency liabilities or the Stopanska guarantee or other sources; (f) pension liabilities. The Macedonian pay-as-you-go system was not in deficit in 1998, but projections under optimistic growth and employment increases indicated that if unreformed, it can run up substantial net liabilities for government over the long term. Recent events (war in the region) have changed the prognosis for the sustainability of the current system; deficits are expected to appear in 1999. A further cause for worry is that changes in pension benefits are sometimes implemented in an ad hoc manner. Most recently, for example the government announced a 10% increase in nominal pensions.²²

What is the impact of contingent liabilities on fiscal sustainability in Macedonia? First, a “sustainable” fiscal deficit needs to be calculated. The government cash deficit, including the

²⁰ This is estimated by multiplying the prevailing average wage by 9 months (the average length of time for which severance pay may be paid).

²¹ This is the percentage of non-performing loans in the banking sector.

²² In previous years the government had changed the indexation rule for pensions which had resulted in a lower value for pensions. At a later stage, the Macedonian court ruled this as unconstitutional and asked the government to pay its debt (the difference in pensions due to the difference in indexation rules).

central bank, was used as the starting point.²³ The following assumptions were made (1) GDP growth rises from 1.5% in 1997 to 4.5% and 5% in 2005; (2) inflation is kept at around 3% p.a.; (3) stabilization and financial sector reform leads to an increase in money demand so that the monetization ratio rises from 14.5% in 1997 to 24% in 2005; the ratio of public foreign debt to GDP is kept at around 30% and foreign reserves are increased to reach 3 months of imports.²⁴ Table 9 below shows a possible scenario. The sustainable deficit is estimated around 1.5-2% of GDP. This is not a large number but it is larger than the cash deficit of today.

Table 9: Estimating a Sustainable Fiscal Deficit

	1997	1998	1999	2003	2005
Money creation	0.3	0.5	0.4	1.0	0.8
Foreign finance	0.1	0.3	1.6	1.3	1.5
Debt finance	0.3	1.6	3.0	2.7	3.0
Reserves	-0.2	-1.3	-1.4	-1.4	-1.5
Domestic finance	-0.3	-0.4	-0.2	-0.4	-0.4
Gov. borrowing (from the rest of the economy).	-2.3	0.0	0.5	0.5	0.5
National Bank of FYR Macedonia credit	-2.0	0.4	0.7	0.9	0.9
Public sector deficit	0.0	0.4	1.8	1.9	1.9

Source: 1997 data from the Government of Macedonia. Other data are Bank staff projections

In the absence of other adjustments, the realization of some of the fiscal risks described here could easily push the deficit beyond “sustainable” levels. The debt implied by the frozen foreign currency deposits would alone add 2.7% of GDP to the deficit. Suppose the uncovered exposure in the financial sector, amounting to 9% of GDP, and 1/3 of the implicit liabilities in the enterprise sectors, are paid by the government. Assume the authorities issue two bonds. The maturity structure and interest rates assumed are: 15 years, at 8.9%²⁵ and 10 years 7%²⁶

²³ Profits and losses of public enterprises as well as capital transfers are included in the budget. To the extent that public enterprises’ activities (and prices) differ from market values these transfers will be net of the subsidy element embodied in these prices.

²⁴ If inflation were 10%, base money could grow much faster and revenues from the inflation tax would be higher. With a more aggressive external debt strategy, the external debt stock might grow faster, allowing a higher deficit to be financed. On the other hand, the GDP growth assumptions and assumptions regarding money demand are quite optimistic given recent trends.

²⁵ The discount rate of the central bank.

respectively. The payment of these liabilities would increase annual expenditures by 1% of GDP. A one-time payment for the Stopanska guarantee (worth 35 million DM) would add another 1% of GDP. Exchange rate shifts would add to the payments the government would have to make. A 10% devaluation would add another 0.3% of GDP. If the interest rate on the bonds used to repay the frozen household deposits were to rise to 8.9% (the discount rate), the repayments could be 1% of GDP higher per year in the first 6 years. A 10% devaluation at this rate would add over 1% of GDP to annual payments over a similar time frame. In other words, the fiscal deficit is in danger of being pushed to unsustainable levels due to the accumulation of contingent liabilities even if the traditional deficit analysis indicates otherwise.

It is important to note however, that even without the accumulation of contingent liabilities, The Former Yugoslav Republic of Macedonia's fiscal stance may not be sustainable. The "traditional" analysis of sustainability would highlight issues such as falling tax revenues (falling from 39% of GDP in 1994 to 31.2% of GDP in 1998), low civil service wages and high civil service employment. Add to this a very low level of investment to GDP (1.6%) which country experience suggests, is hardly enough to maintain the value of current investments. Put differently, de-accumulation of liabilities has been one of the major elements of the adjustment strategy, which along with the accumulation of liabilities has affected net worth of government negatively.

When governments recognize their previously implicit contingent liabilities, payment on these debts need not have large effects on the fiscal deficit (though it may on future financing requirements). For example, non-interest bearing bonds, or bonds with very low interest rates could be used to replace implicit debt. Dealing with banking sector liabilities for example, can

²⁶ The rate on IBRD loans. A previous IBRD loan included restructuring of enterprises and payment of wage arrears and severance. Even if only the social contributions due on wage arrears are recognized, they would amount to 6.3%

be thought of in two parts: (a) making depositors whole and (b) recapitalization in order to enable the bank to continue functioning. While the former requires real resources from the government, the latter need not. As an example, in order to increase the capital of a bank, the government could take a zero interest loan from the bank and buy equity in the same bank. Depending on the interest rate and the maturity structure that government chooses for its debt and depending also on the total value of contingent liabilities that it recognizes, the fiscal effects may be starkly different. When the government recognizes losses already incurred in the financial and enterprise sectors and determines repayment terms it will really be making a decision about how to distribute the losses within the economy. The greater the fiscal effect, the greater is the cost to general taxpayers as opposed to for example, depositors in and shareholders of banks, workers in enterprises and landowners in FYR of Macedonia. It will need to make decisions such as : if a bank makes poor loans and incurs losses, how much of the cost should be borne by the managers and how much by the depositors/ taxpayers? By recapitalizing banks with bonds, it is merely recognizing losses that have already been incurred. The higher the interest rate on the bonds the larger the transfer of resources from taxpayers to shareholders/depositors.²⁷ Moreover, the government has to weigh the moral hazard issue related to bank recapitalization with the threat of systemic risk and potentially negative effects on output in the absence of recapitalization. These are not easy decisions to make.

Unlike the case for explicit contingent liabilities, implementing fiscal planning which would account for the potential fiscal risks associated with implicit contingent liabilities is generally much more difficult.²⁸ First, implicit contingent liabilities may grow because of large

of GDP. Severance payment is estimated for 15% of the employed (on average this seems to be a reasonable number for the redundancy in enterprises).

²⁷ If bonds are continuously rolled over then the government effectively never repays the principal. In cases where this is not so, the government will have to find alternative sources of financing to repay the bonds.

²⁸ For example, a guarantee contract can be written precisely and narrowly defined. For implicit contingent liabilities, the amount depends to a large extent on the political considerations at that particular time.

macro shocks (whose magnitude and impact on the overall economy may be hard to determine). For small shocks (such as small exchange rate changes), it is generally possible to estimate, for example, effects on specific agents, such as banks. But the government liability depends on the uncovered exposure of banks, and the creditors it wants to reimburse. Even if supervisors know the status of bank assets and capital precisely²⁹ at a point in time, these values change continuously, and supervisors may not share information with the fiscal authorities. Another complication arises from the fact that if governments explicitly account for the potential realization of implicit contingent liabilities, they may generate or significantly increase moral hazard (unless agents also believe *ex ante* that those responsible for poor credit decisions (managers/shareholders) will be forced to bear sufficiently large losses.

Fiscal authorities should recognize that (a) small open economies and emerging markets are especially prone to shocks (being relatively undiversified) and (b) banks and firms in small emerging economies will be exposed to more risk due to this susceptibility to shocks in the real economy as well as financial shocks. Therefore fiscal prudence and good debt management are very important.³⁰ It is more so since fiscal, monetary exchange rate outcomes are closely linked.

As contingent liabilities are accumulated the net worth of government falls (all else being equal).³¹ This tendency will be exacerbated if cash payments for interest liabilities crowds out investment or asset accumulation, which has been the case in FYR of Macedonia. Therefore the true fiscal adjustment in the Macedonian economy has been smaller than a consideration of the cash deficits may indicate. It is also true that payment for implicit contingent liabilities in FYR

²⁹ This is highly likely in most emerging economies, given information scarcities, lack of reliable accounting etc.

³⁰ Burnside et al (1999) have shown that the large prospective deficits implied by the poor health of the banking sectors in East Asian countries, such as Korea and Thailand were an important trigger of “cause” of the loss of investor confidence.

³¹ In this discussion we are implicitly assuming that the cost of the debt taken on by the government is greater than the gain which might accrue (such as faster growth and restructuring) from the redistribution of claims. Such gains are possible in the case where the government is redistributing claims in the aftermath of a systemic crisis or when fundamental policy changes (and incentive changes) accompany the redistribution of claims.

of Macedonia has exacerbated moral hazard and can lead to a further accumulation of implicit contingent liabilities in the future, in the absence of strong reforms. It is relatively easy to change balance sheets of banks and firms for example, without strengthening incentives for improved performance which would prevent the further accumulation of losses.

5. Concluding Remarks

Our work in the Czech Republic and in Macedonia demonstrates the importance of including contingent liabilities when assessing the magnitude of the true fiscal adjustment, and when analyzing fiscal sustainability. To the extent that explicit expenditures are shifted off-budget or replaced by the issuance of guarantees the achieved improvement in fiscal balances is overstated. For the Czech Republic we find that adjustment may have been over-stated by some 3-4 of GDP annually. The accumulation of contingent liabilities today is a threat to future fiscal stability. Hence, a stabilization program that is accompanied by a build-up of contingent liabilities may not be sustainable. In the case of Macedonia we found that the present fiscal equilibrium may be temporary, because the stock of existing contingent liabilities could add 2-4% of GDP to future deficits. Moreover, the methods used to reduce the “traditional” deficit are unlikely to be sustainable without further modification. Our work also shows that fiscal adjustment and structural reforms are closely linked. The most obvious example is that failure to improve banking sector performance can over time lead to an accumulation of implicit contingent liabilities for governments.

There are three areas where further work is clearly needed. First, there is a need for governments to develop better techniques for identifying and evaluating contingent liabilities arising from the banking system (Honohan, 1999 develops general guidelines), non-banking financial institutions, state guarantees, public enterprises or contingent and direct liabilities of

sub-national governments. Second, governments need to apply techniques to manage their risks, for instance build adequate reserve funds and hedge risk when plausible. Third, the implications of the analysis for budget management and for administrative reform need to be developed.

Today politicians in many countries have an incentive to create more contingent liabilities: they allow them to cater to requests from different constituencies while maintaining deficit targets, and they are not subjected to the same level of scrutiny by Cabinet and Parliament as direct spending. Future work could help develop alternative systems that would remove this bias for more contingent liabilities.

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Non-standard Operations of the Czech National Bank

Since 1993, Czech National Bank has undertaken a large amount of non-standard operations, most of which have been aimed at consolidating and stabilizing the banking sector. Table 1 provides a summary of the assets, held by the central bank as a result of non-standard operations by the end of 1998. The table also indicates the quality of these assets and their coverage by state guarantees and provisions.

Table 1. Non-Standard Operations of the Czech National Bank (CZK bn)

Asset	Amount as of 31.12. 1998	Default Risk	Covered by a state Guarantee	Provisioned
Assets purchased from banks	0.65+	100%	0.27+	0.4
Receivables from Banks	13.01	100%	10.1	2.9
Receivable from the National Bank of Slovakia	26.1+	63%	0	16.4
Redistribution credit to Konsolidacni Banka	32.5	*	0	0.35+
Receivables from Special Clients	0.4	63%	0	0.3
Credit commitments and guarantees	51.4	34%	7.6	9.6
Ceska Financni (Consolidation Program and AGB, excluding Stabilization Program covered by KOB)	37.1	76%	0	28.0
Total	161.1		18.0	57.9

* KOB obligations are guaranteed by the state.

Source: Czech National Bank.

**Government Guarantees: Contribution to Hidden Deficit and Hidden Public Liabilities
And Future Claims on the Budget**

Contribution to hidden deficit.

Contribution to hidden deficit is estimated as *net hidden subsidy provided through guarantees in a given year* from the portfolio of guarantees issued in that year. Hidden subsidy of a guarantee represents the fiscal cost of government obligations, which will emerge from the guarantee in the future. If the amount of hidden subsidy had been transferred to a guarantee reserve fund the same year the guarantee was issued, it would serve to cover potential future claims emerging from the guarantee. In the future, the cost of guarantee default would be paid from the guarantee reserve fund and thus not affect the budget and the deficit.

For the calculation, each guarantee and its underlying project are assessed. Projects are ranked according to their risk. Accordingly, the default risk of each guarantee is estimated. Risk-adjusted amount (hidden subsidy) of state guarantees is calculated by multiplying the loan amount for which a guarantee was issued and its default risk. To avoid double accounting, *net hidden subsidy*, or the contribution to hidden deficit, in a given year, is set to equal the total hidden subsidy provided in a given year minus guarantee claims paid from the budget and reported in budget deficit that year. Tables 1 and 2 show the calculation. Table 1 shows the amount of guarantees issued each year according to their risk ranking. Table 2 provides the risk-adjusted amounts of guarantees issued each year and the claims paid from the budget on guarantee defaults each year.

Table 1. Guarantees Issued (CZK bn)

	1993	1994	1995	1996	1997	1998
Very high (90%)	0	0	0	10.8	51.7	31.0
High (30%)	0	0	0	16.2	20.3	0
Medium (15%)	5.0	0	13.3	3.0	5.8	7.8
Low (5%)	3.7	0	1.8	0	0	87.0
Total	8.7	0	15.1	30.0	77.8	125.8

Table 2. Contribution to Hidden Deficit (CZK bn)

	1993	1994	1995	1996	1997	1998
Very high (90%)	0	0	0	9.7	46.5	27.9
High (30%)	0	0	0	4.9	6.1	0
Medium (15%)	0.7	0	2.0	0.4	0.9	1.2
Low (5%)	0.2	0	0.1	0	0	4.4
Sub Total	0.9	0	2.1	15.0	53.5	33.4
Budget paid out (-)	-0.8	-0.4	-0.8	-0.1	-2.0	-6.7 ^T
Total	0.1	-0.4	1.3	14.9	51.5	26.7
(as % of GDP)	0.0	-0.0	0.1	1.0	3.1	1.5

Contribution to hidden public liabilities.

Calculation of the contribution to hidden public liabilities is similar to the calculation above, but is applied to the portfolio of guarantees outstanding, rather than issued, each year. See tables 3 and 4 for the figures.

Table 3. Government Guaranteed Debt Outstanding (CZK bn)

	1993	1994	1995	1996	1997	1998
Very high (90%)	0	0	0	23.4	66.5	96.4
High (30%)	0	0	0	1.6	19.0	35.0
Medium (15%)	4.7	3.7	13.2	16.0	18.7	24.7
Low (5%)	40.2	46.9	70.1	88.7	113.7	128.8
Total	45.0	50.6	83.3	129.7	217.9	284.8

Table 4. Contribution to Hidden Public Liabilities (CZK bn)

	1993	1994	1995	1996	1997	1998
Very high (90%)	0	0	0	21.1	59.9	86.8
High (30%)	0	0	0	0.5	5.7	10.5
Medium (15%)	0.7	0.6	2.0	2.4	2.8	3.7
Low (5%)	2.0	2.3	3.5	4.4	5.7	6.4
Total	2.7	2.9	5.5	28.4	74.1	107.4
(as % of GDP)	0.3	0.3	0.4	1.9	4.5	6.0

Future claims on the budget.

Future claims on the budget are estimated from the portfolio of guarantees outstanding in 1998. The assumption is that no new guarantees will be issued (hidden deficit emerging from guarantees will thus be zero). Again, each guarantee and its underlying project are assessed. Projects are ranked according to their risk. Accordingly, the default risk of each guarantee is estimated. Then, from payment schedule of the underlying loan under a guarantee, each year's installment is multiplied by the default risk and considered to be the potential claim on state budget.

Potential demands on state budget. In the next several years the government can expect a rapid increase in guaranty claim payments due to the default of borrowers that exhibited questionable repayment capacity even at the time the guaranty was extended. Moreover, if the current incentive structure remains unaltered, the government's potential liabilities could increase dramatically.

A review of current state guarantees and the likely demands for government resources to cover claim payments is shown in table 5.³² The current outstanding loans are grouped by very

³² For variable rate loans, only 1999 figures reflect scheduled payments of principal and interest. Scheduled payments in the remaining years are only for principal. For fixed rate loans, scheduled principal and interest are included for all years.

high, high, medium, and low risk projects.³³ These groups are provided to show the varying levels of risk within the portfolio, rather than to provide a specific assessment of individual projects. A more comprehensive review would be necessary to provide a true assessment of the current condition of the guaranty portfolio.

Table 5. Scheduled Payments for state Guaranteed Loans (CZK bn)

Project Risk Ranking	'98 Balance	Scheduled Payments					
		1999	2000	2001	2002	2003	1999-2003
Very high	96.404	1.491	2.286	2.610	34.349	3.239	43.975
High	34.953	4.795	7.792	8.604	6.594	1.336	29.121
Medium	24.657	2.333	2.525	2.286	1.943	1.898	10.985
Low	128.771	3.747	2.041	1.959	1.987	1.823	11.557
Total	284.785	12.366	14.644	15.459	44.873	8.296	95.638

Table 6 provides an assessment of the potential claims on the state budget if the guaranteed loans defaulted at the rates shown in the second column of this table. This table shows the illustrative claims consistent with the government's incentives to continue to pay scheduled loan payments. The annual potential claims on state budget are calculated by multiplying the default probability in table 6 by the annual scheduled payments in table 5.

³³ These categories have been defined for illustrative purposes as follows. "Very high" risk guarantee includes those that have already missed payments (Railways – CZK 40.6bn and hospitals – CZK 2.3bn) and few other guarantees, such as the guarantee extended to CNB for transition debt assumed from banks (CZK 22.5bn) and the guarantee of CSOB debt (CZK 31.0bn). "High" risk guarantees include those extended to borrowers with low repayment capacity, for example, JE Temelin, new debt issued to Area to cover a prior default, and the center for blood fractioning (Výstavba frakcionaèního centra krevních derivátù). "Low" risk guarantees include those with a borrower who demonstrated repayment capacity. "Medium" risk includes all other loans. These categories were established based on general assessments provided to World Bank mission in November 1998. They do not reflect the actual risk of individual projects. A detailed assessment would be required to provide informed estimates of the credit risk of individual projects.

Table 6. Expected claims on state Budget Resulting from state Guarantees (CZK bn)

Project Risk Ranking	Default Risk	Total Claim	Potential Claims on state Budget					
			1999	2000	2001	2002	2003	1999-2003
Very high	90%	86.764	1.342	2.057	2.349	30.914	2.915	39.578
High	30%	10.486	1.439	2.338	2.581	1.978	401	8.736
Medium	15%	3.699	350	379	343	291	285	1.648
Low	5%	6.439	187	102	98	99	91	578
Total		107.387	3.318	4.876	5.371	33.283	3.692	50.539

These estimates show that the government could make payments from CZK3.3 billion to 33.3 billion annually in the near term.³⁴ (The projected payments in 2002 jump due to the scheduled repayment of the CSOB CZK31.0 million loan in that year.) In later years expected claim payments could jump significantly as larger principal payments come due. If the illustrative risk categories and default probabilities were realized, the government would make claim payments of CZK107.4bn over the remaining life of the current portfolio, plus interest and penalties. These rough estimates do not include the potential cost of the CZK17.6bn in loan guaranty commitments expected for disbursement in 1999.

If more conservative assumptions were used, the claims on budget resources could be even larger. For example, if one assumed a 100% default probability for very high risks, 50% for high risks, 25% for medium risks, and 10% for low risks, gross principal defaults over the remaining life of the current portfolio would reach CZK132.9bn. Actual losses would be higher as the result of additional payments for guaranteed interest and penalties.

Tables below provide background information regarding the guarantee portfolio and guarantee risk.

³⁴ These annual budgetary costs do not include the likely payment of up to CZK22.5 bn to the CNB, because payments for this guaranteed loan is not scheduled until 2007. If this guaranty were called earlier, the expected annual budgetary costs would increase by this amount.

Table 7. Government Credit Guarantees Issued 1993-1999 (currency as indicated)

	Year	Amount (in million)
Projekt ENERGY I	1992	394.026 USD
Odsíření elektrárny Počerady	1992	900 CZK
Odsíření elektrárny Prunéřov	1992	59.200 DEM
JE Temelín - automat.systém řízení	1996	514.800 USD
Pořízení letadel Boeing	1993	164.101 USD
Leasing letadel Airbus	1995	122.228 USD
Výstavba terminálu v Praze-Ruzyni	1995	6,980 CZK
Projekt TELEKOMUNIKACE I - *)	1993	105.765 ECU
Projekt TELEKOMUNIKACE II (dodat.půjčka)	1995	50.739 ECU
I. koridor Děčín-Praha-Břeclav - ČD, 1. úvěr	1996	320.100 USD
I. koridor Děčín-Praha-Břeclav - 2. Úvěr EIB	1997	75 ECU
II. koridor Břeclav-Přerov-Petrovice	1997	23,500 CZK
Modernizace kolejových vozidel ČD - 1. úvěr	1996	1,100 CZK
Modernizace kolejových vozidel ČD - 2. úvěr	1997	500 CZK
Zlepšení stavu mezinárodních silnic - 3 tranše	1996	3,000 CZK
Projekt dálnice D5 Praha-Norimberk (1.tranše)	1997	165 ECU
Projekt rozvoje obcí - MUFIS (1.tranše)	1995	59.9 USD
Projekt rozvoje obcí - MUFIS (2.tranše)	1997	27.6 USD
Projekt rozvoje obcí - MUFIS (3.tranše)	1998	26.015 USD
Severočeské papírny Štětí	1988	103 CZK
Výstavba frakcionačního centra krevních derivátů	1996	600 CZK
Seriová výroba letadel L-159 pro ČA (CIBC banka)	1997	669 USD
Projekt na odstranění škod z povodní	1998	200 ECU
VFN Praha a FN Motol	1997	2,565 CZK
Výroba letadel L-159 a rozvoj Aera: revolving.úvěr	1998	300 USD
Aero Vodochody a.s. - emise dluhopisů	1998	200 USD
Kongresové centrum Praha dostavba a rekonstr.	1998	2,000 CZK
Projekt rozvoje obcí - MUFIS, 4. Tranše	1998-9	8 USD
Projekt české dálnice - A (D8,D11,R1,R35)	1998	230 ECU
Státní záruka ve prospěch ČNB (usn.vl. č. 51/1997)	1997	22,500 CZK
Státní záruka pro ČSOB za SI (usn.vl.č. 269/1998)	1998	31,000 CZK

Table 8. Government Guarantees: Summary, 1993-1999 (CZK bn)

	1993	1994	1995	1996	1997	1998	1999*
A. Development gtys (576/90 Sb.)	45.963	75.945	113.862	99.694	143.188	135.513	136.328
1. Outstanding	21.425	30.057	40.063	62.176	103.608	117.913	118.728
Committed (approved by the gvt but not legally bending)	24.538	45.888	73.799	37.518	39.580	17.600	17.600
B. Other guarantees	0	1.412	0	0	22.500	53.500	37.952
C. Solidarity guarantees	26.697	23.025	18.241	10.176	8.177	4.372	4.372
Total guarantees outstanding A+B+C	72.660	100.382	132.103	109.870	173.865	193.385	177.780
Legal limit on scheduled payments	28.160	30.400	32.940	39.792	43.928	42.931	45.929
Scheduled payments	5.429	5.607	10.629	8.893	9.001	11.080	12.366
Capital reserves							
Guaranty claims budgeted for	600	1.000	1.000	300	500	800	1.500
Actual guaranty claims paid	822	419	789	91	1.988	6.700	0
D. Export guarantees (58/95 Sb.)							
EGAP	0	0	24.200	34.400	48.000	70.000	70.000
CEB	0	0	4.252	28.000	39.000	39.000	39.000
Total state guarantees outstanding A+B+C+D	72.660	100.382	160.555	172.270	260.865	302.385	286.780

* 1999 is estimated.

Source: Ministry of Finance.

Table 9. Guarantees and Their Risk Assessment (CZK m)

CZK mln CZK mln

Guarantee záruka	Year of Origin	Risk	1999 Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding	
			1999	1999	1999	2006	2009	2012	
I. Státní záruky poskytnuté za úvěry									
a) Environment projects total			15,798	13,042	11,944	11,386	29,983	24,212	
z toho: Projekt ENERGY I	1992	USD	Low	11,387	10,971	9,937	9,554	11,475	9,380
Odsízení elektrárny Počeradý	1992	CZK	Low	900	900	900	791	682	463
Odsízení elektrárny Prunéřov	1992	DEM	Low	1,130	1,062	1,107	1,041	941	680
JE Temelín - dostavba III. a IV. Bloku			NA	829	109				
JE Temelín - automat.systém řízení	1996	USD	High		0	0	0	16,885	13,689
Konax Jihlava			Default	224					
AZNP Mlada Boleslav			Default	519					
Mesit Uherske Hradiste			Default	19					
Mesit Uherske Hradiste			Default	53					
Zetor			Default	737					
Mitas			Default						
b) Infrastructure projects total			4,742	15,232	26,286	44,842	65,556	64,385	
z toho: Pořízení letadel Boeing	1993	USD	Medium	4,742	3,695	2,409	2,157	3,111	2,138
Leasing letadel Airbus	1995	USD	Medium			3,841	3,436	3,380	1,526
Projekt rozvoje obci	1995		NA		560	1,626	812	0	0
Výstavba terminálu v Praze-Ruzyni	1995	CZK	Medium		0	6,985	6,819	6,502	5,758
Projekt TELEKOMUNIKACE I	1993	ECU	Low		10,977	10,101	3,388	3,600	2,985
Projekt TELEKOMUNIKACE I I (dodat.půjčka)	1995	ECU	Low		0	1,324	1,294	1,700	1,788
I. koridor Dičín-Praha-Břeclav - ĚD, 1. Úvir	1996	USD	Default		0	0	23,396	17,044	17,139
I. koridor Dičín-Praha-Břeclav - 2. úvir EIB	1997	ECU	Default		0	0	0	0	4,413
II. koridor Břeclav-Pačover-Petrovice	1997	CZK	Default		0	0	0	23,500	17,997
Modernizace kolejových vozidel ĚD - 1. Úvir	1996	CZK	Default		0	0	0	1,000	700

Modernizace kolejových vozidel ĚD - 2. Úvir	1997		CZK	Default	0	0	0	0	400	
Zlepšení stavu mezinárodních silnic - 3 tranše	1996		CZK	Medium	0	0	3,540	2,916	792	
Projekt dálnice D5 Praha-Norimberk (1. tranše)	1997		ECU	Medium	0	0	0	0	5,575	
Projekt rozvoje obcí - MUFIS (1. a 2. tranše)	1995		USD	Medium	0	0	0	2,803	2,396	
Projekt rozvoje obcí - MUFIS (3. tranše)	1998		USD	Medium	0	0	0	0	778	
c) Foreign projects total					885	1,783	1,833	5,349	5,576	27,061
z toho: Severočeské papírny Štít	1988	1993	1995	Low	103			103	103	103
PBS Výstavba hlinklarny v Iranu – EGAP - 4x64MW				Default	782	783	79	122		
Výstavba hlinklarny v Iranu – Chepos				Default		1,000	1,000	3,537	3,404	
Výstavba frakcionaěního centra krevních derivátů	1996		CZK	High	0	0	0	600	600	
Seriová výroba letadel L-159 pro ĚA (CIBC banka)	1997		USD	High	0	0	1,587	1,469	20,664	
Projekt na odstranění škod z povodní	1998		ECU	Medium	0	0	0	0	5,694	
Ostatní				NA	0	754				
d) podle § 32: hospitals							0	0	2,494	2,255
z toho: VFN Praha a FN Motol	1997		CZK	Default			0	0	2,494	2,255
Total 1					21,425	30,057	40,063	61,577	103,609	117,913

2. Vládou schválené záruky, u nichž se připravují úvěrové, záruční smlouvy, splátkové kalendáře									
									<i>Odborný odhad</i>
Výroba letadel L-159 a rozvoj Aera: revolving úvěr	1998	USD		High					9,100
Aero Vodochody a.s. - emise dluhopisů	1998	USD		High					6,100
Kongresové centrum Praha dostavba a rekonstr.	1998	CZK		High					2,000
Projekt rozvoje obcí - MUFIS, 4. Tranš	1998-9			Medium					0
Projekt české dálnice - A (D8,D11,R1,R35)	1998	ECU		Medium					400
New projects shown in prior years					24,538	45,888	73,799	38,118	39,580
Total 2					24,538	45,888	73,799	38,118	39,580
Total A (1 + 2)					45,963	75,945	113,862	99,695	143,189
Ostatní úvěry						1,412			
Státní záruka ve prospěch CNB (usn.vl. c. 51/1997)	1997			High				22,500	22,500
Státní záruka pro CSOB za SI (usn.vl.c. 269/1998)	1998			High					31,000
Grand Total A + B + C					72,660	100,382	132,103	109,871	173,866
8 % of state revenues <i>Amount below state limit</i>									
z toho: Záruky za závazky exportní pojišťovny – EGAP				Low	0	0	24,200	34,400	48,000
Záruky za závazky exportní banky - CEB				Low	0	0	4,252	28,000	39,000

Total A+B+C+D

72,660	100,382	160,555	172,271	260,866	302,385
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