

# Dubravko Mihaljek:<sup>1</sup> Fiscal transparency from central banks' perspective: off-budget activities and government asset funds

*This paper reviews how central banks in emerging market countries assess fiscal positions, and discusses two aspects of fiscal transparency that have recently gained importance from central banks' perspective: off-budget activities and special fiscal funds. By increasing uncertainty about the true fiscal position of the government, these activities are of concern both to central banks that set monetary policy on their own, taking fiscal policy as given, and to those that have adopted an institutional framework for coordinating monetary and fiscal policies.*

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## 1. INTRODUCTION

This paper discusses two aspects of fiscal transparency that have recently gained importance from the perspective of central banks in emerging market economies: off-budget activities and special fiscal funds. The former could be referred to as “hidden liabilities”; the latter as “hidden assets” of governments. Because of widespread financing difficulties in the 1980s and the 1990s, trying to make fiscal liabilities less transparent was common not just in the emerging market economies, but also in the advanced industrial countries. In the 2000s, the turnaround in macroeconomic, external and fiscal positions of emerging market countries, and the abundant liquidity in global capital markets (at least through mid-2007), softened government financing constraints and led the authorities in many countries to start “hiding” fiscal surpluses in special vehicles such as sovereign wealth funds. This paper does not analyse the broader economic forces that underlie these developments. It focuses instead on the simple workings of some of the more common off-budget activities and special fiscal funds.

Section 2 reviews different ways of assessing fiscal positions by central banks in emerging market economies, with a focus on off-budget activities. This section is largely based on responses of central banks from emerging market economies to a BIS questionnaire (see Mihaljek and Tissot, 2003). Section 3 discusses the purposes and design of government

asset funds, and outlines some issues they raise for transparency of central bank and fiscal operations.

## 2. HOW CENTRAL BANKS IN EMERGING MARKETS ASSESS FISCAL POSITIONS

Following the public finance literature, central banks in emerging economies rely on a range of budget balances in their analyses of the fiscal position of the government and the public sector.<sup>2</sup> The choice depends on the aspects of fiscal policy that are of greatest interest to central banks. The most common measure of the fiscal position remains the balance of the *cash-based central government budget*. This is the simplest measure of the fiscal balance and the one linked most clearly to monetary financing of the budget deficit (see IMF, 1986 and 2001). Moreover, information on central budget positions is usually available on a monthly basis with relatively short delays. Policymakers in central banks therefore rely extensively on updates concerning the central government budget, making various adjustments to arrive at the measures of fiscal position which are relevant for monetary policy. Another rationale for this measure is that the central government typically dominates local governments in terms of both size and involvement in financial markets.

In countries with a federal structure of government or large sub-national governments, it is necessary to look beyond the

<sup>1</sup> The views expressed are those of the author and do not necessarily represent those of the BIS. Helpful insights and encouragement provided by Gabor P. Kiss are gratefully acknowledged.

<sup>2</sup> The discussion in this section refers to 23 emerging market economies from Asia (China, Hong Kong SAR (hereafter, Hong Kong), India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand); Latin America (Argentina, Brazil, Chile, Colombia, Mexico and Peru); central and eastern Europe (the Czech Republic, Hungary, Poland, Russia and Turkey); and the Middle East and Africa (Israel, Saudi Arabia and South Africa).

central government to the fiscal positions of state and local governments. National fiscal authorities have often been forced to cover the losses and obligations of sub-national governments, in particular in Latin America. The coverage of the *general government* in fiscal accounts has improved in recent years, but data on the activities of local governments are usually only available with long delays. In central European countries, for instance, final outturns of local government budgets are sometimes known only nine months after the end of the fiscal year.

There are often considerable difficulties with consolidation of state and local government data, which may result in double counting. This creates significant uncertainty for monetary policy. A related issue is that, despite availability of fiscal accounts on a general government basis and significant improvements in fiscal transparency, the budgetary process and political attention in most emerging economies remain focused on central government budgets. This is a major concern for central banks in larger countries, where central government frequently accounts for less than two thirds of general government spending. On the other hand, to the extent that local governments are subject to tight borrowing limits, their activities need not affect monetary policy or GDP growth in a significant way.

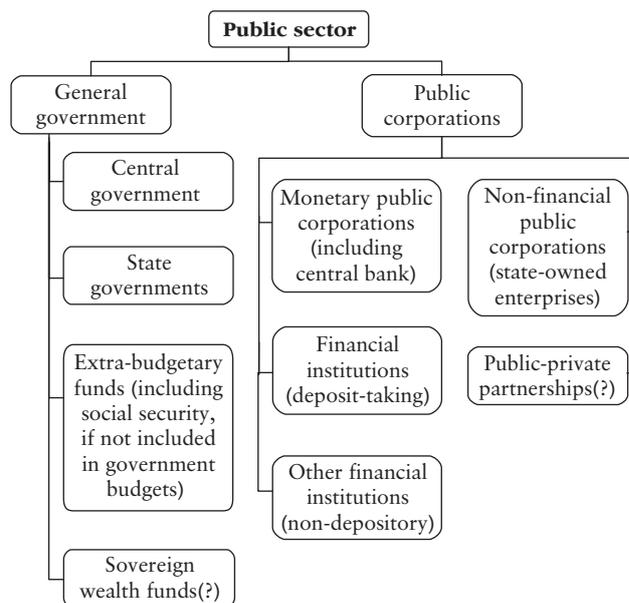
## Off-budget activities

Central banks in emerging economies are increasingly using more comprehensive *public sector accounts* in their analyses (Figure 1). Heightened attention to such indicators has resulted not only from greater availability of fiscal data, but also from the realisation that general government fiscal accounts often exclude extensive quasi-fiscal activities and contingent liabilities of government and public sector institutions (see the Appendix for a taxonomy of fiscal risks).

It should also be noted that covering the activities of public corporations in public sector accounts is not always straightforward. Many public corporations are run like private companies and their shares are publicly traded (e.g. national petroleum companies). Most countries consider only investments of such firms as government capital spending.

The last few years have witnessed the emergence of two new forms of quasi-fiscal activities that have yet to be treated as part of public sector accounts: public-private partnerships and sovereign wealth funds. Arguments for including public-private partnerships in public sector accounts are considered by P. Kiss (2007) in an accompanying paper in this volume. Arguments for including sovereign wealth funds in fiscal

Figure 1



accounts have yet to be elaborated. Nonetheless, as the discussion in Section 3 indicates, there is little doubt that their activities can have major implications for both fiscal and monetary policies.

The scope of fiscal activities that remain outside government budgets is of considerable importance for central banks because it is difficult to conduct short run monetary policy without knowing the fiscal position. However, data on such activities are generally not provided to central banks on a regular basis. As a result, for many central banks the margin of uncertainty about the government's fiscal position often amounts to several percent of GDP. The following examples illustrate that any analysis of a country's fiscal position is far from complete if it overlooks the obligations the government has taken on outside its budgetary system.

- Measured fiscal balances in many Latin American countries during the first half of the 1990s looked better than they really were because they included privatisation receipts "above the line" but did not show liabilities such as pension arrears that were later partly recognised.
- In the Czech Republic, Mexico and Russia sizeable short-term public sector obligations were hidden in the balance sheets of weak financial institutions under government control.
- The crises in Asia (1997-98), Russia (1998) and Turkey (2001) have shown that when the stability of a country's financial system is at risk, markets usually expect the

government to provide financial support that far exceeds its legal obligation.

- Many emerging economies rely on guarantees, extra-budgetary funds and state development banks as a non-transparent substitute for budgetary subsidies and for bypassing budgetary ceilings on government consumption and investment expenditure. One example is Mexico's public works programme *Pidiregas* (Projects with a deferred impact on public expenditure recording), worth an estimated 4% of GDP. It is financed with funds raised internationally under the guarantee of the federal government. Spending under this programme is not registered "above the line" until the project is finished and received by the public sector.
- China is another striking example of the importance of the broader public sector for the assessment of the fiscal position. The official data show that China's state budget deficit has hovered at relatively low levels (2-3% of GDP) over the last 20 years, even though fiscal activity extends well beyond the official state budget. Following the formal separation of state-owned enterprise finances from the budget, the government has used the banking system extensively to support state-owned enterprises, and a significant share of these loans has become non performing. The loan losses of the state-owned banks, although not legally a liability of the government, would have to be covered by additional state resources in the future if deposit liabilities are to be honoured. If the government's quasi-fiscal liabilities from the banking system were included, the broader fiscal deficit would be significantly larger (estimated at about 5-6% of GDP by the IMF), as would be the level of government debt.<sup>3</sup>

Table 1 indicates to what extent some of these non-traditional budgetary items are being accounted for in the fiscal accounts. Off budget expenditure by various government-supported entities remains largely unaccounted

for. Hungary, India, Indonesia, Israel, Mexico, Peru, the Philippines, Poland, Russia and Thailand estimate, but do not include, such expenditure in public sector accounts. Similarly, contingent liabilities are estimated, but not included, in public sector accounts in Brazil, Chile, Colombia, India, Israel, Mexico, Peru, the Philippines, Poland and South Africa.

Table 1 does not reveal considerable variation regarding the types of off budget expenditure and contingent liabilities that are being accounted for. Most countries identify ex post at least some of what had previously been contingent liabilities in their fiscal accounts; examples would be costs associated with banking failures or the need to clean up liabilities of entities being privatised. But ex ante coverage rarely extends to implicit direct liabilities such as future healthcare, pension and social security obligations of the government. With the exception of New Zealand, most industrial countries do not account for such items either.

The last part of Table 1 shows how countries account for proceeds from privatisation, an asset item that has been quite important for the assessment of fiscal positions over the past two decades. Many Asian countries still include proceeds of government asset sales in budget revenue, i.e. "above the line" rather than as a financing item. Most emerging economies, however, distinguish government asset sales as a special item in the budget, or account for it as a financing item (i.e. "below the line"). One should also note that creative accounting of the privatisation proceeds can survive even in an advanced government accounting framework such as ESA, when coverage of the government sector is insufficient.<sup>4</sup> For instance, proceeds from the privatisation of a profitable, cargo branch of the Hungarian railway company (which was separated into passenger and cargo branches) are reportedly being used to subsidise the loss-making, non-privatised company (former passenger branch). In principle, this transaction should be rerouted, by recording privatisation proceeds below-the-line, and the capital transfer above-the-line.

<sup>3</sup> Recognising the stock of non recoverable bank loans, estimated at between 50-75% of GDP at end 2000 (of which an amount equivalent to 15½% of GDP has been transferred to asset management companies), would raise public debt to 75-100% of GDP as of end 2000; see IMF (2002).

<sup>4</sup> I am indebted to Gábor P. Kiss for this insight.

**Table 1****Accounting for special fiscal items**

<b>Off budget expenditure</b>	
Estimated but not included in the accounts	Hungary, India, Indonesia, Israel, Mexico, Peru, <sup>1</sup> Philippines, Poland, Russia, Thailand
Not quantified	Chile, Czech Republic
<b>Contingent liabilities</b>	
Shown as financing or a balance sheet item	Indonesia, Russia
Estimated but not included in the accounts	Brazil, <sup>2</sup> Chile, Colombia, India, Israel, Mexico, Peru, Philippines, Poland, South Africa <sup>3</sup>
Not quantified	Argentina, Czech Republic, Hungary, Thailand
<b>Government asset sales</b>	
Shown as budget revenue or in government income statement	Argentina, Chile, <sup>4</sup> China, Hong Kong, India, <sup>5</sup> Malaysia, Mexico, Thailand, Turkey
Special item in budget revenue or government income statement	Brazil, Chile, Hungary, Philippines, Singapore, <sup>6</sup> South Africa <sup>7</sup>
Shown as financing or item in government balance sheet	Argentina, Colombia, Czech Republic, Indonesia, Israel, Peru, Poland, Russia, South Africa, <sup>8</sup> Turkey

<sup>1</sup> Included in budgetary accounts. <sup>2</sup> Included in the debt calculation and projections. <sup>3</sup> Actual audited data. <sup>4</sup> Only capital gains. <sup>5</sup> Proceeds from disinvestments in public sector undertakings. <sup>6</sup> Included under capital receipts in the budget. <sup>7</sup> Disposal of assets (ordinary). <sup>8</sup> Disposal of assets (privatisation).

Source: Central bank responses to the BIS questionnaire.

An issue of particular concern for central banks in highly indebted economies is how to disclose the information on contingent liabilities to the markets. There is a feeling among many central bankers that disclosure standards for emerging economies have become more stringent than for advanced market economies in recent years. Most central banks agree that appropriate accounting of contingent liabilities (such as local government borrowing, extra-budgetary funds and losses of state-owned enterprises and banks) is necessary in order to provide the right incentives to policymakers and borrowers. However, disclosure of previously unrecorded liabilities may be misinterpreted (Why is the government revealing the “skeletons in the closet” now? Is there more to come?), and sometimes gives speculators an idea of vulnerable points to attack. It has been argued, for instance, that one could not rely on market analysts to interpret the information on quasi-fiscal activities correctly: even with the IMF’s SDDS, there were misinterpretations of the data. Harmonisation of information was therefore not sufficient; one also needed to educate the markets.

Private financial market participants in particular view sudden jumps in the debt-to GDP ratio as a sign of debt sustainability problems. There is thus an incentive to reveal contingent liabilities slowly or not at all. One way to avoid such jumps in expenditure is to include items such as loan guarantees in the budget at the time they are approved rather than when they come due. On the other hand, central banks that have dealt extensively with different contingent liabilities feel that one should not wait for a crisis to recognise such

liabilities – if markets have not paid attention to contingent liabilities before a crisis, they will certainly do so afterwards.

In summary, although central banks and fiscal authorities in emerging economies are for the most part aware of the need to look beyond the narrow central government budget, their assessments of the fiscal positions of the general government and the public sector are still far from comprehensive. An additional problem is that the budget-making process typically retains a one year focus in most countries – in particular, line ministries’ concerns rarely extend beyond the current fiscal year. Multi-year fiscal frameworks have been developed mostly in the context of IMF supported programmes (Indonesia, Korea, Turkey) or EU accession (central Europe), or have been in place as part of narrower budgeting (Hong Kong, Singapore) or planning exercises (India), rather than as part of a comprehensive macroeconomic framework.

### 3. SPECIAL GOVERNMENT ASSET FUNDS

Over the past few years many emerging market countries have established special government asset funds that are gradually becoming major institutional investors in global capital markets. One group of countries that established such funds are resource-rich economies, which are currently benefiting from high prices for oil, metal and other commodities, but over longer periods face considerable volatility in revenues from exports of these resources. Another group of countries are emerging market economies

that have decided to accumulate substantial foreign exchange reserves following financial crises of the 1990s and are now apparently willing to take more risk in their reserve management policies. Estimates of the size of these funds vary widely, from around \$0.9 trillion (Rozaanov, 2005) to around \$2.5 trillion (Morgan Stanley, 2007) in the mid-2000s.

Special government asset funds can be divided according to several criteria, including goals or motives for their establishment; sources of funding; and (current) uses of resources (Table 2). The demarcation lines within and between these categories are in practice often blurred. For instance, many oil funds were originally established with the goal of stabilising disturbances from volatile export revenue on the government budget, monetary policy and the economy. As part of this function, many funds included (or gradually developed) rules for transferring part of their assets to the budget, thus assuming a financing function in addition to the stabilisation function. At some point, fund assets had to be invested, so they inevitably assumed some wealth preservation functions as well. And with the sharp and, perhaps, permanent rise in oil and commodity prices in recent years, some stabilisation funds have evolved further to wealth accumulation and saving for future generations.

In terms of sources of funding, the clear-cut cases are rents and tax revenues from natural resources; sales of government-owned assets such as land or state-owned enterprises; and fiscal surpluses. Less clear-cut are the cases when part of foreign exchange reserves is carved out to form a sovereign wealth fund – much of foreign exchange reserves represents borrowed funds on account of sterilised intervention of foreign exchange inflows to the private sector

– or when assets are transferred from other government-owned portfolios (e.g. the finance or economy ministries' equity shares in various companies).

Finally, different funds could be distinguished on the basis of current uses of their resources: stabilisation of government budget based on overall fiscal developments (“needs-based” stabilisation); rules-based financing of a certain proportion of government expenditure; and the prevailing use of fund resources, for instance, infrastructure development, financial market development (e.g. recapitalisation of financial institutions) or external debt repayment.

### Stabilisation funds

Countries relying on exports of natural resources face macroeconomic stabilisation challenges on several fronts. First, revenue streams associated with such exports tend to be very large and very volatile.<sup>5</sup> Second, the use of foreign exchange inflows from natural resource exports can have major effects on macroeconomic stability and economic structure. In particular, the domestic use of the inflows generally leads to an appreciation of the real effective exchange rate and a loss of competitiveness in the non-resource based tradable sectors of the economy. Third, much of the revenue from natural resource exports accrues to the government; spending of this revenue is thus subject to political influence and potential waste.

These considerations provide a rationale for the establishment of stabilisation funds for non-renewable resources, which are essentially mechanisms designed to reduce the impact of volatile foreign exchange inflows on the economy (and/or of volatile revenue on the government

**Table 2**

**Taxonomy of special government asset funds**

Goals/motives for establishment	Source of funding	Uses of fund resources
Stabilisation of macroeconomic impact of natural resource revenue	Natural resource rents and taxes	Fiscal stabilisation (needs-based)
Saving/intergenerational transfers	Fiscal surplus	External debt repayment
Sovereign wealth management	Government asset sales (land, privatisation revenues)	Rules-based financing of government expenditure
Fiscal surplus	Transfer of other government-owned assets (company shares, foreign exchange reserves)	Infrastructure/financial market development
	Borrowed funds (sterilised intervention of foreign exchange inflows to the private sector)	Funding of future pension and health care liabilities
		Intergenerational transfers

<sup>5</sup> Oil exports accounted on average for 65% of total exports and 26% of GDP in OPEC member countries during 2001-04. Regarding volatility, the standard deviation of the ratio of oil exports to GDP was 3.2 percentage points, compared with total GDP volatilities in industrial countries of about 2 percentage points of GDP.

budget) by transferring this impact to the fund. The fund's objectives may also include supporting fiscal and monetary discipline and providing greater transparency in the foreign exchange market and the spending of government revenue. For instance, most stabilisation funds allow the inflows to pay off public sector external debt as this automatically redirects the inflows abroad and thus limits the impact on the local economy.

Many oil-exporting countries – including Algeria, Norway, Russia, Venezuela and several Central Asian and Persian Gulf countries – have established oil stabilisation funds. Many of these funds – eg the Russian Federation's Stabilisation Fund – are designed to accumulate resources when the oil price or revenue exceeds some threshold, and to pay out when the price or revenue falls below a second threshold. Chile's copper stabilisation fund, established in 1985, has rules of accumulation and withdrawal that are based on a reference copper price set annually by a panel of experts advising the government. The existence of such a fund helps the government resist expenditure pressures during upswings in copper prices, and reduces the need to borrow during the downswings.

Some funds additionally have operational rules designed so that they regularly finance a part of government expenditure. In Norway, for instance, the expected real return on the fund, assumed to be 4% of the fund's market value, can be transferred to the central government budget each year. By providing an explicit and transparent link between asset accumulation and the budget, such rules-based financing shields the budget from revenue uncertainty and volatility.

One should note that stabilisation funds do not deal with spending or deficits at the government level. If there is insufficient control of spending or deficits on the regular budget, the operation of the fund cannot ensure fiscal discipline. This provides a rationale for supplementing stabilisation funds with special fiscal rules. For instance, the government in Chile has to generate a 1% surplus on its structural fiscal balance each year, estimated by removing the effects of variations in copper prices and the economic cycle on revenues.

## Savings funds

Revenue from non-renewable resources constitutes national wealth that can be approximated by the rent earned in their production, essentially the proceeds from projected future sales after deduction of relevant extraction costs (including profits accruing to the companies involved). Using the principle of intergenerational equity one can argue that this national wealth should be managed in a manner that will

leave future generations at least as well off as the current one. The idea to create a store of wealth for future generations represents the savings motive for the establishment of special foreign asset funds.

The savings motive does not preclude spending part of the resource revenue. In many countries there is a clear need to build up or upgrade domestic infrastructure, clean-up the financial sector from old debts or strengthen its capital base after a crisis, and improve the quality of public services. The present generation could thus use up part of the natural resource wealth and leave future generations wealth in the form of physical infrastructure, a more stable financial system and improved public institutions. Such public expenditure could also crowd in private investment in the process. The decision about the form of asset accumulation – financial vs. real – would depend on the absorptive capacity of the economy. One danger is that investment spending might rise to an unsustainable level, or that too quick an increase might result in poor-quality projects. In addition, a perception that resources are readily available for domestic uses could create incentives for rent seeking and make the fund prone to abuse.

Savings funds have for instance been established in Norway, Alberta, Alaska and Kuwait. Norway's Petroleum Fund, established in 1990 (now called the Government Pension Fund – Global), collects all government's net income from oil and invests it in financial assets to be drawn upon in the future. The present generation benefits from interest income earned on fund's investments. The future generation benefits from a permanent stream of income on financial assets that have replaced oil in the ground.

## Sovereign wealth funds

The main objective of some large government asset funds is neither stabilisation nor accumulation of new saving but rather the management of new assets. Funds with this main objective could be termed "sovereign wealth funds". Some of these sovereign wealth funds were carved out of existing official foreign exchange reserves. Others, such as Government of Singapore Investment Corporation, Abu Dhabi Investment Authority and Kuwait Investment Authority have operated for several decades as institutional investors managing the government's assets portfolios. One should note that the distinction between sovereign wealth funds and saving funds such as Norway's petroleum fund becomes less clear as the size of accumulated savings increases. After some threshold, it becomes intuitively clear that enough savings has been accumulated – in the case of Norway, almost 100% of GDP – and the main issue becomes how to manage the fund's assets prudently while realising a reasonable rate of return.

In addition to the rapid increase in their number, sovereign wealth funds have attracted attention because of the size of their assets – especially in emerging Asia and the Middle East – which is comparable with some of the largest public pension plans and central bank reserves in the world. For instance, the Abu Dhabi Investment Authority, founded in 1976, is responsible for investing all of the Abu Dhabi government's oil revenues and assets in international capital markets. Its size is estimated conservatively at \$500 billion, and up to \$875 billion according to some private sector estimates. A few decades ago the government of Singapore created two investment arms: Temasek holdings, which manages government shares in many of Singapore's largest companies; and the Government of Singapore Investment Corporation (GIC), which invests primarily the government's foreign reserves.

A recent example of a sovereign wealth fund is Korea Investment Corporation. It was launched in 2005 with a capital of 100 billion won funded by the foreign exchange stabilisation fund. It will initially manage \$20 billion of Korea's foreign exchange reserves with the objectives of generating return on foreign currency assets and fostering the development of Korea's asset management business. A similar case is State Investment Corporation, established in September 2007, which will initially manage \$200 billion out of \$1.4 trillion in China's foreign exchange reserves. Russia's oil stabilisation fund will be split into a reserve fund and a fund for future generations starting in February 2008.

Sovereign wealth funds take different forms and pursue different objectives but share one common characteristic: their origin lies in the prior accumulation of very large foreign exchange or fiscal reserves. As central banks and governments have become more comfortable with the level of reserves, they started to transfer a part of reserves to non-traditional purposes such as government investment corporations (Korea, Malaysia) or restructuring of state-owned commercial banks (China). In addition to conceptual issues, this shift in perspective raises a number of questions about the institutional locus, investment guidelines and governance of foreign asset funds.

## **Governance, transparency and accountability**

Best practices have already been developed for governance of commodity-based funds and they generally mirror best practices for fiscal transparency (IMF, 2005). They highlight government and civic representation, access to dedicated

expertise, accountability and transparency. A typical model governance structure includes enabling legislation (which includes the basic tenets of the fund, but not specific eligible investment instruments, portfolio parameters or benchmarks); a board of trustees comprising representatives from the government and legislature, or independent experts answerable to the legislature; and an investment management agent. The board typically formulates investment policy (in particular the strategic asset allocation), while the actual asset management can be performed by either a specialised government agency or the central bank. Asset management could also be subcontracted to private investment managers, with their selection decided in a similar way as for other government procurements.

Best practices for non-commodity-based SWFs have yet to be developed. For existing funds, actual practices span the whole spectrum, from full public disclosure and independent oversight of the rules and operations (as in Norway), to the exercise of more or less full discretion on the part of the authorities controlling the fund. In some cases, the provision of information about SWF operations is not allowed under local legislation. Control and oversight of funds in these institutions is usually restricted to a handful of key government officials. Thus, no information is available about their internal checks and balances, investment strategy or commercial goals.

Central banks have frequently played a role in designing the institutional setup of SWFs; in particular, how far the fund should be integrated with central bank operations or rather operated as a stand-alone entity. Direct central bank involvement in the management of wealth funds has the advantage of maintaining centralised control of SWF assets in one place and avoiding the additional costs of setting up a new and untested management entity. This reflects the fact that many central banks already have systems and skills to manage equity and other higher-return investments. The integrated approach could also allow faster reaction to market developments.<sup>6</sup>

Most SWFs nonetheless exist as stand-alone institutions. One major advantage of such an approach is that it insulates core central bank responsibilities, such as maintaining monetary and financial stability, from potential conflicts of interest. Another advantage is that wealth management is a different discipline from liquidity management. Even if both can be separated at the operational level, under any form of integrated approach the reporting lines might feed into the same group of senior central bank managers and board

<sup>6</sup> For instance, when Hong Kong's currency and equity markets were simultaneously under speculative attack in August 1998, coordination of official actions in foreign exchange and stock markets was helped by the fact that all decisions were taken within the Hong Kong Monetary Authority.

members, who might not have the same optimal risk-return trade-off as the government had mandated. A related issue is that of reputational risk: any significant loss suffered by an SWF operated by the central bank might harm the bank's reputation.

A midway solution is to establish a separate unit within the central bank to manage the SWF. In the case of Norway, the owner of the fund is the finance ministry, while operational management of the fund is delegated to the Norwegian central bank, with a mandate stipulated in a regulation issued by the ministry. The central bank established the fund as an independent wing, along the lines of an investment bank. Most fund managers come from outside the central bank and have experience in investment banking. Different reporting channels and different pay scales are used for fund managers and central bank officials. Responsibility for investment decisions always rests with a single fund manager. The central bank reports on fund operations to the finance ministry each quarter.

The benefits and costs of different governance arrangements are difficult to evaluate without considering the broader socio-political framework in countries where the funds are established. If the overall budget system is poor it is doubtful that a better subsystem can be created to deal with resource revenue and foreign assets. In a number of cases (e.g. Nigeria, Venezuela), oversight of natural resource funds has not always been adequate and assets of the funds were misallocated in the past (see Davis et al, 2003; Fasano, 2000; Mihaljek, 2005). Conversely, sovereign funds that have generated visible benefits for the population at large can be found both in economies that practice very transparent governance arrangements (e.g. Norway, Alaska, Alberta) and those that do not consider such arrangements necessary (e.g. Southeast Asian and Persian Gulf countries).

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## APPENDIX

Table 3

The fiscal risk matrix

<b>Liabilities</b>	<b>Direct (obligation in any event)</b>	<b>Contingent (obligation if a particular event occurs)</b>
<p><b>Explicit</b> Government liability as recognised by a law or contract</p>	<ul style="list-style-type: none"> <li>• Foreign and domestic sovereign borrowing (loans contracted and securities issued by central government)</li> <li>• Budgetary expenditures</li> <li>• Budgetary expenditures legally binding in the long term (civil servants' salaries and pensions)</li> </ul>	<ul style="list-style-type: none"> <li>• State guarantees for non sovereign borrowing and obligations issued to sub-national governments and public and private sector entities (development banks)</li> <li>• Umbrella state guarantees for various types of loans (mortgage loans, student loans, agriculture loans, small business loans)</li> <li>• Trade and exchange rate guarantees on private investments</li> <li>• State guarantees on private investments</li> <li>• State insurance schemes (deposit insurance, income from private pension funds, crop insurance, flood insurance, war risk insurance)</li> </ul>
<p><b>Implicit</b> A moral obligation of government that reflects public and interest-group pressures</p>	<ul style="list-style-type: none"> <li>• Future public pensions (as opposed to government civil service pensions), if not required by law</li> <li>• Social security schemes, if not required by law</li> <li>• Future health care financing, if not required by law</li> <li>• Future recurrent costs of public investments</li> </ul>	<ul style="list-style-type: none"> <li>• Defaults of sub-national government or public or private entities on non guaranteed debt and other obligations</li> <li>• Cleanup of liabilities of entities being privatised</li> <li>• Banking failure (support beyond state insurance)</li> <li>• Failure of a non guaranteed pension fund, employment fund, or social security fund (protection of small investors)</li> <li>• Default of central bank on its obligations (foreign exchange contracts, currency defence, balance of payments stability)</li> <li>• Bailouts following a reversal in private capital flows</li> <li>• Environmental recovery, disaster relief, military financing</li> </ul>

Source: Polackova (1999).