



Should Nigeria Establish a Sovereign Wealth Fund?

Menachem Katz and Cijeyu Ojong

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Executive Summary

This paper explores the issues relating to the establishment of a Sovereign Wealth Fund (SWF) in Nigeria consistent with best practices. Experience with established SWFs suggests that successful oil-based funds tend to be underpinned by a sound oil revenue management framework. The paper thus discusses the underlying issues of oil revenue management, the policy choices and SWF implementation issues.

SWF are investment vehicles created and owned by governments or sovereigns with the strategic aim of leveraging current account surpluses and temporarily high revenues to invest in income-producing assets that promise high risk-adjusted returns in the financial markets. They offer economic and financial benefits. SWFs, under sound oil revenue management frameworks, can help to mitigate boom-bust cycles in the home countries, and facilitate the saving and transfer across generations of proceeds from fiscal surpluses emanating primarily from oil. By allowing for greater portfolio diversification, they reduce the opportunity cost of reserve holding, but at the same time increase the risk.

The need to smoothen the effects of volatility in oil prices by saving more in periods of high prices, as well as the understanding that oil is a depleting resource form strong push factors for oil producing countries to invest a good part of their oil earnings in SWFs. The position is reinforced by the perceived threat to oil as the dominant source of global energy given the mounting efforts directed towards searching for alternative, cleaner and environmentally more friendly energy sources.

¹ This paper benefitted from comments from David Nellor, Ebere Uneze, and other participants at a CSEA seminar which took place on December 14, 2009 at the New Chelsea Hotel in Abuja.

Many countries across different regions of the world with current account surpluses and temporarily high incomes from non-renewable resources such as oil export have increasingly tended to invest in SWFs. By 2008, there existed a little over 50 SWFs - owning about \$3 trillion dollars in assets. However, the recent financial crisis and global recession have demonstrated that such funds can also incur capital losses and indeed SWFs with exposure to equity markets have suffered substantial losses.

Confronting the challenges of oil revenue management for any oil-exporting country requires sound policies, strong institutions and a credible governance structure that ensures transparency and accountability. Nigeria has in recent years been more successful than at any time in its history in insulating the domestic economy from the volatility of oil prices and revenue through the creation of the excess crude account and adherence to an oil-price based rule. The discussion of the possibility of Nigeria establishing a SWF presents an excellent opportunity for reviewing the country's experience with oil revenue management and examining actions needed to address weaknesses of both design and practice.

For purposes of sound macroeconomic management, consideration should be given to fiscal sustainability and equity across generations in the selection of the reference oil price for the national budget. This should be done by preparing a budget in which the non-oil primary balance is consistent with fiscal sustainability. However, considerations of fiscal sustainability and equity should not take precedence over macroeconomic stability objectives. In this regard it is critically important to note the low efficiency of government spending which should underline the need for containing pressures for increased public spending. The shortcomings associated with the current

governance structure of the excess crude account – transparency, accountability and appropriate legislation have to be addressed for making sustainable progress in the effective management of oil revenues.

Importantly, to enhance the effectiveness of the fiscal rule efforts should continue to get buy-in by all states to the Fiscal Responsibility Act (FRA). The *Excess Crude Account and the* oil-price based fiscal rule established in 2004 are the nearest Nigeria came to managing surplus revenues from oil exports with the semblance of a SWF. However, the Excess Crude Account has continued to generate political controversy among the different tiers of government since it is loosely regarded as an administrative creation of the Federal Government that lacks Constitutional backing and clear rules of operation. The most direct legislation that has sought to entrench fiscal prudence, transparency and accountability in the management of government revenues in Nigeria is the FRA. The act, however, is limited in its scope of application and is binding on the Federal Government but not on other tiers of government, which could undermine its very objective of fostering macroeconomic stability.

To the extent that the 1999 Constitution provides that virtually all revenues (with the exception of the value added tax) must be paid into the federation account and shared among the different tiers of government under an agreed formula, the vent opens for the kind of controversies and political agitations currently being witnessed in the operation of the excess crude account. With the benefit of hindsight, therefore, it would be desirable to accord a proposed SWF (including the FRA) full constitutional recognition if the existing and potential conflicts associated with the operation of the precursor excess crude account are to be resolved. This of course would entail a multi-stakeholder buy-in and

ownership, including in particular by all tiers of government. If constitutional recognition is not feasible, adoption of appropriate laws by all states would constitute a second best option.

A recent survey of SWFs found that the legal basis and form which establishes funds varies from country to country but a little more than 50 percent of the funds in the survey are established as legal entities separate from the central bank. SWFs falling under this category have an enabling law or operate as a private corporation established under company law. SWFs not falling under this category are usually controlled by the ministry of finance and operationally managed by the central bank or a statutory management company. Some SWFs are established by general fiscal laws, including fiscal responsibility laws. In some cases where SWFs are established as pools of assets, the management agreement between the MoF and the central bank are publicly disclosed.

Nigeria can opt for a formal SWF with an appropriate governance structure which would allow the fund to have a higher potential return but will expose it to a higher risk vis a vis the current investment policy. This paper presents the institutional and legal and legislative steps, stressing the importance of actions to ensure a buy-in by civil society for the establishment of such a SWF.

In order to operationalize the establishment of a SWF for Nigeria, *A Nigerian Investment Corporation* could be created as an autonomous unit of the Federal Ministry of Finance to undertake the operational management responsibilities of the SWF. It should have a Board of non-executive directors drawn from relevant ministries, departments and agencies, including the Central Bank of Nigeria (CBN); the Board could

include members of civil society and the private sector. The SWF would be funded from oil revenues over the budget benchmark or referent prices. The Corporation should be mandated to invest in high-yield triple A-grade rated debt instruments and other quality securities in the international financial markets. It should be required to formulate and make public its investment strategy and its approach to managing risks; and to publish audited accounts annually, with an annual report covering its performance and activities prepared and tabled before the National Assembly for scrutiny every fiscal year.

Alternatively, Nigeria can strengthen the governance of the current framework of the excess crude account to make it consistent with best practice but keep its investment options limited to those of official international reserves of the CBN. These investment instruments, which consist of short-term treasury securities of the major economies, would yield low return but will not be subjected to high risk.

Overall, there is no clear a priori advantage to either option for Nigeria. What should be clear is that the establishment of a sovereign wealth fund or the reinforcing of the current structure could prove timely as this would both further strengthen the current oil revenue management framework and enhance the governance of its Excess Crude Account in whichever form it may take.

I. Introduction

To answer the question on whether Nigeria should establish a Sovereign Wealth Fund (SWF) one needs to examine the broader issue of oil revenue management and best practices there under. It is now common knowledge that the main challenges faced by oil producing countries stem from the high volatility of oil prices, the exhaustibility of oil reserves, the enclave nature of the petroleum sector, and the high concentration of revenue flows from the oil sector, which may give rise to rent seeking activities (Davis and others,2003; and Katz and others 2004). These challenges are more pronounced than those faced by other economies. Therefore, the policy choice and accompanying institutions and practices play a critical role in determining whether an oil exporting country will be better off with oil vis a vis other economies. This paper aims to contribute to the public discussion on the future form of the excess crude account in Nigeria and whether, and if so, how, it should be transformed to a full-fledged SWF. It discusses the underlying issues of oil revenue management, the policy choices and implementation issues.

Expenditure smoothing through de-linking government spending from current revenue has been one of the critical factors in attaining and maintaining macroeconomic stability in the face of oil revenue volatility (Davis and others 2003). In determining the level of spending consideration is also given to fiscal sustainability and equity across generations in the face of the exhaustibility of petroleum. These considerations have given rise to National Revenue Funds (NRFs) which can take two forms, stabilization

funds and saving funds. Stabilization funds aim to smooth government expenditure by accumulating surpluses during boom years to serve as a buffer against future oil price declines. Saving funds aim at accumulating savings for use by future generations (Davis and others 2001). Sovereign Wealth Funds are a form of NRFs.

Experience shows that a large number of oil producing countries, with or without SWFs, have not succeeded in managing their oil revenues efficiently. These countries have suffered from what has been termed in the literature the “oil curse” (see Gelb and associates, 1988), which is prevalent in economies that depend heavily on petroleum for government revenue and foreign exchange and whose institutions are weak (Katz et al 2004). The main manifestations of the oil curse are “boom-bust” cycles; real appreciation of the exchange rate--Dutch disease and the shrinking of the non-oil economy; and waste and corruption in spending and lack of transparency and accountability. All these result in weaker economic performance in relation to non-oil based economies. Nigeria can be viewed as a prime example of an economy that has suffered from the oil curse (Eifert et al, 2002). Five decades of oil production have not brought Nigeria the prosperity that it has expected. And with an estimated \$450 billion in oil revenue over this period there is little to show in terms of physical and human capital. In fact, the country’s physical infrastructure remains in disrepair and its social indicators rank low even among low-income countries².

Starting in 2004 the federal government began implementing a new oil revenue management policy which has largely succeeded in stabilizing the macro economy

² As indicated by recent World Bank and UN human development reports.

through the adoption of an oil price-based rule to the budget. Adherence to the rule has insulated the budget from the large volatility in oil prices, lowered inflation considerably and resulted in an unprecedented build up (by Nigerian standards) of foreign official reserves. As part of the adherence to a price-based rule Nigeria accumulated oil savings in what has been termed the “excess crude account” held at the Central Bank of Nigeria (CBN). This policy has also facilitated the virtual elimination of Nigeria’s official external debt, which was financed with accumulated oil revenues.³ Experience with the excess crude account in Nigeria as well as with well-established SWFs elsewhere suggests that successful oil- based SWF tend to be underpinned by a sound oil revenue management framework.

The rest of the paper is organized as follows: Section II reviews the theoretical issues underpinning NRFs and SWFs; Section III sketches the experience of other countries with NRFs and SWFs; Section IV examines the current practice of oil revenue management in Nigeria; Section V explores the institutional and legislative issues surrounding the establishment and management of SWFs. Finally, Section VI concludes the paper and proffers policy options for Nigeria.

II. Theoretical Issues Underpinning NRFs and SWFs

This section reviews the theoretical issues underpinning oil revenue management. NRFs and SWFs have been established, at least in part, in order to address economic policy challenges faced by oil-based economies. These challenges are: oil prices and therefore oil revenues are

³ Falling oil prices and expansionary fiscal and monetary policies since 2007 have resulted a rise of inflation to double-digit levels and a sharp decline in the excess crude account.

highly volatile making it difficult to design budgets and maintain macroeconomic stability; oil revenue is a foreign exchange inflow and its use in the local economy can have large effects on the exchange rate and the structure of the economy; oil is an exhaustible resource with a finite revenue stream and therefore issues of intergenerational equity have to be considered; and oil revenue flows are large in relation to other sources of revenue and tend to flow through few hands which may give rise to rent-seeking activities and outright corruption.

A volatile and uncertain budgetary revenue source renders fiscal policy in an oil-dependent economy difficult. These difficulties relate to all budgetary stages starting with budgetary planning, management, and the efficient use of resources. Oil prices have been shown to be considerably more volatile than other commodities. The volatility of oil prices in international market in recent months provides a clear illustration of this point. Oil prices shot up to almost 150 dollars per barrel in early 2008 only to fall to below 40 dollars per barrel later in the year; oil prices in late October 2009 stood at about 75 dollars per barrel.

Consider a government that prepares a budget on the basis of a high oil price. When oil prices fall sharply and unexpectedly the government faces tough choices: cut current expenditures, cut capital expenditure, or maintain spending by borrowing and incurring debt. Cutting current expenditure may be socially damaging; cutting capital spending might involve the abandonment of viable project, which would affect the long-term growth prospects; while incurring debt, particularly in the face of a permanent decline in oil prices may jeopardize fiscal sustainability. Indeed, the “boom-bust” cycles induced by frequent adjustments of budgetary

expenditures are not conducive to private sector activity nor are they to the efficient delivery of public goods and services.

In practice, however, it is difficult to distinguish between permanent and temporary oil price shocks or to predict turning points in oil price cycles. Studies trying to determine regularity in the behavior of oil prices, e.g., whether they revert to a mean, have been inconclusive. Prudence would thus suggest that a negative shock should be seen as permanent and a positive shock as temporary, unless proven otherwise. As discussed below, it is critical to delink the government budget from the volatility of oil prices and oil revenue.

Designing fiscal policy is best done in a medium-term framework which can help link annual budget plans to longer-term national priorities and policies, and fiscal sustainability objectives. This in turn helps to promote predictability and improved resource allocation. Establishing such frameworks is particularly important for oil producing countries given volatile, unpredictable, and exhaustible oil revenues. Importantly, the medium-term budget framework (MTBF) can be designed to ensure that priority sectors and regions are properly funded, while mitigating the fiscal risks posed by reliance on oil revenue, including through a broadening of the non-oil revenue base.

Next we discuss the policy implications of the exhaustibility of petroleum. When a significant share of government revenue is derived from the exploitation of a non renewable resource that is in finite supply, intergenerational equity and fiscal sustainability considerations

need to be brought into the discussion. If, for instance, all oil revenue is spent on current consumption, then clearly future generations will not benefit from the oil wealth.

Alternative savings and expenditure rules can be considered. A continuum of possibilities exists for the choice of fiscal stance at a given oil price. Two “extreme” solutions frame the range of options, while a third one lies in between. Under the first option, which has been termed “going on a binge” (Katz and others, 2004), a rule is adopted in which the budget is balanced over the medium-term for a given projection of oil revenue. This would imply that the non-oil balance (the budget balance excluding oil-related revenues and oil-related expenditures) is negative by the amount of oil revenue, and the primary non-oil balance differs from the non-oil balance by the amount of net income from foreign assets.⁴

At the other “extreme” option for a fiscal rule lies the “bird in hand” approach which aims to build income generating assets and limiting consumption to the income actually generated. Thus, the revenue available for consumption in the following years would be determined by the projected return on assets accumulated in the past. Accordingly, the overall budget balance would be positive and the non-oil balance would be set at zero, while the non-oil primary balance would be negative by the return on assets accumulated in past years.

A third option for policy rule is the permanent income hypothesis (PIH) rule. The objective here is to preserve the government’s net worth, which is the net present value of

⁴ The use of the non-oil fiscal balance and non-oil GDP aims to de-link the macroeconomic aggregates from the impact of the volatility of petroleum prices.

future flows of revenues (and debts). Revenues can accrue from the sale of oil or from the return on financial assets accumulated from the past sale of oil. The permanent income hypothesis can be useful in establishing guidelines for intergenerational consumption smoothing. Assuming that all generations have the same real consumption of oil revenue, the PIH sustainable government consumption of oil wealth (or non-oil primary deficit) suggests that to preserve the oil wealth, government consumption should be equal to the interest revenue on oil wealth (a formal presentation of the formula for the calculation of the components of the PIH appears in appendix I).

On this basis, applying the parameters and assumptions of the medium-term macroeconomic framework in the government's program, a sustainable non-oil primary deficit can be derived which would underpin fiscal policy. Estimating petroleum wealth is highly sensitive to assumptions. Therefore, conservative assumptions should be used regarding physical reserves and future oil prices. To help stabilize expenditures, petroleum wealth and the PIH should be recalculated at a time of major reassessments of petroleum reserves or in the context of major oil price changes.

Today's oil consumption should leave sufficient resources in the NRF to fund equal amounts of government spending in real terms in later fiscal years. Such a framework would not only shield the domestic economy (in particular government spending) from oil revenue fluctuations and provide policy predictability, but would also help achieve fiscal sustainability in the sense that all generations would benefit from oil

resources (a similar calculation can be made with the objective to keep the per capita real wealth constant—see appendix I).

Large revenue flows from a volatile non-renewable resource have implications for macroeconomic stability and ultimately for economic growth. For an oil-exporting country, the risk to macroeconomic stability comes mainly from changes in the international price of oil and hence oil revenue, which is typically denominated in US dollars. Such a change, unless accompanied by changes in foreign and domestic savings, results in a balance of payments disequilibrium that can only be corrected by an adjustment in the real exchange rate. However, there is evidence that the volatility of the real exchange rate has been damaging to the non-oil economy and to capital formation (Hausmann and Rigobon, 2003).

Fiscal policy can play a role in mitigating the foreign shocks by smoothing spending on non-tradable goods and services as discussed above. The government can deposit the surplus funds at the central bank and thereby sterilize them, which would amount to the creation of an NRF. Again, during upturns governments can build up financial assets and during down turns they can draw on them to help smooth the cycle.

It is widely recognized that running fiscal surpluses is often difficult particularly in countries with democratically elected governments. The challenges become even more daunting in countries with weak social indicators and weak or dilapidated physical infrastructure. This raises questions about absorptive capacity and the quality of government spending. A related issue is the temptation to engage in rent-seeking activities and poor governance in the face of large inflows of oil revenue. These are

issues that policy makers and civil society need to contend with and develop institutions and practices that enhance transparency and accountability.

We have presented a rationale for saving some of the current oil revenue. The next question is whether the savings should be used to retire debt, or for investment in domestic assets or in foreign assets.

Retirement of debt could be worth undertaking if the interest on the debt exceeds the rate of return on the accumulated assets. Investing in domestic assets is limited by the small local capital markets while investment in domestic infrastructure may be limited by absorptive capacity and the need to safeguard macroeconomic stability and avoid real exchange rate appreciation.

Hence, the accumulation of oil revenue savings tends to take the form of investing in foreign assets. This in effect helps to sterilize the foreign exchange inflow to the domestic economy. In practical terms, oil revenue savings could be credited to a special treasury account at the central bank. Debits from the special treasury account would then finance the non-oil deficit, and the central bank, together with an oversight committee and perhaps some external financial experts, would determine how to invest government savings abroad.

Oil-exporting countries have developed NRFs to deal with various challenges discussed above and the literature has provided rationalization for them (Davis et al, 2001; Katz et al 2004). In this section we review the different types of funds and how they aim to address the challenges of volatility, intergenerational equity, fiscal sustainability, competitiveness, and governance.

The literature identifies three broad categories of NRFs, stabilization funds, saving funds, and financing funds. Depending on the design characteristics of a particular NRF funds may contain features of all three types of funds. Generally, funds are public sector institutions separate from the budget that manage inflows of oil revenue.

Stabilization funds aim to insulate the budget from the volatility of oil prices and oil revenue and transfer the volatility from the budget to the funds. Such funds are designed to accumulate resources when oil prices or oil revenue exceed a certain threshold and to pay to the budget when oil prices or oil revenue are below the threshold. A major challenge of stabilization funds is the need to ensure their sustainability. This is particularly pertinent at times of persistent falling oil prices and revenues when there is a danger that the funds will be depleted. This in turn requires flexibility in setting the threshold oil prices or oil revenue. In addition, the rules governing such funds would preferably stipulate that borrowing by the fund was not allowed. This would prevent further complications including debt and fiscal sustainability issues.

Saving funds aim to transform some of the physical oil wealth to financial wealth for future generations. As discussed above, the accumulation rule may stipulate that some share of resources or a fixed nominal contribution be deposited in the fund in order to build up financial wealth for the future.

The NRF under the PIH could be seen as both a stabilization and savings fund. It would be a stabilization fund since it would smooth consumption by saving oil revenue windfalls in good times and by providing the required resources in rainy days, therefore shielding the domestic economy from boom and bust cycles. It would be a saving fund

because it would save adequate resources to ensure equitable intergenerational consumption of oil wealth, even after exhaustion of oil resources. In other words, this corresponds to the transformation of physical oil into financial assets.

A third category of funds is the financing fund which is designed to finance the overall budget balance. In such a fund, the budget is required to transfer to the fund the net oil revenues and in turn the fund finances the non-oil deficit. If the budget is running an overall surplus, this surplus is transferred to the fund; if the budget is in deficit, it would be financed by the fund.

A sovereign wealth fund can be defined as a special government asset vehicle which invests public funds in a range of instruments. SWFs derive their funding sources from commodity-based revenues largely oil and gas; other SWFs' sources of funding are obtained from fiscal surpluses; and a third category from foreign reserves that stem from sterilized foreign exchange interventions. Most SWFs have the mandate to enhance returns beyond liquidity and safe keeping of foreign exchange reserves and invest in riskier class assets. Based on their purpose SWFs can be classified into three types of funds: revenue stabilization funds, future generation funds, and "generic" SWFs which combine stabilization and saving for future generation functions, as well as budget financing functions.

SWFs offer economic and financial benefits. They can help to mitigate boom-bust cycles in the home countries, and facilitate the saving and transfer across generations of proceeds from fiscal surpluses emanating primarily from oil. By allowing for greater

portfolio diversification, they reduce the opportunity cost of reserve holding, but at the same time increase the risk.

III. Country Experiences with SWF

Over the past half a century, SWFs have increased dramatically in number and size to some 50 SWFs worth more than \$3 trillion dollars in assets in 2008 ([U.S. Department of Treasury](#)). The IMF and Morgan Stanley have projected that SWFs' assets could increase further to US\$5 to US\$10 trillion by 2012-2013. While the specific term *Sovereign Wealth Fund* is a relatively new coinage in the literature associated with Razanov (2005)⁵, activities of the nature characterized by the definition of SWFs have been in existence for a little over five decades. For instance, the Kuwait Investment Office which manages funds for the Kuwait Investment Authority was created in 1953; Singapore Temasek Holding, created in 1974; Kuwait Reserve Fund for Future Generations, created in 1976; and Norway Government Pension Fund, created in 1990.

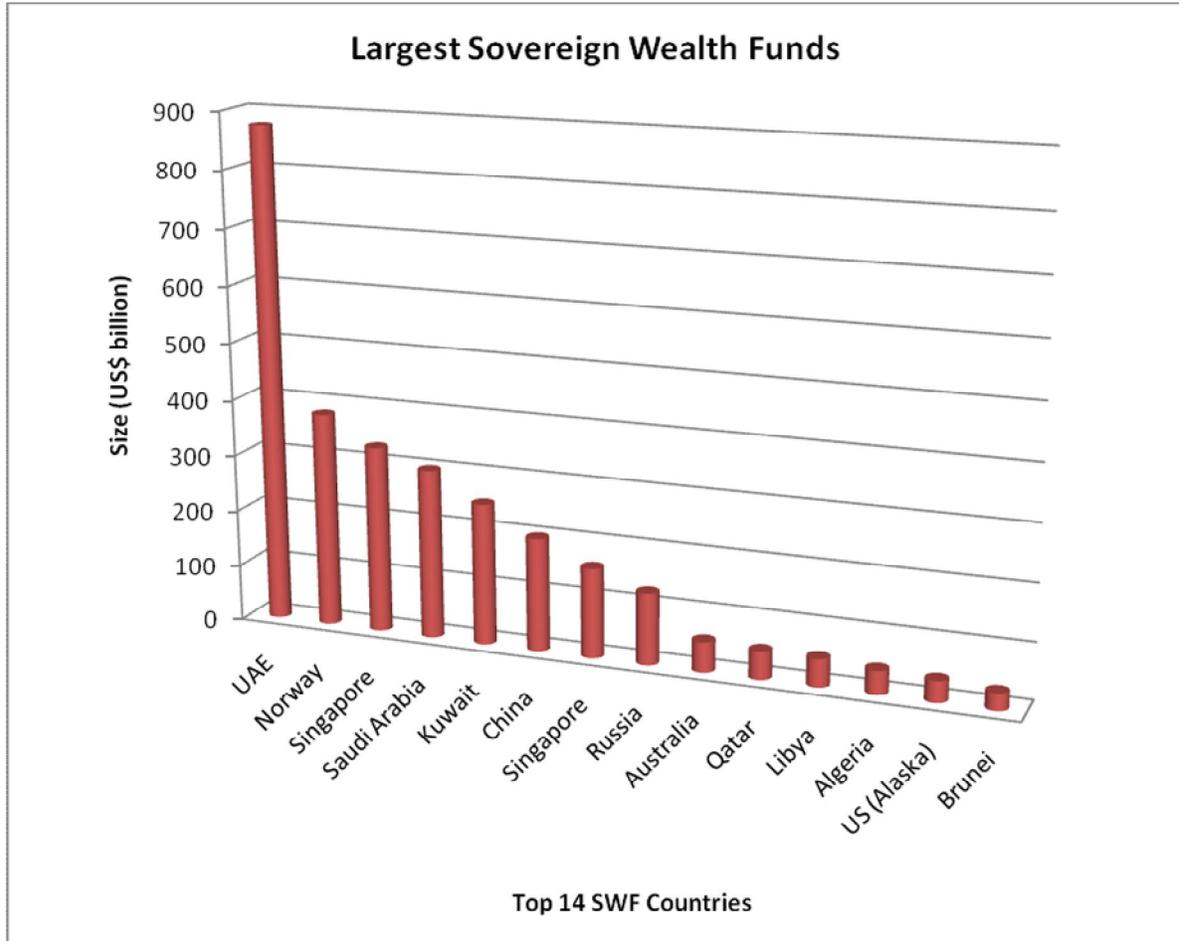
The popularity of SWFs has been sweeping across countries and regions in different parts of the world, with countries that are not strictly oil-exporting making significant forays into the creation and ownership of SWFs. For such other non-commodity countries, the drive towards SWFs is rationalized by the need to utilize favourable current account positions and rise in foreign exchange reserves to stabilize incomes or meet anticipated expenditure patterns into the foreseeable future: For instance, The Australia Futures Fund is intended to save current budget surpluses for

⁵ Andrew Rozanov, 2005, Who Holds the Wealth of Nations, Central Banking Journal, Volume XV, Number 4.

expected liabilities in health care and pensions. China, a relatively poor but rapidly developing country has a large SWF being managed by the China Investment Corporation – CIC). That the majority of countries with SWFs are oil-exporting countries is not unconnected with the need to smoothen the effects of volatility in oil prices by saving more in periods of high prices.

Chart 1 below (and Table 1 in Appendix II) reveals that 10 of the top 14 countries with the largest size of SWFs, measured by asset holding, relate to the oil-producing countries of: United Arab Emirates, Norway, Saudi Arabia, Kuwait, Russia, Libya, Algeria, USA (Alaska) and Brunei. The combined share of the total value of sovereign wealth funds held by oil producing countries amounted in 2008 to *US\$ 2,143 billion* or approximately *74 per cent*, (whereas the non-commodity (oil) countries in the top 14 largest SWF bracket collectively own *US\$ 744 billion* or approximately *26 per cent*). The understanding that oil is a depleting resource forms a strong push factor for oil producing countries to invest a good part of their oil earnings in SWF towards safeguarding the future when oil reserves run-out. This view is reinforced by the mounting global efforts directed at searching for alternative, cleaner and environmentally more friendly energy sources.

CHART 1



Source: Morgan Stanley, 2008.

The recent financial crisis and global recession have brought about substantial losses to SWFs with exposure to equity markets. According to an assessment by staff at the Council on Foreign Relations (CFR) Abu Dhabi Investment Authority may have lost

\$125b in 2008.⁶ According to the report: "A high allocation to equities, emerging market, and private equity," contributed to the drop".

A recent survey of practices of SWFs in 21 countries shows that they share broad institutional and operational practices (C. Hammer et al, 2008, IMF Working paper WP/08/254).⁷ While noting that current practices of SWFs vary considerably reflecting the nature and objectives of the different funds, the survey finds that SWFs with similar objectives as a group share some broad common practices. The paper observes that SWFs generally do not engage directly in macroeconomic policies but they allow for: (a) transfers to the budget for exceptional and targeted needs; (b) the drawdown of funds for transfer to the central bank in case of exceptional balance of payments or monetary policy needs. SWFs make their data available to compilers of statistics; have internal audit arrangements and their external audits are conducted by independent audit firms; they share common standards to prevent the abuse of funds; require public disclosure of their operations; and have established risk management practices and observe constraints on investment classes and instruments.

The survey notes that the legal basis and form which establishes SWFs varies from country to country. A little more than 50 percent of the funds in the survey are established as legal entities separate from the central bank. SWFs falling under this category have an enabling law or operate as a private corporation established under company law. SWFs not falling under this category are usually controlled by the ministry

⁶ Abu Dhabi's fund was "hard hit by the recent fall in global equities," economists Brad Setser and Rachel Ziemba wrote in a report released on the Web site of the Council on Foreign Relations, A U.S. think-tank.

⁷ An International Working Group of Sovereign Wealth Funds (IWG) was established on April 30, 2008, to identify and draft a set of principles that properly reflect their investment practices and objectives.

of finance and operationally managed by the central bank or a statutory management company. Some SWFs are established by general fiscal laws, including fiscal responsibility laws. In some cases where SWFs are established as pools of assets, the management agreement between the MoF and the central bank are publicly disclosed.

Appendix II provides a brief summary of the major SWFs and their main features. It also discusses countries that contemplate the creation of such funds.

Concerns about Sovereign Wealth Funds

Some concerns and even controversies have been raised regarding the true objectives of SWFs; their potential impact on the financial systems of host economies that provide the market theatre for the investing activities of SWFs; as well as the possession of requisite expertise to make the right investment choices, keeping in view the risks associated with the investment and management activities of the Funds. Experience has equally shown that not all SWFs are successful; countries such as Oman and Venezuela for instance have used revenue funds in the past but have not prudently managed their oil revenue. This is however mostly due to non-adherence to NRF rules (including frequent changes to the rules) and poor oil revenue management.

It has been argued that the rationale for SWFs is opaque from a consumption-smoothing perspective – China’s SWF (CIC) is seen as a case a point (Neely, 2008). Why would China accumulate foreign assets, rather than increase consumption or invest more in domestic physical assets? Some would see the move more as having a politico-economic motivation since China’s foreign exchange intervention strategy produced the CIC’s assets as a by-product. To restrain the rise of their currency’s value, the Chinese

State Administration for Foreign Exchange has long purchased foreign currency (by selling their own). Ordinarily, this intervention would raise the Chinese money supply, producing domestic inflation, but the People's Bank of China issues securities to mop up the excess liquidity created by this foreign exchange intervention. The ultimate outcome is that the Chinese government exchanges its own bonds for foreign assets. Therefore logical conjecture is that China's high savings rate reflects "precautionary saving"—saving against a downturn.

The following additional concerns about the risks associated with SWFs have been raised:

i) Their *potential impact on financial market stability*. The possibility exists of unseen, imprudent risk management with broader consequences since not much is known about their investment policies, so that minor comments or rumours will increasingly cause volatility as market participants react to what they perceive Sovereign Wealth Funds to be doing. SWFs are typically not directly regulated by their domestic financial authorities, and the extent of indirect regulation may also be limited. Investor discipline will depend on what their citizens know and how active they are in monitoring fund activities, rather than the market discipline of savvy institutional investors. Further, the funds' counterparties and any creditors may simply assume a sovereign guarantee and fail to exercise market discipline.

ii) Risk that the *size, methods of operations* and *investment policies* could *fuel financial protectionism*. Globalization, despite its benefits, is raising sensitivities around the world. This is not just a U.S., European, or even industrialized country issue.

Emerging markets have also at times expressed sensitivity to certain investments by other emerging markets. There will likely be much public attention to whether SWFs exercise the voting rights of their equity shares, and if so, how. If SWFs obtain operational control of the companies in which they invest, the fact that they are government entities may invite additional scrutiny. Finally, these sensitivities and pressures to block sovereign investment would worsen if SWFs investment decisions were made for non-economic reasons.

iii) *Risk of corrupt and corrupting practices.* In view of the huge sums of money handled by few hands there are temptations to engage in rent-seeking activities on the part of both SWF managers and suppliers of investment instruments. Therefore, there is a **need for** strong fiduciary controls and good checks and balances as well as portfolio diversification across a wider range of asset classes.

iv) **Risk of entrenching bureaucracy.** Being created and owned by governments, SWFs run the risk of becoming powerful bureaucracies. The Funds should be managed as professionally and independently as possible; and if created to meet a particular purpose like handling a temporary phenomenon, such funds should not become self-perpetuating where such purpose(s) become satisfied. This should allow for a thorough examination of underlying policies.

In sum, it should be recognized that NRFs and SWFs cannot on their own address all the problems associated with revenue volatility. The politico-economic environment in a country plays a significant role in determining the success of NRFs and SWFs. Such

incentives and disincentives that governments face are central to how well revenue from natural resources is managed. Thus, the critical issue in the design of a SWF or NRF is on how to best use the funds as leverage to shape the political-economic incentives of governments. It is therefore argued that in countries where the politico-economic incentives that governments face may not foster prudent revenue management, SWFs on their own could not be expected generate prudent expenditure paths and stable macroeconomic environments.

IV. Nigeria's Experience With Oil Revenue Management

It is well recognized that Nigeria's history with oil revenue management during 1961-2003 had generally been very poor. Policy makers were highly ineffective in insulating the domestic economy from the volatility in oil markets. Volatility in oil prices and oil revenue was often directly transferred into the domestic economy via fluctuations in public expenditure, in the real exchange rate and in real GDP growth. Calculations of the relationship between fluctuations in oil revenue and public spending in Nigeria show a high degree of correlation (see Katz and others 2004; and Okogu and Osafo-Kwaako, 2008).

The cost of such macroeconomic volatility in Nigeria was significant. First, expenditure volatility brought about low quality of public spending often resulting in many unfinished projects and the accumulation of payment arrears to procurers and contractors. Macroeconomic instability also hindered private sector activity which became increasingly dependent on government spending. The result was a shift from long-term investment to short-term arbitrage activity and low economic growth.

Attempts were made in the late 1980s to smooth government spending by saving oil revenue above a reference price for oil in a special stabilization fund. However, in practice the fund did not perform the stabilization function as large sums were withdrawn from the fund at a time of rising oil prices. Lack of transparency and abuse doomed this experiment to failure.

As part of the reform program that began in late 2003 the government adopted an oil-price based rule to guide fiscal policy. Under this rule any revenue received above the benchmark price and a given volume of production is to be saved in a common account termed “the excess crude account” for the three tiers of government. The adoption of the oil-price-based rule succeeded in delinking fiscal spending at all tiers of government from oil revenue fluctuations and was instrumental in keeping spending broadly in line with absorptive capacity and improving macroeconomic stability. It resulted in significant surpluses during 2004-07 and an unprecedented (for Nigeria) buildup of assets in the excess crude account and in international reserves by the CBN. This buildup also facilitated a debt deal with Nigeria’s official creditors which brought about the almost complete elimination of Nigeria’s external debt. At end 2007 Nigeria’s cumulative oil savings in the excess crude account amounted to US\$17 billion equivalent to 16 percent of non-oil GDP.

Nigeria’s constitution provides that the three tiers of government share in oil revenue according to the following allocation: oil producing states receive 13 percent upfront as derivation grants; of the remaining 87 percent, the federal government receives 52.7 percent, states 26.7 percent and local governments 20.6 percent.

The oil price-based rule in place since 2004 has been based on political agreement. It was planned that the recently signed Fiscal Responsibility Act (FRA) would institutionalize this “voluntary” use of the oil-price-based rule. However, legal observers have determined that most of the provisions of the FRA apply only to the federal government. While there was an understanding that states would move to pass similar legislation at the state level, progress in this area has been slow. In fact, there is growing pressure by states to spend not only current surpluses over the reference oil price but also draw down their share in the excess crude account. Also, in determining the benchmark price of oil it is not clear that policy makers take into account issues of intergenerational equity and fiscal sustainability.

Nigeria’s “oil fund”—the excess crude account, is not governed by comprehensive or explicit rules. A broad rule in the budget generally sets a reference price of oil above which government revenues are supposed to be saved in the fund, but there have been frequent exceptions—ad hoc decisions to lower contributions below what is stipulated under the rule or ad hoc withdrawals. The chronic infrastructure deficit and weak social indicators have put pressure for funds to be devoted to domestic spending rather than cross-border investment, very low efficiency of spending notwithstanding.

At present, the fund is held at the central bank and is segregated from other international reserves but is basically invested in the same way, in short-term deposits or liquid securities. The CBN charges the government a fee for managing the account. On the positive side, it should be noted that this conservative investment policy has largely shielded Nigeria’s NRF from the global financial melt-down and the large losses of many

SWFs. However, lower oil revenues combined with pressures to spend have resulted in sharp decline in the assets of Nigeria's excess crude account.

The governance of the crude account, however, leaves a great deal to be desired. The excess crude account lacks a clear governance structure, and the functions of management, oversight, internal and external audits, and reporting are not compatible with best practice. There is no dedicated web site and the balance of the account is not readily available to the public.

Going forward Nigeria can opt for a formal SWF with an appropriate governance structure with a higher potential return but also a higher risk vis a vis the current investment policy. Alternatively, Nigeria can strengthen the governance of the current framework of the "excess crude account" to make it consistent with best practice but keep its investment options limited to those of official international reserves of the CBN. These investment instruments, which consist of short-term treasury securities of the major economies, would yield low return but will not be subjected to high risk.

Adopting one of the two options should be preceded or accompanied by steps to strengthen the oil revenue management framework. This should include a buy-in by all states of the fiscal responsibility bill, and modification to the way the reference oil price is determined to include considerations of intergenerational equity and fiscal sustainability.

The next section discusses the legislative and institutional framework for the establishment of a SWF.

V. Legislative and Institutional Framework for the Establishment of A SWF in Nigeria.

Constitutional and Politico-economic Issues

SWFs could be employed by government as one of the leverages for shaping incentives towards fostering desirable expenditure paths, fiscal prudence, and transparency and accountability in the management of government revenues. However, the process must take full cognizance of the need for consensus building through multi-stakeholder consultations, to pave the way for the review of the existent expenditure patterns and broad ownership of the initiative. Such multi-stakeholder consultations should target core issues relating to the establishment of the SWF, such as those indicated below:

- Crafting an acceptable *Sovereign Wealth Fund management law*;
- Instituting an *independent oversight and monitoring mechanism* to ensure checks-and-balances and compliance with the SWF law, together with other relevant revenue laws in force; and,
- Giving the SWF law a *constitutional status* to protect it from amendment or override and political controversy from any individual arm or tier of government.

Nigeria is the world's eighth largest exporter of crude oil. Yet, as discussed above, the *Excess Crude Account*, which was created as a result of the oil-based fiscal rule established in 2004, is the nearest Nigeria came to managing the surplus revenues gained from oil exports during high price regimes, under a specialized arrangement with the

semblance of a SWF. The Excess Crude Account is however an administrative creation. . Expectedly, the creation and operation of the Excess Crude Account has continued to generate political controversy among the different tiers of government since it is being viewed as an administrative creation of the Federal Government that lacks Constitutional status and clear rules of operation.

In terms of legislation, the most direct law that has sought to entrench fiscal prudence, transparency and accountability in the management of government revenues in Nigeria including oil revenues is the FRA that was only recently passed by the National Assembly. The FRA stipulates, among other provisions, that any excess amount from crude oil sales beyond the budget reference price or benchmark price as determined by the prevailing circumstances of oil prices in the international market should be saved in a special purpose account (excess crude account). However, the scope of application of this law is limited and non-binding in absolute terms on other tiers of government due to the supremacy of the constitution over every other law.

The constitution of the Federal Republic of Nigeria provides that all revenues accruing to the country should be paid into the federation account and shared by the three tiers of government (according to a formula discussed above). To the extent that the 1999 Constitution provides that all revenues must be paid into the federation account and shared among the different tiers of government, the vent opens for the kind of controversies and political agitations currently being witnessed in the operation of the excess crude account. With the benefit of hindsight from the operation of the excess

crude account, there has to be a legislative enactment that confers full constitutional status, recognition and backing to the establishment of the SWF for Nigeria to successfully operate the SWF. Such constitutional enactments would diffuse any potential conflicts that could arise among the different tiers of the government on the creation and operation of the SWF, as well as establishing a well-defined mode of operation and accountability of the fund.

Institutional Framework

A sound institutional mechanism that has full independence to manage the investment operations of the SWF in an efficient and profitable manner is critical for success in the achievement of the overall objectives for setting up the SWF. Clear rules regarding the ownership and management structure, investment operations and asset allocations, as well as reporting and disclosure requirements must be instituted to guide the operations of the SWF. International best practice indicates that separate government investment outfits are usually established to run the investment operations of a SWF; and in most cases such government investment outfits are run as semi-autonomous units of the ministry of finance or, in some cases, by the central bank. With respect to the establishment of an institutional structure for the management and operation of SWF for Nigeria, *A Nigerian Investment Corporation (NIC)* could be created as a semi-autonomous, independent unit of the Federal Ministry of Finance to undertake the operational management responsibilities of the SWF. The NIC should have a Board of Directors that would have the Minister of Finance as Chairman, with other members of the Board drawn from relevant MDAs including the CBN, the National Planning

Commission, the Debt Management Office, the Public-Private-Partnership agency of government, Securities & Exchange Commission (SEC) and the Budget Office of the Federation (BOF), a representative of the State Governments (e.g., Chairman of the Governors Forum), as well as representatives of civil society and the private sector.

The Board should have the responsibility of reviewing the investments and asset allocation strategy of the Corporation on an annual basis. The allocation of assets among different asset classes could be made taking into consideration factors such as relative asset capitalization size, liquidity needs, growth vs. value, diversification of investment approach, degree of market development and geographical location. The Chairman of the Board should report to the President on the overall operations and progress of the SWF at fairly regular intervals or upon specific demand. An Executive Director should be appointed to head the Corporation and manage its day-to-day operations. The Executive Director should also act as Secretary to the Board, taking responsibility for implementing the Board's strategic policy decisions and reporting to the Board on a quarterly basis. An independent investment advisory council could also be set-up to review the investments and investment strategies, and make recommendations concerning investment policies and procedures, as well as advise on the form and content of annual reports and provide other advice as may be requested by the Board. Such an advisory council should typically include experts from the private sector.

Other aspects of the broad guidelines for the Corporation's operations could include the areas highlighted below:

Investment Objectives and Asset Allocations

The main objective of managing the SWF should be to maintain the safety of the principal while maximizing total return. The investment time horizon should be mainly long-term with due consideration given to short-term liquidity requirements; but the fund should invest overseas and not in the domestic economy. The SWF assets could be invested in a diversified portfolio including international equity and fixed income products, real assets, private equity, and other alternative investments traded in the international financial markets. The SWF could be required to invest in sovereign debt securities denominated in US dollars, euros and British pounds; that on the date of purchase have a minimum remaining maturity of 3 months and not exceeding 3 years. The issuers must have an AAA/Aaa long-term credit rating from reputable international rating agencies such as Moody's, Standard and Poor's, and Fitch. In addition, a significant share of the overseas portfolio investment could be outsourced to external fund managers that have sound knowledge of the international market conditions.

Funding details

The SWF would be funded from oil revenues above a threshold consistent with the fiscal rule and the budget law, as well from returns on investments of the fund. The precise nature of flows from and to the budget will depend on the nature of the SWF.

Disclosure Requirements

In terms of the disclosure requirements, there should be complete corporate management structure, effective internal controls and risk control systems, and

transparency within the normal commercial practicalities. The Corporation should be required to formulate and make public its investment strategy and its approach to managing risks; and to publish audited accounts annually, with an annual report covering performance and activities of the Corporation, the Board and the SWF prepared and tabled before the National Assembly for scrutiny every fiscal year. All domestic bank holdings by name and size, as well as all major foreign acquisitions must be disclosed; and an open tender process for external fund mandates should be adopted.

In sum, the aim of having in place strong institutional and legislative mechanisms for SWFs is to ensure transparency and accountability, as well as forestall the risks of political conflicts in the operation of the SWF. Although the corporate governance framework of the SWF reflects the Corporation as being under the ambit of the General Government Sector, the legislative provisions will guarantee that the corporation can exercise investment powers and responsibilities beyond those usually provided to regular MDAs without undue interference or distortions such as being directed to invest the funds in any assets, businesses or activities not specified under the law. Such independence and transparency would generally reduce the risk of politically motivated investments while protecting the capability of the SWF to pursue investment strategies with a long-term horizon. However, it has to be noted that here as in several other studies that SWFs cannot on their own remedy all the problems associated with revenue volatility (see for instance Delvin and Brummitt, 2008). Nevertheless the establishment of SWFs would provide a useful step forward in the overall effort to prudently manage Nigeria's oil revenues.

VI. Summary and Conclusions

The discussion on whether Nigeria should establish a SWF should be seen as an opportunity to strengthen Nigeria's oil revenue management in order to make it consistent with best practice. Experience with the excess crude account in Nigeria as well as with well-established SWFs elsewhere suggests that successful oil-based NRFs and SWFs tend to be underpinned by a sound oil revenue management framework.

Confronting the challenges of oil revenue management requires sound policies, strong institutions and a credible governance structure that ensures transparency and accountability. Nigeria has in recent years been more successful than at any time in its history in insulating the domestic economy from the volatility of oil prices and revenue. However, the current oil revenue management still suffers from weaknesses of both design and practice. Thus, consideration should be given to the following areas:

In selecting the reference oil price for the budget consideration should be given to fiscal sustainability and equity across generations. This would be done by preparing a budget in which non-oil primary balance is consistent with fiscal sustainability. The considerations of fiscal sustainability and equity should not come at the expense of macroeconomic stability objectives. In this regard, it is critically important to note the very low efficiency of government spending which should underline the need for containing pressures for increased public spending. To enhance the effectiveness of the fiscal rule efforts should continue to get buy-in by all states to the Fiscal Responsibility Act. Finally, the current governance structure of the excess crude account is lacking in

transparency and accountability, and as a minimum, these shortcomings should be addressed.

Going forward, Nigeria can opt for a formal SWF with an appropriate governance structure which would allow the fund to have a higher potential return but will expose it to a higher risk vis a vis the current investment policy. This paper has presented the institutional and legal and legislative steps, as well as actions to ensure a buy-in by civil society for the establishment of such a SWF.

Alternatively, Nigeria can strengthen the governance of the current framework of the “excess crude account” to make it consistent with best practice but keep its investment options limited to those of official international reserves of the CBN. These investment instruments, which consist of short-term treasury securities of the major economies, would yield low return but will not be subjected to high risk.

Overall, there is no clear a priori advantage to either option for Nigeria. What should be stressed is that the establishment of a sovereign wealth fund or the strengthening of the current structure could prove timely as this would both further reinforce the current oil revenue management framework and enhance the governance of its excess crude account in whichever form it may take.

Appendix I

1. ESTIMATES FOR OIL WEALTH AND SUSTAINABLE INCOME

I. At any particular point in time, the oil wealth is the sum of (i) the balance of the NRF and (ii) the net present value of expected future oil revenues accruing to the fund. The net wealth is calculated according to the following formula:

$$V_t = V_{t-1} + \sum_{j=0}^N \frac{R_{t+1}}{(1+r)^j} \quad (1)$$

where:

V_{t-1} is the balance of the NRF at the end of the prior fiscal year

R_t, R_{t+1}, ..., R_N are the projections for expected annual oil revenues accruing in the NRF for fiscal year t, t+1, ..., N.

r is the average discount rate.

N is the year after which oil resources will be exhausted (no oil receipts will be accruing to the NRF).

II. The sustainable income from oil wealth for any fiscal year is the amount that can be withdrawn from the oil NRF to the budget in that fiscal year, leaving sufficient resources in the NRF to be withdrawn in equal amounts in all later fiscal years. For any particular fiscal year, it is equal to:

$$Y_t^* = i \times \text{Petroleum wealth} = i \times V_t \quad (2)$$

where:

i is the estimated average real rate of return, or real interest rate, on the NRF's investments in the future.

2. Alternative indicators of sustainable oil consumption.

The sustainable consumption could be expressed in per capita terms or as a ratio of non-oil GDP. Such a policy would allocate fewer resources to the current and immediate generations than under equation (2).

If one were to consider intergenerational equity in terms of consumption per head, the optimal consumption of oil wealth would be given by:

$$Y_{ct}^* = (\mathbf{i}-\boldsymbol{\eta}) \times V_t \quad (3)$$

where $\boldsymbol{\eta}$ is the population growth rate.

One could also consider intergenerational equity based on equal consumption per non-oil GDP, to address somewhat the issue of unequal marginal consumption between generations. In this case, the optimal consumption of oil wealth would be:

$$Y_{n-ot}^* = (\mathbf{i}-\mathbf{g}) \times V_t \quad (4)$$

where \mathbf{g} is the expected non-oil GDP growth rate.

Clearly, for reasonable values of the yield on NRF's investment (\mathbf{i}), long-term population growth ($\boldsymbol{\eta}$) and long-term non-oil GDP growth (\mathbf{g}), the level of consumption suggested by equation (2) is much higher than the level under alternative allocations suggested by equations (3) and (4).

Appendix II

Sovereign Wealth Funds: Country Models

The different countries operating SWFs have adopted various models for the organizational set-up, management, investment processes and disclosure procedures for their SWFs. An attempt is made in what follows to review the histories, institutional structure and conduct or management of some of the major SWFs, representing both developed and developing nations, as well as countries with commodity-based and non-commodity-based SWFs. The countries considered include oil producing countries: Kuwait, Norway, Russia, Libya, Algeria and Alaska (USA); and non-oil exporting countries: Singapore, Australia and China. Countries contemplating setting-up SWFs – Brazil, India and Japan are also highlighted. Some of the information presented hereunder was adapted JPMorgan Research publication of May 22, 2008 on SWFs.

Table 1
Estimated Size of Largest Sovereign Wealth Funds

S/N	Country	Fund Name	Assets (US\$bn)	Inception Year	Source of Funds
1.	UAE	Abu Dhabi Inv. Authority	875	1976	Oil
2.	Norway	Govt. Pension Fund	380	1996	Oil
3.	Singapore	Govt. Investment Corp.	330	1981	Non-
4.	Saudi Arabia	Saudi Arabian Funds (various)	300	n.a	commodity
5.	Kuwait	Kuwait Inv. Authority	250	1953	Oil
6.	China	China Investment Corp.	200	2007	Oil
7.	Singapore	Temarek Holdings	159.2	1974	Non-
8.	Russia	Stabilization Fund	127	2004	commodity
9.	Australia	Future Fund	54	2006	Non-
10.	Qatar	Qatar Investment Authority	50	2005	commodity
11.	Libya	Oil Reserve Fund	50	2005	Oil
12.	Algeria	Revenue Regulation Fund	42.6	2000	Non-
13.	US (Alaska)	Permanent Fund Corp.	38	1976	commodity
14.	Brunei	Brunei Gen. Reserve Fund	30	1983	Oil
15.	South Korea	Korea Investment Corp.	20	2005	Oil
16.	Korea	Khazanah National	18	1993	Oil
17.	Malaysia	Kazakhstan National Fund	18	2000	Oil
18.	Kazakhstan	Alberta Heritage Fund	16	1976	Oil
19.	Canada	National Stabilization Fund	15.2	n.a	Non-
20.	Taiwan	National Development Fund	15	2005	commodity
21.	Venezuela	Oil Stabilization Fund	13	1999	Non-
22.	Iran	Superannuation Fund	11	2001	commodity
23.	Iran	Superannuation Fund	9.8	2006	Oil
24.	New Zealand	Economic & Social Stab. Fund	8	2003	Oil
25.	Chile	Istithmar	6	n.a	Non-
26.	UAE	State General RF	6	2004	commodity
27.	UAE	State General RF	6	1980	Oil

28.	Oman	Dubai International Capital	1.4	2006	Oil
	UAE	Unknown			Non-
	Bahrain	Pension Reserve Fund			commodity
	Chile				Copper
					Oil
					Copper
Total			3049.2		

Source: Morgan Stanley, Standard Chartered, 2008

Kuwait – the Kuwait Investment Authority (KIA)

The Kuwait Investment Authority (KIA) was established in 1982, with a mission to achieve a long-term return on the country's reserves for purposes of inter-generational wealth transfer. It is responsible for the management and administration of the General Reserve Fund (GRF), the Future Generations Fund (FGF), as well as any other funds entrusted to it by the Government. The GRF functions like a stabilization fund, and receives all state revenues (including all oil revenues) with state expenditures paid from the Fund. The GRF also holds all government assets including public enterprises and participation in international organizations. The FGF was initially created by transferring 50% from the GRF in 1976. Since then, 10% of state revenues are transferred to the FGF annually. No assets can be withdrawn from the FGF unless approved by law. The FGF accounts for about 80% of KIA's assets. KIA is an independent legal entity operating under the Ministry of Finance. The *management structure* includes a *Board of Directors*: consists of 4 Ex-officio members (the Minister of Finance, who is the Chairman of the Board, the Minister of Energy, the Governor of the Central Bank of Kuwait and the Undersecretary of the Ministry of Finance) and 5 other members, representing the private sector, who are appointed by the Council of Ministers; and an *Executive Committee*: consisting of 5 Board members, of whom at least 3 are private sector appointees, formed from the Board. A Managing Director heads the Committee. The primary role is to assist the Board of Directors in setting strategic goals and objectives. By way of *disclosure procedure*, KIA makes annual closed door presentations on full details of all funds under its management to the Council of Ministers as well as to the National Assembly. More recently, KIA started to report publicly once a year on the size of its assets and performance. KIA's website also provides information on its mandate, structure, governance, and investment process.

In terms of *investments and operations*, the majority of KIA's assets are managed by external managers, with a smaller portion of the investment managed by the Kuwait

Investment Office (KIO) - a London-based subsidiary of KIA. The KIO is a global investor, with investments in all main geographical areas, which are managed by portfolio managers on an active basis. It is a long-term investor and the in house investment management team covers equities, fixed income, treasury, private equity and property. KIA's investment strategy is to achieve a rate of return on its investments that, on a 3-year rolling average, exceeds the composite of all its portfolio benchmarks. Each of the various asset classes has its own benchmark and objectives. KIA's asset allocation process is based on World GDP contributions with mandates given for each asset class and geography. KIA does not reveal its asset allocation, but more than 50% of its assets are believed to be in public equity. The fixed income share is about a third and the remainder is in alternatives. Its *major investments* include the invested US\$2 billion in Merrill Lynch in January 2008. The investment was in the form of a convertible bond with a 9% coupon and a conversion into common stock within 33 months. KIA also invested US\$3 billion in Citigroup's 9% convertible preferred securities in the same month. The KIA further has a 7.2% stake in Daimler and a long-term investment in British Petroleum. It is estimated that the value of total assets owned by KIA may have reached US\$250 billion by end-December 2007 (JPMorgan Research, May 2008).

Norway – Government Pension Fund

The Norwegian Government Pension Fund was established in 2005 as a continuation of the former Petroleum Fund that was created in 1990. The Fund comprises of the Government Pension Fund – Global (GPF – Global, previously the Government Petroleum Fund) and the Government Pension Fund – Norway (GPF – Norway, previously the National Insurance Scheme Fund). The purpose of the Government Pension Fund – Global is to support government savings to fund public pension expenditures and to promote long-term considerations in the application of government petroleum revenues. The Government Pension Fund – Global has three sources of income: the return on the Fund's assets; the cash flow from petroleum activities that is transferred from the central government budget; and net financial transactions associated with petroleum activities. The return on the Pension Fund is added to the fund's capital, and there are currently no transfers from this fund to the state budget. The total fund size of the GPF – Global was US\$373bn at the end of 2007, and the GPF – Norway had an additional US\$20bn (JPMorgan Research, 2008).

In terms of the *institutional structure* - the Norwegian Ministry of Finance has ownership and responsibility for the management of the Fund. It sets the strategic asset allocation and investment guidelines, but has delegated responsibility for the operational management of the Government Pension Fund – Global to Norges Bank Investment Management (NBIM) which is a separate part of the Norwegian Central Bank (Norges Bank). Responsibility for the operational management of the Government Pension Fund – Norway is delegated to Folketrygdfondet, a government entity specifically designed to manage this Fund. While Folketrygdfondet, the government body responsible for managing the Government Pension Fund – Norway, is headed by a Board of Directors; the NBIM equally has its own management headed by a CEO. The *disclosures procedure* sees the Norges Bank reporting results for the Government Pension Fund – Global on a

quarterly basis; with the auditing of the Fund is assigned to the Office of the Auditor General, which bases its audit on the work performed by the Central Bank Audit.

The *investment objective* of the Fund is to generate high return subject to moderate risk in order to contribute to safeguarding the basis of future welfare. The Fund's performance is measured relative to the Benchmark Portfolio. In the *investment process* for the Government Pension Fund –Global, NBIM uses both internal and external managers. At the end of 2007, the Fund had 25 external equity managers and 22 external fixed income managers. The broad strategy and framework determines the distribution of investments among various asset classes, such as bonds and equities, and the distribution by country. The management strategy for the investment portfolio has two main components consisting of the long-term strategy, which is reflected in the benchmark portfolio, and the active management of the Fund. In terms of *asset allocation*, the Ministry of Finance defined a benchmark portfolio which consists of specific equities and fixed income instruments. The GPF - Global is invested in non-Norwegian financial instruments (bonds, equities, money market instruments and derivatives), spread over 42 developed and emerging equity markets and 31 fixed-income markets. In the past, the broad asset allocation was 60% fixed income and 40% equities. In 2007, it was decided to include a small-cap segment in the benchmark portfolio for equities, and to increase the equity portion of the benchmark portfolio from 40% to 60% (JPMorgan Research, 2008).

Russia – The Oil & Gas Fund (OGF)

The Oil & Gas Fund (OGF), formerly called the Stabilization Fund, was established on January 1, 2004. Its creation was meant to serve the objective of keeping the federal budget in balance at times when the oil price falls below a cut-off price; as well as serving as a tool for absorbing excessive liquidity, reducing inflationary pressure, and insulating the economy from volatility of raw material export earnings. In February 2008, the OGF was divided into two parts: the Reserve Fund (\$125bn), which will be invested in a similar way as the original Stabilization Fund; and the National Prosperity Fund (NPF, \$32bn) which is to be invested into more risky instruments, including the shares of foreign companies. The Finance Ministry planned that the NPF should purely be a portfolio investor, and should not buy strategic packages of shares. The NPF will have the rest of the amount of funds in the Oil & Gas Fund after appropriating to the Reserve Fund. The size of the Reserve Fund is to be kept at about 10% of GDP.

In respect of the *funding details* for the fund: originally, the OGF accumulated funds as long as the price for Russia's Urals oil exceeded a certain cut-off price. The OGF was to be tapped for covering federal budget deficits when the price of oil fell below the cut-off price. The OGF collected revenues from a portion of the export duty on crude oil and a portion of the mineral resources extraction tax on oil. Both refer only to that part of the tax that stems from the price in excess of the cut-off price. In addition, parts of the federal budget surpluses were transferred to the OGF. Starting from 2008, the mechanism of OGF funding changed. Now, the OGF accumulates funds from all oil and gas related taxes, after a certain portion of these revenues have been transferred to the

federal budget to finance recurrent expenditures (the “oil transfer” has been set at 6.1% of GDP for 2008, 5.3% for 2009, 4.5% in 2010 and 3.7% thereafter). Therefore, under this new mechanism, the OGF receives all oil and gas related revenues above a certain threshold set as percent of GDP, effective from 2008. The Reserve Fund will be used to bolster tax revenue if oil prices fall dramatically, and otherwise it will be maintained at 10% of GDP. The NPF will be used to cover spending on social items such as Pension Fund deficits, mostly drawing on its earnings.

The ***institutional structure***: The Fund is owned by the Russian Government and is administered by the Ministry of Finance; and in terms of ***disclosure rules***, the Ministry of Finance publishes a monthly report on the Fund’s accumulation, spending and balance. The Ministry of Finance reports to the Government on accumulation, investment and spending of the capital of the Fund both on a quarterly and annual basis. Asset allocation norms and investment guidelines are also published. **Investments and operations**: the assets of the Fund are to be invested in foreign sovereign debt securities, and the eligibility of the securities is subject to the Government’s approval. The Ministry of Finance is empowered to establish the Fund's currency composition and its strategic asset allocation, in line with the investment policy. For purposes of investment, the funds are allocated to the Federal Treasury’s accounts with the Bank of Russia in foreign currency with the total return based on indices composed of eligible foreign debt securities and defined by the Ministry of Finance. The Bank of Russia currently performs all investment operations, but the Fund is allowed to use other external managers going forward. **Asset Allocation**: the Fund can invest in sovereign debt securities of Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, the United Kingdom, and the USA, denominated in US Dollars, Euros and British Pounds. Issuers must have an AAA/Aaa long-term credit rating from at least two of the following three rating agencies: Moody’s, Standard and Poor’s, and Fitch. Funds can only be invested in debt securities on the date of purchase with a minimum remaining maturity of 0.25 years and not exceeding 3 years. The currency allocation is 45% US dollar, 45% Euro, and 10% Pound. The NFP is expected to be authorized to extend its investments to public equity, which it plans to do with the help of external managers. 1 As of January 30, 2008; Source: Ministry of Finance, Russia website

Libya – The Libyan Investment Authority

The Libyan Investment Authority (LIA) was set up in mid-2007 through a funds allocation from the Libyan Central Bank, as well as the merger of other state funds, including the Libyan Arab Investment Company (LAFICO). The Libyan government states that its strategy is to reduce the country’s oil dependence and diversify its sources of income. The Authority is headed by an Executive Director. Initial funds were allocated from the Central Bank of Libya as well as other state funds with the Authority getting a portion of the surplus oil revenues each year going forward. In terms of the ***disclosure***, the Authority does not give out any financials or investment policy reports, though investment guidelines can be gauged from various press releases made by the management. Regarding the ***investment process***, the Authority has offices in London and Tripoli, and its plans are laid out in broad stages, with the first stage being to concentrate on portfolio investments managed through foreign banks and asset managers. The

management states that the intentions of the fund are purely commercial and it holds investments in hydrocarbon development projects and is partnering with BP in a US\$900m exploration contract. The Authority also indicated the intention to buy real estate worldwide and look into investing in private equity transactions as it becomes more established.

Algeria – The Revenue Regulation Fund (FRR)

The Revenue Regulation Fund (FRR) was set up in 2000 as an (off-budget) hydrocarbon stabilization fund to reconstitute the cushion of external reserves that had been used in 1998-99 during a period of low hydrocarbon revenues, to service the stock of public debt and to smooth the longer-term profile of expenditures. This Fund was originally intended to pay off the principal portion of the public debt and to finance a budget deficit. The hydrocarbon stabilization fund does not have intergenerational transfer purposes. The law states a two-fold objective of the Fund: to finance the budget deficit in case of lower-than-budgeted hydrocarbon revenues and reduce the outstanding national debt. In the 2006 supplementary budget, the rules of the hydrocarbon stabilization fund were amended only to allow for the direct financing of the non-hydrocarbon deficit (unless the balance of the FRR drops below US\$10bn). The Fund is managed by the Central Bank. In terms of the *funding details*, it is provided that all hydrocarbon revenues in excess of those budgeted are deposited into the stabilization fund. In the 2004 draft budget, the law stated that the amount of money that can be drawn from the fund is limited to the shortfall in hydrocarbon revenues resulting when realized hydrocarbon prices are lower than those projected in the budget law. Its *disclosure rules* are not well-developed, as the Fund does not give out any information on its financial balances or investment policy.

Alaska (USA) – The Alaskan Permanent Fund

The Alaska Permanent Fund was set up in 1976 for purposes of intergenerational wealth transfer and equity for all Alaskans. Its objective is to maintain the safety of the principal while maximizing total return. The Fund is made up of the reserved fund (the principal) which is invested permanently and cannot be spent without amending the state constitution through a majority vote of the people and the unreserved fund (the realized income). Any decisions to use the unreserved portion are made each year by the Alaska State Legislature and the Governor. Regarding its *funding details*, at least 25% of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received are placed in the Fund. Other amounts can also be placed in the Fund by the state. The fund is owned by the state of Alaska and is operated as a public trust under the *management* Alaska Permanent Fund Corporation (APFC) headed by a CEO. The APFC manages and invests the assets of the Fund. It also has a *Board of Trustees* consisting of six trustees appointed by the governor. The six APFC Board trustees are comprised of four public members, the Commissioner of Revenue and one additional cabinet member of the governor's choosing. Public members serve staggered four-year terms. The six trustees set the APFC policy. By way of observing the *disclosure requirements*, the fund publishes an annual report for the 12 months ending in June as well as a monthly fund performance & financial report.

Regarding its *investments process* and *operations*, the Board reviews the investments and asset allocation on an annual basis, with the review conducted by the APAC investment staff along with an external consultant. The asset allocation is equity-dominant along with other assets with varying risk and return. Further asset allocation among asset classes are also made depending on factors such as relative asset capitalization size, liquidity needs, growth vs. value, diversification of investment approach, degree of market development and geographical location. An independent three-person investment advisory council has been set-up to review the investments made, make recommendations concerning investment policies, investment strategy, and investment procedures and advise on the selection of performance consultants and on the form and content of annual reports and provide other advice as requested by the Board. The Fund hires a pool of investment consultants for general advice or asset/strategy specific areas to help with the investment decisions. Apart from APFC investment staff, the Fund hires specialized external investment managers to make investments with each manager evaluated on the basis of benchmarks assigned to each one.

The long-term investment goal for the Fund is to achieve a real rate of return of 5% per year. The planned asset allocation is considered important in the context of achieving the target return as it is estimated that up to 90% of all investment returns are attributable to asset allocation. **Asset Allocation:** the asset types the Fund currently holds are publicly traded stocks, private equities, bonds, real estate and absolute return strategies. In 2007, the Board added an allocation to infrastructure investments and adjusted the stock investments to include a specific allocation to a global stock strategy, in recognition that global markets are becoming more linked to one another. 1 As of February 29, 2008; Source: Alaska Permanent Fund Corporation website (Monthly report).

Singapore - Temasek Holdings, Government of Singapore Investment Corporation

The Singaporean Government has two SWFs - *Temasek Holdings* and the *Government of Singapore Investment Corporation* (GIC). Both SWFs have a mandate to manage Singapore's government savings as well as to nurture domestic industries identified as being of strategic importance through their asset allocation approaches.

i) Temasek Holdings

Temasek Holdings was established in 1974 with a view to better manage investments and assets previously held by the Singapore Ministry of Finance. The fund is accountable to the Singaporean Government for its overall performance. While investment decisions are the responsibility of Temasek management, the Government's, as the only shareholder plays the role of ensuring that a competent board is put in place (Temasek Holdings 2007). Temasek manages a portfolio of more than US\$100 billion and the majority of Temasek's assets are located in Asia, (about 80 per cent of the fund's total portfolio value); approximately half of that portfolio is invested within the Singaporean domestic market. Temasek adopts a long-term approach to investment, with a focus on both listed and private equity, and real estate investments, and has a controlling interest in a significant number of the companies in which it holds investments (Temasek Holdings 2007). In addition to maximising returns to its shareholder, Temasek's investment

strategy has also focused on developing expertise in particular domestic industries. For instance, about 60 per cent of Temasek's investments are in the financial and communication sectors, reflecting the Singaporean Government's aim to enhance Singapore's role as a regional financial centre (Temasek Holdings 2007). The fund reported an annual average return of around 18 per cent over the past decade (Temasek Holdings 2007).

ii) The Government of Singapore Investment Corporation

The GIC was established in 1981 to maintain the purchasing power of Singapore's substantial foreign exchange reserves. It manages a portfolio estimated at more than US\$100 billion, with the majority of the portfolio allocated to equities and fixed income assets. A small share is allocated to private equity, real estate and commodities. Its investments have averaged a 9.5 per cent annual average return over the past 25 years (GIC 2007). Unlike Temasek, which holds substantial domestic assets, a large proportion of the GIC portfolio is invested in US and European markets. More recently, the GIC has indicated it will begin to shift its focus to emerging markets (Lee and Chua 2006). In addition to managing foreign exchange reserves, the GIC aims to further entrench Singapore as the major financial centre in South East Asia. The Singaporean Government has used the GIC as a vehicle for developing Singapore's funds management industry since the early 1990's and has increasingly placed GIC funds under private management (Delvin and Brummitt, 2008; Lee and Chua 2006).

Australia - Australia's Future Fund

Established in April 2006, the Future Fund is a dedicated asset fund that aims to offset the largest liability on the Australian Government's balance sheet — unfunded public sector superannuation. The Future Fund's investment mandate provides a mechanism for the Government to articulate its expectations for returns on the Fund and its tolerance for risks. Under the investment mandate the Board is directed to:

- ✚ seek long-term real returns of at least 4.5 per cent to 5.5 per cent and minimise the probability of losses subject to achieving at least this benchmark;
- ✚ establish an internal limit on holdings of any listed company in order to ensure that it does not trigger the takeover provisions under the *Corporations Act 2001* or hold a stake of more than 20 per cent in any foreign listed company;
- ✚ act in a manner that minimises the potential to cause any abnormal change in the volatility or efficient operation of Australian financial markets or adversely affect the Government's reputation in these markets; and
- ✚ Have regard to international best practice for institutional investment in determining its approach to corporate governance principles.

The Board is supported in its functions by the Future Fund Management Agency which acts on the investment directions of the Board. The Government has retained the right to direct the Board by changing the investment mandate. However, there are strong protections against the misuse of this power — if the Board considers that the new mandate is inconsistent with the basic objectives of the Fund it has the right to table a submission to Parliament opposing the change. This transparency is aimed at reducing the risk of politically motivated investments while protecting the capability of the Fund to

pursue investment strategies with a long-term horizon. New legislative provisions have also been passed which prohibit the Government issuing directions which require the Fund to invest in specific assets, businesses or activities. The corporate governance framework of the Future Fund reflects the Board being part of the General Government Sector but also having investment powers and responsibilities beyond those usually provided to departments of state. As such, under the Future Fund legislation, the Board is subject to requirements based on both the *Financial Management and Accountability Act 1997* and *Commonwealth Authorities and Companies Act 1997*. The operations of the Fund, Board and Agency are subject to the reporting and audit requirements of the FMA Act. The Australian National Audit Office is responsible for auditing the financial statements relating to the Fund. An annual report covering the performance and activities of the Board, Agency and Fund (including financial statements) is required to be prepared and tabled in Parliament and the Board is required to attend senate estimates hearings. The Board is also required to formulate and make public its investment strategy and its approach to managing risks (Delvin and Brummitt, 2008).

China – China Investment Corporation (CIC)

Established in September 2007, China Investment Corporation (CIC) was mandated to manage part of China's foreign exchange reserves, starting with the size of US\$200 billion, with the objectives to invest in overseas financial assets in order to diversify and improve investment returns; to help with further banking sector reform and stability of the domestic financial system through capital injections and to improve corporate governance of the state-owned financial institutions; as well as to foster overseas acquisitions in strategic sectors such as energy, resources and commodities. CIC is *funded* by the Government, which issued RMB1.55 trillion of special treasury bonds and used the proceeds to buy foreign reserves from the central bank as well as its holdings of state bank shares. CIC is expected to produce a return that exceeds the government annual interest cost of the special treasury bonds. Over time and depending on CIC's performance, the Government is expected to increase CIC's assets by issuing more special treasury bonds and using the proceeds to buy more foreign reserves from the central bank.

The CIC is fully-owned by the Government, ultimately reporting to the State Council. The Government of China has maintained that the CIC operates on pure commercial principles despite its government background. The CIC is given full authority to make independent investment decisions, and government interferences will be reduced to the absolute minimum. Within its **management structure**, there are seven Executive directors, five non-executive director, and two independent directors on the CIC Board of Directors, consisting of senior officials from the People's Bank of China (PBoC), the Ministry of Finance (MoF), the National Development and Reform Commission (NDRC), the Ministry of Commerce, and the State Administration of Foreign Exchange (SAFE). Lou Jiwei, a deputy secretary general of China's State Council, serves as Chairman of the CIC, directly reporting to the Prime Minister. Lou is part of a seven-person Executive Committee that is responsible for managing CIC's investment decisions and regular operations. The other high-profile committee member is Gao Xiqing, the deputy head of the National Social Security Fund. The rest of the

executive committee includes senior officials from the China Banking Regulatory Commission, the MoF, the NDRC, and the Central Huijin. In terms of the **disclosure requirements**, the CIC maintains that it has a complete corporate management structure, effective internal controls and risk control systems, and will increase transparency within the normal commercial practicalities. It has reported on the overall fund size, its funding sources as well as the broad split between overseas assets and domestic bank assets. Specifically, CIC has revealed all its domestic bank holdings by name and size as well as its major foreign acquisitions. It also runs an open tender process for its external fund mandates.

In relation to its *investments processes* and *operations*, not many details have been released regarding the CIC's investment process, though it is understood to have been closely modeled on Singapore's GIC and Temasek Holdings. The CIC has recently suggested that, out of the \$200 billion funds under its management, up to \$90 billion could be invested in overseas financial assets, with a diversified portfolio including international equity and fixed income products, real assets, private equity, and other alternative investments. Note that the original intention was to invest \$66 billion in offshore investments, but this was raised after it became clear that fewer funds than expected would be needed for investments in domestic financial institutions. Indeed, the other significant portion of CIC's assets will be invested in domestic financial institutions, including taking over the central bank's equity stakes in the Bank of China, the China Construction Bank, the Industrial and Commercial Bank of China, and the Bank of Communications. The CIC's investment time horizon is mainly for long-term investment, with consideration of liquidity requirements. For the global portfolio, the investment style will be largely passive in the initial stage. Besides, a significant share of the overseas portfolio investment is expected to be outsourced to external managers. Some of the Fund's major investments include US\$3bn pre-IPO investment for a 10% stake in Blackstone in May 2007, which was prior to its official launch. On December 19, 2007 CIC had invested US\$5bn in Morgan Stanley (MS) in the form of mandatory convertible equity units, which would represent a 9.9% stake in MS. In February 2008, it was reported that CIC was setting up a US\$4 billion private equity fund with JC Flowers (in which CIC will have about 80% share) to invest in ailing financial institutions. Other significant investments by the CIC included US\$100 million IPO investment in China Railway Group and US\$100 million IPO investment in VISA.

Other poorer, developing countries have equally attempted to put in place revenue management systems that are either closely related to SWFs or tagged as such. For instance, Chad's Revenue Management Plan is intended to better manage the country's petroleum revenues with a goal of increasing spending on poverty relief (but Chad is enmeshed in long-standing political dispute); Uganda's Poverty Action Fund channels savings from debt relief into services for poor communities in Uganda; and Papua New Guinea's Mineral Resources Stabilization Fund was closed in 2001.

Countries Contemplating SWFs

Aside from the countries that already own SWFs including those discussed above, some new big player countries contemplating setting up SWFs. Brazil, India and Japan are considered for brief discussion in this instance as follows:

Brazil:

The first discussions about international reserves diversification in Brazil started in 2006, when the public sector became a net USD-creditor on the back of a huge reserves building strategy, coupled with a sovereign external debt buyback program. Since then, further BRL appreciation (amid further reserves accumulation), the discovery of gigantic oil reserves in Brazil's deep waters, and the achievement of Investment Grade rating by S&P prompted authorities to think about creating a SWF. On May 14, 2008, Minister of Finance Mantega indicated that a bill will be sent to Congress in the coming weeks to create an SWF for Brazil. The formal objective is to support the internationalization of Brazilian companies, and strategic projects abroad, but the creation of a mechanism to step up fx interventions could be considered also in line with government's priorities.

Funding details: in the press conference, Minister Mantega said that the SWF would be funded through the excess of the primary budget surplus over the 3.8% of GDP target. Note that currently, Brazil's primary surplus is running at 4.5% of GDP, but it still runs a nominal deficit (including interest payments) of 1.6% of GDP. This means that although the excess of primary surplus will determine the amount of resources being transferred to the fund, the existence of nominal fiscal deficits places Brazil into the "borrowed wealth" definition. Indeed, the primary fiscal resources to be transferred to the fund will have to be, at the end, financed by issuing government bonds. It was also mentioned that part of the funding in the future could be raised from a tax on future oil production that is expected to come from recently discovered reserves. **Ownership and governance:** The Ministry of Finance intends to own Brazil's SWF, but the operational management responsibilities are not clear yet. **Management structure:** A Deliberative Committee will be created to define instruments, terms, and nature of the investments. **Investments and operations:** Indications are that most of the new SWFs funds would be allocated to purchasing securities from a new external subsidiary of BNDES (Brazil's Development Bank) that will be created to finance the internationalization of Brazilian companies.

India:

Foreign exchange reserves held by the Reserve Bank of India (RBI) have risen from \$27bn in 1998 to \$300bn currently. There are several arguments put forward in India for the creation of an SWF: First, as is the case in other Asian countries, this rapid reserve accumulation has led to calls to achieve higher returns on the foreign exchange reserves held by the RBI. Second, there is also a view that a SWF can play a vital role in securing India's future energy needs, and can also play a constructive and complementary role in the broader geo-political and economic strategy of the country. Third, a SWF could parcel out funds that would boost the local fund management industry investing in overseas markets. The key concerns about an Indian SWF are: i) The country runs fiscal deficits; ii) India current account deficit has been more than covered by surging capital

inflows in recent years, but this trend may not be sustained. In a way, India already has created a quasi-SWF by setting up of a special purpose vehicle that will use a small portion of the foreign exchange reserves to aid infrastructure projects. At this stage, the policy discussion over an Indian SWF is not very advanced, and with elections due by next year, the idea at this point seems unlikely to make significant headway anytime soon.

Japan:

More remote is the possibility of Japan following in the footsteps of other large Asian countries, like China and Korea. Japan's foreign currency reserves are substantial at close to one trillion dollars and are invested in a very conservative way, largely in US Treasuries. Clearly there is room to invest at least some portion of these reserves into higher-yielding assets. Within Japan, the idea of a setting up an SWF is strongly opposed by the Ministry of Finance, which sees issues of international relations with the US as of higher importance than increasing financial return by diversifying away from USD investments.

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