Papua New Guinea

DEPARTMENT OF TREASURY AND BANK OF PAPUA NEW GUINEA JOINT SOVEREIGN WEALTH FUND WORKING GROUP

DISCUSSION PAPER

POSSIBLE CREATION OF A SOVEREIGN WEALTH FUND

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JOINT WORKING GROUP DISCUSSION PAPER

The development of the Papua New Guinea Liquefied Natural Gas (PNG LNG) project, and the prospect of others, has the potential to transform PNG's economy and substantially improve the standard of living of all Papua New Guineans.

In light of the substantial future revenues arising from LNG, it will be important that PNG has robust, transparent and effective arrangements in place to manage this revenue.

In March 2010, the National Executive Council (NEC) established a joint Department of Treasury-Bank of Papua New Guinea Working Group to:

a. Assess the appropriateness of the current framework;
b. Seek feedback from international institutions (including the IMF, World Bank and ADB) and other appropriate Governments;
c. Canvass possible options for Government consideration, including the possible creation of an offshore fund to manage windfall revenues arising from the PNG LNG project; and
d. Report back to NEC by 30 June 2010.

In undertaking this work, the Working Group is consulting with, and seeking input from, PNG Government agencies and relevant domestic and international stakeholders.

As part of this process, the Working Group has prepared this discussion paper to canvass key issues, reflect initial consultations with priority domestic stakeholders and identify issues requiring further examination.

In considering these issues, the Working Group has been guided by international best practice, the Sovereign Wealth Fund Generally Accepted Principles and Practices (Santiago Principles), the Prime Minister's Parliamentary Statement on Financial Close for the PNG LNG Project, the Long Term Development Strategy and Papua New Guinea Vision 2050.

The paper is structured broadly around two central themes – economic matters and design issues, with discussion drawn from the Working Group's consideration of these issues.

SECTION 1 - ECONOMIC MATTERS

1.1 Introduction

As a small, commodity exporting, resource rich, developing country, the PNG economy is likely to be significantly impacted by the emergence of a new resource sector through LNG production.

This presents an opportunity to significantly advance and develop PNG. However, it is possible that the emergence of LNG as a major revenue source may give rise to major macroeconomic pressures such as Dutch disease, which are more likely to be prevalent when a country relies heavily on revenues from commodity exports.

Past experience from the emergence of new resource sectors and earlier commodity booms indicates that the country has not successfully translated these revenues into improved socio-economic indicators to the extent that might be expected. Given the opportunities and economic challenges that the emergence of the LNG sector presents, it is important to have in place a robust fiscal framework to support the management of windfall revenues that is necessary to underpin social and economic development in the country.

Some of the key macroeconomic policy issues that have been considered by the Working Group are:

- Revenues are likely to remain volatile, uncertain and exhaustible; and even though LNG prices are determined through very long-term contracts, they remain linked to oil prices.
  - Commodity cycle induced volatility.
  - Demand pressures on inflation and the exchange rate – the absorptive capacity of the economy.
- Currency appreciation / Dutch disease and the impact of the currency on inflation.
- Monetary policy, including:
  - The operation of monetary policy.
  - Domestic liquidity, the cost of monetary policy and management of BPNG's balance sheet.
- Fiscal policy, including:
  - The operation and control of fiscal policy.
  - The absorptive capacity of the PNG economy.

1.2 PNG's past experience and existing arrangements

In light of the very large revenues expected from the PNG LNG project, a key consideration for the Government is whether current arrangements remain appropriate, or whether alternative arrangements to strengthen the fiscal framework should be considered.

In reviewing this topic, key considerations are drawn from PNG's past experience from the recent use of trust accounts and with the previous operation of the Mineral Resource Stabilization Fund (MRSF) from 1974 to 2001. A feature common to both is that they are examples of the onshore management of windfall revenues.

Mineral Resources Stabilization Fund

MRSF was established by legislation in 1974 as a stabilization fund. The fund was domestically held and invested, with the maximum drawdowns that the Government could make subject to discretionary rules which changed over time.

The effectiveness of the MRSF was mixed. A key limitation of the MRSF was that its funds were invested onshore rather than offshore. There was a high opportunity cost associated with this approach – through low domestic interest earned and limited scope of growing the value of the fund in a small financial market. Other deficiencies included weak governance arrangements and the poor integration with the Budget and operation of fiscal policy.

In 1999 a decision was made to drawdown the entire remaining balance of the fund to retire about a quarter of the Government's short-term domestic debt. The MRSF was subsequently closed.

Trust Accounts

It is apparent that despite the relative success of the trust accounts (essentially an onshore SWF) as a mechanism to save windfall revenues that arose during the recent commodity price boom period; there were some significant limitations to this approach.

These limitations of domestic trust accounts relate to:

- <u>Inefficient management arrangements</u>. Over recent years, the majority of trust account funds have been held in domestic commercial banks at a very low nominal interest rate. While it was intended that trust account balances be transferred to the Central Bank (Bank of Papua New Guinea - BPNG) on a relatively higher nominal interest rate, this did not occur as planned. This resulted in BPNG having to manage excess liquidity in PNG's small financial sector by issuing Central Bank Bills (CBBs) to commercial banks and other financial institutions at significantly higher interest rates than being earned by trust accounts.

  While this has expanded the domestic debt market, it made the operation of monetary policy much more difficult and expensive. This reduced BPNG's profitability, with dividends budgeted to be paid by BPNG to the Government not being forthcoming.

  The overall impact of this is that BPNG's balance sheet has expanded rapidly in recent years, which it is now much more difficult to manage. Any appreciation of the exchange rate led to foreign reserves being revalued lower in Kina terms, resulting in unrealised losses and eroded BPNG's capital.

- Lack of flexibility. The allocation of funds to trust account for specific purposes limits the flexibility of the Government to use those funds to fund priority investments that emerged later. In addition, controlling actual Government spending through both the budget and from trust funds has made the operation of fiscal policy much more difficult to manage.

- Poor transparency, accountability and governance arrangements. The poor and inconsistent management and reporting of trust fund transactions in recent years suggests there is significant scope to improve transparency, accountability and governance of LNG revenues to effectively manage public resources consistent with international best practice.

In light of these experiences with domestically held funds, a single offshore SWF may be a preferable alternative. This is especially the case as LNG revenues are expected to be much higher than the flow of funds at the height of both the recent and past commodity price booms. The implications for PNG's exchange rate, the cost and difficulty of operating monetary policy (including managing BPNG's balance sheet) and maintaining fiscal and macroeconomic stability will all be much more difficult than they have been.

1.3 Economic considerations

One of the most fundamental economic issues for Government to consider is whether the fund should be an offshore or onshore entity. In considering this, the Working Group is conscious of PNG's development needs and the desirability of using LNG revenues in a manner that promotes macroeconomic stability while underpinning PNG's Long Term Development Strategy and socio-economic objectives.

A major issue associated with onshore funds, as experienced with the MRSF and trust funds, is that they are all held in domestic currency. This has major ramifications for the exchange rate and the cost and difficulty of operating monetary policy. In addition, the delinking of actual Government spending from budget processes has weakened fiscal policy control, which tends to cause a range of serious macroeconomic pressures. The ability of any onshore fund as an effective policy tool to manage or mitigate these important macroeconomic pressures is very limited.

In addition, the capacity of the economy to absorb large amounts of extra Government spending without causing excessive aggregate demand pressures, resulting in high imports and inflation, will be limited over a given period of time. Adopting an offshore fund for macroeconomic stabilization purposes would still allow the Government to maximise its developing spending program while reducing exchange rate and inflationary pressures as well as avoiding overheating the economy.

With LNG revenues expected to commence from 2014 through dividends and subsequently, through substantial tax revenues, the most immediate impact on the economy is likely to be a sizeable appreciation of the Kina. It is difficult to predict the extent to which the currency will appreciate as it also depends upon a range of other factors.

Furthermore, increased liquidity in the economy would also increase inflationary pressures. Over time, a stronger exchange rate and higher inflation would seriously undermine international competitiveness of the non-mineral exporting sector, particularly agricultural, forestry and fisheries exports, import competing manufactures and tourism.

The likely emergence of these issues is expected to have major ramifications for the operation of monetary and fiscal policy, as highlighted below.

From a monetary policy perspective, an increase in domestic liquidity would have immediate and adverse implications as examined in Section 1.4 below. One major issue relates to the likely need for BPNG to mop up the excess liquidity in order to avoid large inflationary pressures building up which would increase the cost of monetary policy operations. In addition, an appreciation of the Kina will reduce the value of foreign reserves and may cause an unrealised loss on BPNG's holdings of foreign assets. Both issues would have serious ramifications for BPNG's profitability and balance sheet.

From a fiscal policy perspective, notwithstanding the country's substantial development and investment needs, the domestic economy does not have an unlimited capacity to absorb large amounts of additional Government spending that would be financed from LNG revenues. Too rapid an increase in Government spending would exacerbate excess aggregate demand pressures that would lead to high imports and inflation. An inflation breakout would affect everybody by increasing price levels of basic goods and services across the country and reducing export competitiveness (in much the same way as an appreciation of the exchange rate would).

Aside from the important macroeconomic limitations of onshore funds, the governance and design issues are also likely to come under more pressure. As experienced with the MRSF, governance issues came under a lot of pressure which partly reflected the structure and composition of the Fund's Board. As observed by the World Bank, the board was dominated by government officials, and as a result, found it difficult to resist government pressure for large withdrawals. It was also evident that the MRSF was not well integrated with the budget and overall fiscal policy framework.

In addition, the fiscal framework needs to support the good governance of any fund. In 2009, funds flowing from Government trust funds accelerated sharply to be well in excess of maximum limits set under the Medium Term Fiscal Strategy. This breach of fiscal rules highlights the importance of ensuring that governance arrangements are robust and adhered to in order to promote fiscal control and macroeconomic stability.

In light of these considerations, an offshore fund is the preferable policy mechanism. From an economic standpoint, the IMF has found that such a policy would help protect the competitiveness of the non-mineral sector by sterilizing government savings (out of mineral resource revenue originating from abroad). The main transmission channel for mineral revenues to the economy is fiscal policy via Government spending.

Having an offshore fund would also mean that its funds could be invested in the domestic economy in a manner determined by the Government through the annual budget process at a rate that does not unduly appreciate the currency or cause undue inflationary pressures. The rate of annual spending will be explored further with the aid of various modeling.

From a development and investment standpoint, the extent of Government spending should be in accordance and consistent with PNG's development needs and plans, while maintaining macroeconomic stability. With the adoption of an offshore fund, the drawdown of funds could support the Government's development priorities and promote prudent fiscal policy while avoiding a large appreciation of the Kina, a significant increase in the cost of operating monetary policy or an unsustainable expansion of BPNG's balance sheet.

1.4 Monetary Policy and Issues

The objective of monetary policy in PNG is to achieve and maintain price stability. This entails low inflation supported by stable interest and exchange rates. The maintenance of price stability leads to:

- Confidence in the Kina exchange rate and management of the economy;
- A foundation for stable fiscal operations of the government;
- Certainty for businesses to plan for long-term investment; and
- A stable macroeconomic environment conducive to economic growth.

Over the past decade, liquidity levels in PNG have increased over fivefold, while total deposits of commercial banks more than quadrupled. The substantial build-up of liquidity in the banking system stems from various sources, including foreign exchange inflows as a result of high international commodity prices; capital injections from abroad (foreign direct investment) and government expenditures.

There is excess liquidity in the banking system, especially since 2000. Commercial banks are currently holding more in free reserves, i.e. funds in excess of the prudential requirement (minimum liquid asset ratio of 25 per cent). Between 2000 and 2009, the free reserves within the banking system averaged 23.3 per cent.

This situation poses a threat to BPNG's management of monetary policy. These excess funds could go into increased commercial bank lending, thereby fuelling domestic demand and hence, inflationary pressures. Or the funds could flow out of the country through the foreign exchange market by way of higher import demand. This would put downward pressure on the Kina exchange rate and result in higher inflation.

In well developed capital markets, open current and capital accounts with a floating exchange rate regime, free international capital mobility ensures that current account balance is maintained. In addition, free international capital mobility naturally regulates excess liquidity and in part eases pressure on the monetary policy operations. Monetary policy operations may come under stress and become expensive, if all of these conditions do not hold.

The windfall revenues from high commodity prices from 2005 to 2008 were placed in trust accounts and used to reduce debt/liabilities. Up to and including the 2009 Budget, a total of K4.6 billion was appropriated to trust accounts for implementation of priority expenditure programs. The fast drawdown of these funds, outside of the National Budget, contributed to the high liquidity and inflation outcomes in 2008 and 2009.

To diffuse this excess liquidity, BPNG needed to issue a large number of Central Bank Bills (CBBs) at substantial cost. CBBs on issue increased from K2.5 billion in 2006 to K4.1 billion in 2009. Accordingly, the cost of monetary policy management increased from K34 million to K197 million per annum over the same period.

The high domestic liquidity situation will be further exacerbated by direct and indirect foreign exchange flows and income growth associated with construction and production from the PNG LNG project. These inflows will inject new liquidity into the banking system as well as increase the demand for goods and services in the country. This liquidity will add further to inflationary pressures.

1.5 Exchange Rate Issues

Frequent and lumpy inflows and outflows of foreign exchange, for instance during periods of high economic growth has the potential to cause significant volatility in the nominal Kina exchange rate and generate transactional costs for businesses, individuals and the government.

Large inflows, if not quarantined or offset by large outflows, cause the nominal exchange rate to appreciate (increase in value) resulting in financial losses and may make the non-mineral sector decline. This situation is called Dutch disease, where an appreciating currency affects the non-mineral sector by making its exports more expensive, import competing manufactures cheaper and therefore results in an overall loss of competitiveness.

PNG has previously experienced Dutch disease. In the first half of the 1990s, the mineral boom associated with production from the Misima, Porgera, Kutubu and Tolukuma projects as well as the existing project in Ok Tedi increased mineral export earnings and caused the nominal exchange rate to appreciate, even under a fixed exchange rate regime. The large increase in income to landowners, workers of the projects, spin-off business operators and the Government led to high domestic demand, creating a consumption boom and causing high inflation. Increased Government spending and domestic demand went to imports, mainly consumables, which resulted in the collapse of the fixed exchange rate regime in October 1994. The increased activities and high income from the mineral boom also resulted in the neglect of the agriculture sector and other tradeable sectors. The country is still recovering from the adverse economic effects of the last mineral boom on the tradeable sectors.

Diffusing large inflows of foreign currency by sterilization will add to the cost incurred by BPNG. The foreign currency inflows will be converted into Kina, adding to liquidity in the banking system. BPNG will therefore have to diffuse these injections to ensure price stability, because the inflows can cause inflation. To neutralize the injections of liquidity, BPNG will have to issue more CBBs, thereby incurring more cost on its balance sheet.

These higher foreign exchange inflows will increase the reserves of BPNG. Unless the capital of BPNG is increased to match these inflows, this will result in a mismatch between the asset and liabilities on BPNG's balance sheet. A small appreciation of the exchange rate will therefore have a large negative impact on BPNG's profitability.

In addition, direct or indirect employment of resources by the PNG LNG Project is likely to generate intense economy-wide competition for resources. The resulting overall increase in the price of goods and services may cause an appreciation of the real exchange rate, which may lead to inefficient allocation of resources and make exports from PNG uncompetitive.

1.6 Fiscal policy and Issues

The operation of fiscal policy in PNG is underpinned by a stable, responsible and prudent framework which is designed to assist the Government to manage its fiscal resources and promote macroeconomic stability.

The fiscal policy framework comprises the Medium Term Fiscal Strategy 2008-12 (MTFS) supported by a debt management strategy, the *Papua New Guinea Fiscal Responsibility Act 2006* and the *Public Finances (Management) Act 1995*.

1.6.1 Medium Term Fiscal Strategy

Since its inception, the MTFS has assisted the Government in achieving the National Goals in the Constitution and its development objectives by providing a framework to handle highly volatile and uncertain amounts of revenue from PNG's commodity exports.

The MTFS divides tax revenue and dividends from mining and petroleum activities (referred to as 'mineral revenue') into *normal mineral revenue* and *additional mineral revenue*.

Under the MTFS, 4 per cent of GDP per annum from mineral revenue is regarded as normal mineral revenue – the amount of mineral revenue that can be expected in the absence of a commodity price boom. The purpose of defining normal mineral revenue is to identify a reliable source of funding for ongoing Government spending. Normal mineral revenue is combined with non-mineral revenue to fund spending through the Budget.

Revenue in excess of normal mineral revenue (that is, the portion of mineral revenue over 4 per cent of GDP per annum) is defined as additional mineral revenue. Additional mineral revenue can be used to fund additional public investments and to repay public debt.

The principles for spending additional mineral revenue are to provide benefits to future generations, manage the impact on domestic and import demand, and deliver the highest net benefits to PNG. Importantly, additional mineral revenue should be used flexibly, so that spending is not disrupted if mineral revenue is lower than expected.

Actual Government investment spending from additional mineral revenue is limited to 4 per cent of GDP per annum in the MTFS, in order to help smooth aggregate demand fluctuations. This includes direct Government spending and spending from trust accounts. Hence, the total amount of mineral revenue that can be spent each year is up to 8 per cent of GDP – 4 per cent of GDP of normal mineral revenue, and up to 4 per cent of GDP of additional mineral revenue.

Purpose of the MTFS 4 per cent Rule

Tax revenue and dividends from mining and petroleum activity is highly volatile, reflecting the inherent volatility of international commodity prices. This will tend to result in volatility in Government spending and the budget balance. The MTFS seeks to manage/smooth the volatility in Government spending and ensure that ongoing spending is kept at a sustainable level.

For example, PNG received substantially higher mineral revenue during the commodity price boom period from 2005 to 2008. It would have been extremely unwise for the Government to have increased ongoing spending to match the higher revenue, as it would have been very difficult to reduce ongoing spending after commodity prices dropped abruptly in late 2008. Hence, the intention of the 4 per cent rule is to limit ongoing spending to the amount of mineral revenue that can be reliably collected each year. The additional mineral revenue is to be spent on one-off public investments and to retire public debt.

The MTFS also seeks to smooth economic growth over the commodity cycle. The caps on spending of normal mineral revenue and additional mineral revenue facilitate counter-cyclical fiscal policy. That is, they tend to provide a contractionary fiscal policy when both commodity prices are high and additional mineral revenue exceeds 4 per cent of GDP, and an expansionary fiscal policy effect when the opposite happens. This helps to manage demand and inflationary pressures during a commodity boom (as occurred in 2007-2008), and provide a fiscal stimulus when commodity prices are weak (as in 2009).

As the size of spending financed from mineral revenue is measured as a percentage of GDP, it does incorporate some procyclical elements. This is because when the economy is growing strongly, it allows more spending from mineral revenue and if economic growth is falling, a lower level of spending is allowed. Nevertheless, in terms of practical application in an environment where data concerning economic developments are poor, the MTFS provides clear and implementable fiscal rules that were designed to provide a large countercyclical impact while allowing for an increase in government spending during a period of sustained economic growth.

The MTFS also seeks to ensure that the spending of additional mineral revenue provides long-term benefits for PNG and is consistent with the Long Term Development Strategy.

Experience with 4 per cent Rule

In its first two years of operation, the current MTFS was highly successful in managing fiscal policy and helping PNG withstand the negative impact of the global financial crisis and subsequent recession.

Despite the unexpected Budget deficit in 2008, the MTFS has assisted the Government to manage spending following the collapse in commodity prices in late-2008. Without the MTFS, ongoing spending in 2009 would be much higher, requiring deep cuts to Government spending to avoid large and continuing budget deficits.

In addition, the MTFS has helped shield PNG from the worst effects of the global financial crisis and international recession in 2009. Spending of funds saved in trust accounts during the commodity boom has provided a major stimulus in 2009, supporting economic growth when growth was slowing in PNG and the world was in a recession.

Similarly, the payment of additional mineral revenue into trust funds during the commodity boom helped to ease inflationary pressures when both aggregate demand and inflation were relatively high. It also resulted in the repayment of Government liabilities, reducing the Government's annual debt serving obligations.

However, in 2009, there was a substantial breach of the MTFS spending rule which seeks to limit annual Government spending from additional mineral revenue to 4 per cent of GDP. While a much greater amount than 4 per cent of GDP left Government trust funds, it is unclear whether these funds have been actually spent or transferred to other accounts. This represents a problem with a lack of adherence to the MTFS rules and ineffective management/reporting/accounting of the trust accounts rather than indicating a problem with the rules themselves.

To date, the MTFS has assisted PNG to avoid the economic problems of the past after commodity prices have fallen substantially. Effectively, the MTFS has smoothed Government spending, providing lower Government spending during the commodity boom, and higher Government spending after the end of the commodity boom. With the exception of the substantial breach of MTFS spending rules in 2009, this has represented prudent economic and fiscal management by the Government.

1.6.2 Absorptive Capacity of the Economy

As well as considering the ongoing appropriateness of the MTFS 4 per cent rule, the Working Group has given consideration to the absorptive capacity of the economy.

In light of the large expected revenues arising from LNG, spending from the Budget should be able to be increased in order to achieve development objectives. However, in order to maintain macroeconomic control, any increased spending needs to be contained to the absorptive capacity of the economy. If increased spending causes the economy to overheat, excess demand pressures will increase imports and inflation, causing investments in the economy to represent poor value for money and worsen rather than improve development prospects.

To assist the Working Group's consideration of these issues, donor assistance from the Australian Government, World Bank and IMF to prepare economic modeling on the absorptive capacity of the economy has been sought and will be used to inform the Working Group's advice to Government.

Pending the guidance provided by the economic modeling that has been sought, the existing MTFS rules concerning Government spending allowed from mineral revenue (including LNG revenue into the future) provide a reasonable starting point for consideration. This would mean that a large boost to the economy by LNG project(s) would also allow for a correspondingly large increase in Government spending in level terms, while it would remain the same proportion as a percentage of GDP. Given spending problems in excess of the 4 per cent rule in 2009, mechanisms to ensure adherence to the spending rules will need to be strengthened.

SECTION 2 – DESIGN ISSUES

2.1 Introduction

In considering the design of an appropriate SWF, the Working Group has been guided by international best practice, the Sovereign Wealth Fund Generally Accepted Principles and Practices (Santiago Principles), the Prime Minister's Parliamentary Statement on Financial Close for the PNG LNG Project, the Long Term Development Strategy and Papua New Guinea Vision 2050.

The Prime Minister's statement identified that the Government was exploring options to set up three interrelated funds – a Stabilization Fund (using revenue streams from 30 per cent Corporate Tax and Additional Profits Tax), an Infrastructure Fund (using dividends from the State's equity stake held by Kroton No. 2) and a Future Fund (using portions of revenues from 30 per cent Corporate Tax and Additional Profits Tax and dividends in the PNG LNG Project).

The Long Term Development Strategy proposed two separate funds – an Infrastructure Wealth Fund (using dividends from the State's equity stake held by Kroton No. 2) and a Sovereign Investment Trust Fund (using 60 per cent of minerals revenues).

In preparing this discussion paper, the Working Group has consulted with a series of key domestic and international stakeholders. In particular, the Working Group has considered feedback from the Independent Public Businesses Corporation.

Additionally, the Working Group has consulted with, and referenced papers prepared by, the IMF and World Bank[1].

2.2 Objectives of a SWF

SWFs can be set up for a variety of purposes. Some SWFs have been established for short-term liquidity needs of balance of payments (BOP); some for fiscal stabilization; some to meet future pension liabilities; while others are established as saving funds to generate financial cash flows for current and future generations.

PNG's circumstances suggest that the following are the most important considerations:

- Macroeconomic stabilization - volatile and unpredictable mineral and resource revenue, contributing to short-term macroeconomic stability and avoiding deterioration in the quality of public spending.

- Avoidance of Dutch disease - to counteract upward pressure on and volatility of the level of real exchange rate, which affect the competitiveness of the non-resource tradable sectors.

- Asset management - to help manage (rising) financial assets accrued from natural resource revenue.

- Savings - to build up wealth for future generations, ensuring intergenerational equality and long-term fiscal sustainability.

In these circumstances, there are three likely models:

- Stabilization Funds - usually have contingent (deposit and withdrawal) rules, which determine the amount of resources that should be deposited in the fund or that can be withdrawn from it, depending on whether the market commodity price or revenue is higher or lower than thresholds. Such thresholds or reference value, usually preannounced, are typically based on fixed budget commodity prices or on a formula that may be linked to past trends (such as historical moving-average prices) or forecasts of future prices whose primary objective is to insulate the budget and the economy against commodity (usually oil) price swings.

  Some countries, including Chile, have established Stabilization Funds to help reduce the impact of volatile revenues on the economy (the MRSF was also an example). Some Stabilization Funds have price or revenue thresholds (Contingent Stabilization Funds, as in Russia and Kazakhstan) and are designed

[1] International Monetary Fund (Fiscal Affairs Department), "*Forthcoming IMF Selected Issues Paper on Managing Windfall Revenues from LNG Projects in Papua New Guinea* (2010)" and the World Bank (East Asia and Pacific Region), "*Managing resource-Induced Volatility in Papua New Guinea: Some Issues for Discussion* (2010)".

to accumulate resources when either the price or the revenue are above a certain threshold and transfer resources to the budget when below the threshold.

- Savings Funds - which aim to convert non-renewable assets into a more diversified portfolio of assets and income streams and mitigate the effects of Dutch disease. The deposit rules are usually non-contingent revenue based and withdrawal rules are typically based on *bird in hand* – i.e. limited to financial yield – or *permanent income* – withdrawn gradually to ensure a constant share for each generation. Generally, Savings Funds have the goal of saving the resource-related wealth for future generations (for example, Timor-Leste's Petroleum Fund).

- Financing Funds – which can have both stabilization and saving objectives, have much more flexible operational rules. In financing funds, typically little more than a government account, net inflows effectively mirror the overall budget balance. Under the rules in place, the budget is required to transfer to the fund net mineral revenues. In turn, the fund finances the budget's non-mineral deficit through a reverse transfer. The fund's net flows are linked to the overall fiscal surplus or deficit. In this way, a financing fund provides an explicit and transparent link between fiscal policy and asset accumulation. Changes in the assets held by the fund correspond to those in the overall net financial asset position of the government. Norway's Government Pension Fund – Global, is an example of such a fund, and is considered to be a benchmark SWF.

In light of these considerations, an offshore Financing Fund is likely to be the most suitable for PNG. Drawing on international best practice and past experience, key design elements would include:

- Fully integrating the SWF with the budget and fiscal framework. Drawdown rules need to be developed that directly support the Government's development and investment objectives. All revenues from the PNG LNG project should eventually flow through the Budget. In considering the Prime Minister's recent statement, a single offshore SWF with specific drawdown arrangements could be an effective approach to achieve the three desired objectives.

- Governance, transparency, disclosure, accountability and asset management rules based on international best practice (for example, Norway's Government Pension Fund – Global and Australia's Future Fund). The SWF should invest only in foreign assets and be restricted from purchasing PNG government debt or investing or lending directly domestically. The assets of the SWF should not be pledged as collateral against any borrowings by the Government.

- Ensure proper surveillance by Parliament. Regular audits by reputable internationally recognized firms, and regular disclosure of SWF assets and liabilities, operating performance, risks, and investments, and any other relevant information for public disclosure.

2.3 International Experiences with SWFs

The institutional and operational setup of SWFs varies. Some examples include Norway, Botswana, Chile, Timor-Leste, Russia, Australia, United States and Kazakhstan.

Norway's Government Pension Fund - Global was established in 2005, replacing the initial State Petroleum Fund established in 1990. The fund is managed by the Ministry of Finance, while its operational matters are housed within the fund management division, an independent business area of the Central Bank of Norway. It invests offshore in a pool of asset classes around the world to diversify risks and income streams, promote macroeconomic stability and minimise effects of Dutch disease. The fund operates within a balanced-budget framework, which minimizes accumulation of public debt and fiscal slippages.

In Botswana, the Reserve Management Fund (RMF) was established in 1993 and is managed by the Central Bank of Botswana. External investment managers are engaged to invest foreign exchange earnings from diamond exports in a pool of assets in developed capital markets to diversify risk and returns.

Chile is a major copper producer. In 1985, the Chilean Government established the Copper Stabilization Fund to stabilize both the exchange rate and fiscal implications from volatility in Copper revenues. In 2006, the Economic and Social Stabilization Fund (FESS) replaced the Copper Stabilization Fund, with the intent that draw downs from the fund are used for counter-cyclical social spending during economic downturns to ensure that public spending is no longer dependent on the fluctuations of international copper prices and the global economic developments.

Timor-Leste established its Petroleum Fund in 2005 to receive all revenue generated from its petroleum resources. The Fund is used to finance the Government's Budget with the objective being to save wealth for future generations, de-link spending from volatile revenue, and invest abroad to help maintain macroeconomic stability through sound and transparent management of Timor-Leste's oil revenues. Timor-Leste's SWF is currently in the process of being revamped to allow greater scope for higher Government spending.

Russia's Oil and Gas Fund was established in 2004 and modeled on the Norwegian Fund. The fund accumulates revenues from the export duty for oil and the tax on the oil mining operations when the price for oil exceeds the set cut-off price. Like Norway's fund, the Oil and Gas Fund serves as an important tool for absorbing excessive liquidity, reducing inflationary pressure and insulating the Russian economy from the volatility of commodity based revenues.

The Future Fund of Australia (FFA) was set-up under the Future Fund Act in 2006, from the proceeds of Australian Government bond issues. Its operational set-up is intended to fund the future unfunded superannuation liabilities of the government.

The Alaska Permanent Fund (APF), a long-term savings fund, is an independent operating entity, primarily funded by revenues from oil exports in the American state of Alaska. It was established in 1976 by an amendment to the Alaskan constitution, following a national referendum. Its fund managers are entrusted with a duty to generate profits alone, from a diversified portfolio of investments around the world, for distribution to the Alaskan population – this feature makes it quite different from other SWFs. The principal of the Fund cannot be withdrawn at any time.

The National Oil Fund (NOF) of the Republic of Kazakhstan was established by presidential decree in August 2000. The fund was modelled on the Government Pension Fund-Global of Norway and the APF of Alaska. Income generated by the fund is used to fund designated development expenditures to improve the productive capacity of the economy.

These experiences show that fiscal discipline, independent management and prudent investment strategies are important in the success of SWFs in meeting their stated objectives and functions.

2.4 Operational Rules

As defined by the IMF, operational rules for a SWF are guidelines for its operations, and can be rigid, flexible or combination of both. Operational rules typically include specific principles for depositing revenue into the fund, withdrawing resources for direct spending or making transfers to budget, investing the fund’s financial assets (to increase returns), and providing information about revenue inflows and change in financial assets.

In PNG’s case, a SWF’s operational rules need to be consistent with, but are different to, the wider fiscal framework (including the MTFS). For this reason, operational rules should be clearly articulated and consistent with the purpose and objective of the SWF whilst supporting prudent macroeconomic management. The design of these arrangements can vary.

Withdrawal and Deposit Rules

A key design issue for an SWF is whether withdrawal and deposit rules should be rigid or flexible.

In considering this issue, the IMF has found that rules regarding channelling revenues out of and into the fund do <u>not</u> of themselves control spending or deficits at the government level. In particular, if the government is not liquidity constrained (including through arrears), it could borrow or run down assets to finance higher expenditure, as resources are fungible. Thus, if there is insufficient control of expenditures or deficits outside the fund, the advantages of operating a fund that stabilizes resources available to the budget would be limited. The achievement of actual expenditure smoothening therefore requires specific/additional fiscal policy decisions besides the operation of a fund.

Given this, many SWFs rely on relatively rigid operational rules for accumulation and withdrawal of resources. IMF has found that the main rationale behind rigid rules is to impose discipline and control and to minimize negative impacts of exceptionally high resource revenues from the budget and thereby help moderate and stabilize government expenditure by reducing policy discretion.

However, according to IMF's recent work on SWFs, international evidence, including PNG's own experience with the MRSF, suggests that a number of countries have had difficulties in specifying and implementing financially and politically sustainable rules. It is crucial to have committed political leadership and support for the SWF for it to be successful. Rigid rules also face difficulties because of problems in identifying permanent and temporary components of commodity price changes. Moreover, tensions have often surfaced in the operation of funds with rigid rules, particularly in situations of significant external changes, for example the recent global financial crisis, shifting policy priorities, increased spending pressures, and conflicting asset and liability management objectives.

As a result, in a number of cases, rigid fund rules have been changed[2], bypassed[3], and suspended[4]. In some extreme cases, funds were eliminated altogether (e.g. Chad and Ecuador) because of accumulation of arrears and/or cash management problems in the context of increased spending pressures. In the case of the MRSF, rules on deposits and withdrawals were changed over time in the face of budgetary pressures, leading to large budget deficits and higher public debt. Moreover, the assets were used as collateral for new borrowing and to repay debt.

In light of this, the operational rules of a SWF need to be sufficiently flexible to allow it to function effectively within the wider fiscal framework, and deal with unexpected shocks, but rigid enough to impose sufficient discipline and control.

SWF Scope and Deposit/Withdrawal Arrangements

In discussing the scope of an SWF for PNG, the Working Group has considered the Prime Minister's recent statement and whether a SWF should include all tax revenues, including dividends and royalties, arising from all exhaustible mineral and petroleum commodities or only those arising from LNG Projects.

From a macroeconomic standpoint, the scope of a SWF should be framed by its policy objectives which are underpinned by the Government's overarching economic and fiscal policy framework and integrated in a manner that promotes prudent macroeconomic and fiscal policy management.

With the PNG economy's heavy reliance on exhaustible mineral and petroleum commodities, it would make a lot of sense to deposit all proceeds, particularly tax revenue and dividends, arising from all exhaustible mineral and petroleum

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[2] Kazakhstan, Russia, and Trinidad and Tobago changed the threshold values for accumulating deposits several times and even the definitions of oil revenue affected by those rules in an effort to accommodate higher spending while maintaining the relevance of their funds.

[3] Algeria borrowed domestically to finance increased spending and passed on the liabilities to its oil fund, which was only allowed to repay debt

[4] Venezuela is stopping the simultaneous accumulation of deposits and domestic debt

commodities into a single offshore fund. This would also help to smooth fiscal revenue and sterilize foreign currency inflows.

In considering the separate objectives set out in the Prime Minister's recent statement, the Working Group considers that drawdown/withdrawal rules could be a preferable mechanism to achieve the stated objectives in a manner that is fully integrated with the budget process. In addition, such arrangements could help ensure that an aggregate level of Government expenditure is set in accordance with the absorptive capacity of the economy in order to ensure prudent macroeconomic and fiscal management. It is very important for fiscal policy control that all funds spent from a SWF flow through the budget, as well as to ensure full oversight by Government.

Such integration in having one overarching SWF allows for unified control and prioritization of Government spending and their financing and helps ensure that all expenditures are subject to appropriate consideration through the Budget process. This allows the Government to have maximum impact on the overall fiscal stance. Having multiple funds for different purposes would be likely to lead to a loss of fiscal policy coordination and control.

According to the World Bank, international experience with SWFs have brought to the fore the dangers of granting funds with capacity to spend by their own, of earmarking revenue from funds, and even of undertaking investments domestically that cannot be distinguished from budgetary operations. In order to avoid this, all revenues need to pass through the budget, and all spending to be executed by Treasury, in consultation with key government stakeholders.

In this regard, integration of drawdowns from the SWF into the Budget process is critical. Well designed drawdown arrangements also provide an opportunity for the Government to use funds for different purposes. In light of the economic considerations canvassed earlier, two important factors are:

- Drawdowns should be in accordance with the absorptive capacity of the economy and made through the annual Budget process.
- Drawdowns should be quarterly to facilitate cash flow management for the budget.

Asset Portfolio and Risk Management

Since SWFs hold substantial assets, their investment strategy needs to be crafted carefully and reviewed periodically. This strategy could be prepared by Treasury, in consultation with key government stakeholders. It is critical that the management of the assets be at arms length from Government for obvious reasons.

A fund should be guided by a clear investment strategy which defines:

- Investment objectives and strategy – needs to be consistent with fund objectives and risk tolerance;
- The types of assets that the fund can invest in;
- The level of investment and exchange rate risks;
- The matching of the government's assets and liabilities;
- Diversification of the fund's assets;

- Prudent investment rules; and
- The time horizons of investments that take into account the desired level of liquidity required for withdrawal purposes.

The asset management strategy of Chile's SWF offers a valuable lesson. It has a transparent investment policy: two-thirds of the assets are held in foreign government inflation-index bonds, about 30 per cent in foreign money market funds and 3.5 per cent in other sovereign bonds.

The aim is for the SWF is to follow best practice in sovereign wealth fund management, including adopting best international asset management practice in all aspects of fund management. The SWF should be managed with a view to maximize return given a moderate level of risk. At the same time, the SWF should give regard to the conduct of the companies in which the SWF is invested.

The investment mandate of the SWF should be to maximize the overall return on the assets within a given level of risk tolerance, sound investment practice and fundamental governance principles. A currency benchmark should also be defined in the investment mandate to manage exchange rate risks.

While it is likely that the fund will be denominated in US dollars (as discussed in section 2.7), investments could be undertaken in a range of currencies. Actual currency composition of the asset portfolio should be determined in the context of an asset-liability matching framework and the volatility of the major currencies in which PNG's foreign assets and liabilities are held. For example, by matching the assets of the Government against its liabilities or by selecting currencies which are relatively more stable, would diversify risk and maximize returns, as well as reduce the exchange rate exposure risk. In addition, interest rate risks and credit risks should be defined in the investment policy to guide the selection of asset portfolio composition of the fund.

In defining the investment strategy for the SWF, guidelines for an investment benchmark portfolio should be developed for implementation. The composition of the benchmark portfolio needs further consideration; however, it should consist primarily of investment grade sovereign bonds, listed equities and private bonds.

The indices (weights) making up the benchmark asset portfolio for the SWF should include a representative selection of investment grade securities. The benchmark index for equities should comprise companies in the advanced economies, whilst the benchmark index for bonds should comprise securities issues in investment grade currencies.

The adoption of such a prudent investment mandate will help strengthen confidence in the SWF and its management.

2.5 Governance, Accountability and Transparency

It is crucial that best practice, governance, accountability and transparency arrangements anchor the establishment and management of the SWF to help guarantee its success.

Governance

Consistent with international best practice, the governance framework for a SWF should be sound and establish a clear and effective division of roles and responsibilities. This is necessary to facilitate accountability and operational independence in the management of the SWF so it can to pursue its objectives.

The Working Group has found that governance arrangements differ between SWFs. Some SWFs (for example the Australian Future Fund) are established as separate legal entities, whereas other SWFs (for example Norway's Government Pension Fund – Global and Timor-Leste's Petroleum Fund) are established as a pool of assets without separate legal identity. Based on initial consideration of this issue, it is likely that the latter approach is best suited to PNG's circumstances, particularly given the related consideration of using an offshore investment manager to oversee day to day investment management of a SWF.

To oversee the operation of a SWF, the Working Group considers that the Government should establish an independent board which is established to act in the best interests of the SWF, which has a clear mandate and adequate authority and competency to carry out its functions. Membership of such a board should reflect a suitable range of relevant skills, background and experience rather than being based on community or sectional interests. Such membership would, however, be expected to include the Government representatives (including the Treasury Secretary and Governor BPNG), independent representatives with relevant skills, background and experience and the SWF investment manager. Possible board models for further consideration include the PNG Sustainable Development Program and Nambawan Superannuation Limited. Such a board could be directly supported by the Department of Treasury and BPNG.

Accountability

Given past experience with serious accountability issues in PNG, an accountability framework modelled on international best practice should be adopted and implemented for the SWF, with specific reference to the Sovereign Wealth Fund Generally Accepted Principles and Practices (Santiago Principles).
The accountability framework must identify and establish clear relationships and roles between the SWFs owner, its governing body, the manager of the fund, investment manager and the custody manager. The overall framework should have the following features:

- <u>Institutional Accountability</u>

  The SWFs governing body and its manager must report to the owner and fully account for the management and operations of the Fund.

- <u>Allocation Accountability</u>

The Government, including Parliament, must fully account for funding allocations by the SWF to the national budget.

- Fund Use Accountability

  The uses of funds allocated through the national budget for designated purposes must be fully accounted for by the spending entity and the suppliers of goods and services.

- Foreign (Host) Country Accountability

  The SWF must comply with policies, laws and regulations for jurisdictions in which it conducts its business.

- Ethical Accountability

  Professional and ethical standards should be clearly defined and disclosed to the governing body, the fund manager and staff members.

The building block of accountability is to establish a long-term savings institution that:

- is independent from Government/political interference;
- has clearly defined objectives and functions;
- has predatory controls;
- minimizes adverse substitution effects; and
- is for future generations.

The independence of the SWF should ensure that it is free from external political and other influences so that it can conduct its operations within the confines of its stated objectives and functions. A sound legal framework that underpins a robust institutional and governance structure and clearly defined relationships to other private and pubic institutions should assist with effective operation of a SWF to achieve its stated purpose.

The objectives and functions need to be clearly stated for the operation of the SWF, to prevent its use for unclear or undefined purposes. A clearly defined policy purpose facilitates formulation and implementation of appropriate investment strategies based economical and financial objectives. The pursuit of other types of objectives (secondary objectives) should be narrowly defined and mandated explicitly.

Predatory controls are designed to protect the institution and the integrity of funds disbursements. Defining fiscal rules for SWF withdrawals, eliminating mortgaging of SWF for government borrowings, and preventing the SWF from taking controlling interest or being controlled by another entity controlled by the government, minimizes opportunistic behaviour that may defeat or threaten the long-term sustainability of the fund. Funds allocated by the SWF should be used for designated purposes only, within the overall budget and fiscal policy framework. This provides the basis for an audit trail, from fund allocation to its ultimate use. It ensures efficient resource allocation and use in a transparent and accountable manner.

The more challenging issue is how to minimize the perception that the SWF is a substitute or replacement for other operations and financing of the government, or the operations of the private sector. Investing all of the LNG taxes, royalties and dividends outside PNG and limiting budget funding to designated purposes, would address and minimize the adverse substitution effects, but would not eliminate it completely for other operations and financing of the government.

Establishing a SWF for future generations would help preserve the fund's capital at all times. However, in PNG's case, strong development needs indicate that some capital withdrawal in the early years may be warranted to ensure that development spending is in accordance with the absorptive capacity of the economy and the Government's desire to improve economic development as quickly as possible.

Transparency

The transparent operation of the SWF requires development and implementation of clear policies, guidelines, systems and work processes, and reporting systems to support the objectives and functions of the SWF. Where required, these should be readily available for public access in a timely manner.

Investment policies for investments by the SWF; and policies and procedures for receipt of funds, fund contributions, fund allocation, record keeping, withdrawal and transfers must be adopted and implemented, forming an integral part of the governance framework to support the objectives and functions of the SWF.

Regular reporting and information dissemination to the stakeholders and the wider public are essential in ensuring institutional transparency and accountability. Annual report and accompanying financial statements on the operations and performance of the SWF should be prepared and disclosed in a timely fashion, in accordance with recognised and generally accepted international and national accounting standards and practices. In addition, more regular reporting should be provided to the Department of Treasury and the Bank of Papua New Guinea on either a biannual or quarterly basis. Where required, any other information should also be disclosed on a regular basis.

The SWF should be set up on these accountability and transparency principles so that its operations are subject to both internal and external performance reviews, including regular audits by professional international auditors, to ensure that a high degree of transparency and accountability is maintained.

2.6 Integration of a SWF within the Fiscal Framework

The importance of fully integrating a SWF into the fiscal framework has been discussed in earlier sections. However, it needs to be recognised that a SWF's operational rules and drawdown arrangements will not by themselves control spending and deficits. This will remain a function of the Government's wider fiscal management and Budget process.

PNG's current fiscal framework comprises the Medium Term Fiscal Strategy 2008-12 (MTFS) supported by a debt management strategy, the *Papua New Guinea Fiscal*

Responsibility Act 2006 and the *Public Finances (Management) Act 1995*. Careful integration of a SWF within this existing fiscal framework is desirable, as it would support and strengthen existing arrangements and would be consistent with best international practice and the Sovereign Wealth Fund Generally Accepted Principles and Practices (Santiago Principles).

While the exact changes required will need to be determined by a final decision on a SWF, the Working Group considers that a SWF should be supported by separate legislation that establishes:

- <u>Legal framework and objectives</u>
  - Legal basis and form
  - Objectives and wider policy linkages
  - Relationship with other legislation

- <u>Coordination with the fiscal framework and policies</u>
  - Macroeconomic linkages
  - Funding and withdrawal rules
  - Statistics compilation and reporting

- <u>Institutional framework, governance and accountability structure</u>
  - Institutional and Governance framework
  - Accountability
  - Assurances of integrity of operations

- <u>Investment and risk management framework</u>
  - Investment policy
  - Risk management and performance measurement

In addition, it is likely that the MTFS will need to be modified to reflect a SWF and possible amendments to the *Papua New Guinea Fiscal Responsibility Act 2006* and *Public Finance (Management) Act 1995* may be required to reflect and incorporate a SWF.

2.7 SWF currency denomination and location

In exploring the establishment of an offshore SWF, the Working Group has considered the appropriate currency denomination and possible location of a fund.

With respect to currency denomination of a SWF, world commodity markets are US dollar denominated and LNG related tax revenues, dividends and other proceeds will be accounted for in the US dollar. In light of this, it would be practical for SWF investments, operations and accounting to be denominated in US dollars. Such an approach is consistent with existing practice of overseas incorporated entities (for example, PNGSDP).

With respect to the location of an offshore investment manager to manage SWF investments, the Working Group considers that proximity to a major regional financial market and reputable fund management expertise should be a major determinant.

While specific location recommendations will need to be subject to a full review, possible locations could include Singapore or the United States.

SECTION 3 – PRELIMINARY CONCLUSIONS

The Working Group has prepared this discussion paper to identify key issues, reflect initial consultations with priority domestic stakeholders and identify issues requiring further examination.

In particular, the Working Group has considered the appropriateness of current arrangements and possible future arrangements to best manage the substantial future revenues arising from LNG production.

This work suggests that:

- A single offshore financing fund is likely to be the best approach to support the effective macroeconomic management of windfall revenues that will underpin social and economic development in the country. In considering the Prime Minister's recent statement, using such an approach with specific drawdown arrangements could be an effective way to achieve the three desired objectives.
- Key design elements of a SWF should include:
    - Fully integrating the SWF with the budget and fiscal framework.
    - Governance, transparency, disclosure, accountability and asset management rules should be based on international best practice.
    - Drawdown rules need to be developed that ensure prudent macroeconomic management while directly supporting the Government's development objectives.
    - The SWF should be overseen by an independent board which is established to act in the best interests of the SWF, and have a clear mandate and adequate authority and competency to carry out its functions.
    - Investment should be undertaken by an offshore investment manager who should invest only in foreign assets and be restricted from purchasing PNG government debt or investing or lending directly domestically.

These issues will be subject to further consideration and consultation, including at a domestic stakeholder workshop and a joint domestic/international stakeholder workshop planned to be held in Port Moresby in May 2010.

In addition, any interested organization or individual wanting to provide written comments on this discussion paper is invited to forward their comments by 30th April 2010 to:

Secretariat
Joint Sovereign Wealth Fund Working Group
Bank of Papua New Guinea
ToRobert Haus
PO Box 121, Port Moresby

ACKNOWLEDGEMENTS

In undertaking its work, the Working Group has contacted and will seek input from the following domestic and international stakeholders:

Government Departments	Other domestic stakeholders	International Stakeholders
State Enterprise	Independent Public Business Corporation	International Monetary Fund
National Planning & Monitoring	National Economic & Fiscal Commission	World Bank
Prime Minister & NEC	PNG Forestry Authority	Asian Development Bank
Agricultural & Livestock	National Fisheries Authority	Norwegian Ministry of Finance
Finance	Petromin Limited	Australian High Commission
Petroleum & Energy	Investment Promotion Authority	Australian Agency for International Development
Commerce & Industry	PNG Tourism Promotion Authority	European Union
Mineral Policy & Geohazard Management	National Gas Office	
Environment & Conservation	National Research Institute	
Foreign Affairs & Trade	Institute of National Affairs	
Lands	University of Papua New Guinea	
	PNG Trade Union	
	Public Employees Association	
	The National TaskForce	

The Working Group has also been assisted by papers from the International Monetary Fund (Fiscal Affairs Department), "*Forthcoming IMF Selected Issues Paper on Managing Windfall Revenues from LNG Projects in Papua New Guinea* (2010)" and the World Bank (East Asia and Pacific Region), "*Managing resource-Induced Volatility in Papua New Guinea: Some Issues for Discussion* (2010)".