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**CREATION OF A SOVEREIGN WEALTH FUND**

**Submission to the Department of Treasury and the Bank of Papua New Guinea  
Joint Sovereign Wealth Fund Working Group.**

**By  
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**NRI  
National Research Institute**

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**ACRONYMS**

|        |  |
|--------|--|
| ADB    | Asian Development Bank                           |
| APF    | Alaskan Permanent Fund                           |
| APFC   | Alaskan Permanent Fund Corporation               |
| CISF   | Copper Income Stabilization Fund                 |
| CPI    | Consumer Price Index                             |
| DSIP   | District Services Improvement Program            |
| ESSF   | Economic and Social Stabilization Fund           |
| GDP    | Gross Domestic Product                           |
| GFC    | Global Financial Crisis                          |
| GoPNG  | Government of Papua New Guinea                   |
| IFC    | International Financial Corporation              |
| IMF    | International Monetary Fund                      |
| KREF   | Kiribati Revenue Equalisation Fund               |
| LNG    | Liquefied Natural Gas                            |
| MRSF   | Mineral Resource Stabilisation Fund              |
| MTDS   | Medium Term Development Strategy                 |
| MTFS   | Medium Term Fiscal Strategy                      |
| NEC    | National Executive Council                       |
| NRI    | National Research Institute                      |
| OTML   | Ok Tedi Mining Limited                           |
| PAC    | Public Accounts Committee                        |
| PNG    | Papua New Guinea                                 |
| PNGSDP | Papua New Guinea Sustainable Development Program |
| POMV   | Percentage of Market Value                       |
| PRF    | Pension Reserve Fund                             |
| RF     | Resource Fund                                    |
| SWF    | Sovereign Wealth Fund                            |
| UN     | United Nations                                   |

## **EXECUTIVE SUMMARY**

To provide better outcomes for its people Papua New Guinea (PNG) has to change its approach to managing volatile resource revenues. By 2014 revenue from the PNG Liquefied Natural Gas (LNG) project is expected to flow to the government and if history is not to repeat itself, lessons will have to be learnt from the past.

Designing a Sovereign Wealth Fund (SWF) that aligns political incentives to long-term sustainable outcomes rather than short-term political windfalls is a challenge that must be overcome.

PNG is faced with a number of dilemmas in determining how best to invest proceeds from the PNG LNG project and other resource activities. Saving revenue for future generations and stabilising the macro economy must be balanced against the need to provide social development programs. Each set of saving, stabilising and investing choices will be constrained by:

- the absorptive capacity of the economy (rural and urban); and
- the absorptive capacity of government institutions (national, provincial and local).

Determining the degree to which the above constraints are binding depends on the trade-offs between:

- current development versus economic stabilisation; and
- current development versus future savings.

The economic objective of a SWF must be to translate the short-term destabilising effects of a commodity boom into long-term structural changes in the economy. The medium-term objective of a SWF is to improve key development indicators subject to the government's ability to design, implement and monitor quality public policy. Over the course of a commodity cycle the SWF must also have a stabilising effect on the macro and fiscal economy.

The long run economic objective of fiscal and monetary policy must be to broaden the economic base of PNG and thereby reduce the effects of a commodity boom on the economy. Diversifying trade and economic activity will help to achieve such stability without requiring the sterilisation of large amounts of revenue that could otherwise be used to raise the living standards in PNG.

Large capital inflows can have serious implications for macro-economic stability by placing upward pressure on inflation and the exchange rate, thereby reducing the competitiveness of the traded non-commodity sector. At the same time this encourages capital and labour to shift into the mining sector, narrowing the country's economic base.

A SWF can reduce the impact of large capital inflows but also create a tension between maintaining sound macro-economic conditions and increasing government spending. Rules to manage a SWF must balance the competing demands of prudent fiscal and monetary policy and expenditure flexibility.

In developing countries, and particularly in PNG, higher rates of return may be achieved through investment in social capital (health and education) rather than through the sterilisation of financial assets internationally. However, the returns on government investments will be subject to the ability of institutions to develop and implement quality social and economic policy programs.

Historically, it is known that PNG's vast sums of revenue from previous commodity booms did not translate into great wealth. A majority of the population remains poor and its economy undeveloped. Poor program support, implementation and monitoring have seen key development indicators remain stagnant or fall, over the past 20 years.

Economic theory suggests that extracting and selling resources amounts to running down capital, unless the receipts are fully reinvested in financial, physical or human capital (Hartwick Rule for intergenerational equity).<sup>1</sup> Exhaustible natural resource inputs can be substituted by man-made capital in a way that depleting these natural resources does not harm future generations.

Therefore, investing in financial, physical or human capital through the budget process can give the SWF, attributes similar to a permanent future fund and provide a more equitable distribution for future generations. Furthermore, empirical evidence suggests that resource-rich countries that follow the Hartwick Rule have higher incomes and stronger growth.

Some clear objectives for the use of resource revenues should include:

- broadening PNGs economic base to avoid the destabilising effects of future commodity price shocks;
- stabilising the macro-economic environment through investing revenues offshore;
- creating a political will for institutional reforms to substantially improve policy development, monitoring and auditing of government expenditure;
- integrating resource revenues into the Budget framework;
- creating a sense of ownership by the people of PNG;
- following the design of the Sovereign Wealth Fund on the SWF Generally Accepted Principles and Practices (Santiago Principles);
- creating a clear purpose and objective for how the revenue is to be used; and
- maximising the financial returns subject to appropriate risk.

While trade-offs between long- and short-term objectives will need to be made, frameworks for greater governance, accountability and transparency implemented, it is perhaps a sense of ownership by the people of PNG that will be the last defence against mismanagement and inappropriate use of the peoples' money.

The key to successfully transforming mineral wealth into the common wealth is strong political and government institutions, a sense of ownership by the people or an influential

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<sup>1</sup> The conditions under which the Hartwick Rule holds are restrictive (see Asheim, Geir and Buchholz 2003).

institution, quality public policy development or a preparedness to hold revenue until that occurs, and strong democratic institutions.

#### **Four Key Points**

A strong bulwark against political whims and favour is the intertwining of the SWF into PNG's Constitution, not just its legislation. The requirements to make constitutional changes are higher than those for legislation and while it may reduce flexibility to some extent, only high level principles would be included in the Constitution allowing other more dynamic elements of the SWF to be incorporated into legislation.

To further entrench broad-based ownership of the future fund, a greater effort must be made to outline and explain the benefits of a SWF and its design, should this proposal be implemented. The people of PNG must understand the role of the fund and how it has been designed to maximise the wealth and welfare of PNG's citizens.

The best design that achieves an appropriate balance between the economic, political and development trade-offs subject to institutional constraints is to create two funds. The first fund will contain the proceeds from the PNG LNG project and be a future fund; the second fund will contain the proceeds from other resource projects and be designed as a stabilisation fund. It is necessary that the funds are held off shore to:

- mitigate the economic problems related to monetary policy, such as maintaining low inflation and avoiding large exchange rate appreciations; and
- provide PNG with the highest return on its investment subject to risk.

While the Joint Department of Treasury and the Bank of PNG Final Discussion Paper on the establishment of the Sovereign Wealth Fund (GoPNG 2010), hereafter referred to as 'the Joint Discussion Paper' focuses on design issues in relation to a SWF, it is the ability of the public sector to implement quality programs and projects that will decide PNG's future. Without a full review of how expenditures are implemented and monitored, at all levels of government, the other half of the PNG development equation is missing.



## **BACKGROUND**

The development of the 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:

1. assess the appropriateness of the current framework;
2. seek feedback from international institutions — International Monetary Fund (IMF), World Bank and Asian Development Bank (ADB) — and other appropriate governments;
3. 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
4. report back to NEC by 30 June 2010.

This paper constitutes the NRI Submission to the Department of Treasury and Bank of Papua New Guinea Joint Sovereign Wealth Fund Working Group

## **SECTION 1: ECONOMIC MATTERS**

### **1.1 PNG Past Experiences**

#### ***1.1.1 Mineral Resource Stabilisation Fund (MRSF)***

The first attempt to manage PNG resource wealth was the Mineral Resource Stabilisation Fund (MRSF).

The MRSF legislation was introduced in 1974, originally holding the proceeds from PNG's Panguna Copper Mine. The MRSF later received all tax, royalty and dividend payments from major mining and oil projects including Misima, Porgera, Kutubu, Tolukuma and Ok Tedi.

The objective of a stabilisation fund is to reduce the impact of mining revenue volatility on the budget, any exchange rate appreciation and the effects of 'Dutch Disease'. The MRSF was held by the Bank of PNG and managed by departmental secretaries.

The maximum withdrawal from the MRSF was an estimated sustainable rate, measured in terms of real purchasing power, over the following five years, based on forecast MRSF income. Income for the MRSF was determined using production and prices forecasts.

However forecasting sustainable withdrawals proved difficult. The estimated sustainable drawdown rose from K31 million in 1978 to more than K80 million in 1981 before dropping to around K20 million in 1983 (Gould 2010).

With the startup of the Ok Tedi Mine and the associated large expenses, Papua New Guinea's current account deficit rose sharply. By drawing on the MRSF, Finance Minister Julius Chan attempted to reduce the deficit. In 1986, the fund amounted to K75.3 million and was subject to a government-imposed maximum 20 percent withdrawal.

In 1987 the government abolished the 20 percent limit rule, and withdrew K60.5 million from the fund, anticipating that future increased mining activities would alleviate any reduction. As Clark (2001) has stated "No one suspected at that time that the Bougainville mine would shutdown by the end of the decade".

Government revenue increased by almost 40 percent during the first half of the 1990s. Yet budget deficits remained high while the quality of expenditure declined and key development indicators remained stagnant. Per capita expenditure on health, education and infrastructure all declined and a lack of financial oversight meant government funds were not directed towards productivity and capacity enhancing investments. In 1998 draw downs from the fund exceeded payments and in 1999 the fund was emptied leading to its closure and eventual repeal of the MRSF legislation at the end of 2000 (Batten 2010).

A lack of sound governance and poor service delivery ultimately led to the fund being mismanaged and wasted.

### **1.1.2 Trust Accounts**

Specific purpose or debt repayment trust accounts have been the favored investment vehicle throughout the last decade. The use of trust accounts lead to an estimated 3000 separate accounts being operated at one time and while this was reduced to a more manageable 300, it was again governance and management issues that curtailed the effectiveness of such a vehicle to reduce poverty and improve key development indicators (*ibid.*).

The 2010 PNG Budget noted that trust account funds had been channeled to provincial and local administrators without the necessary financial and policy oversight. Moreover, implementing agencies and the relevant districts responsible for the District Service Improvement Program (DSIP) have to date provided no financial or project reporting to the Department of Finance (GoPNG 2009). This is thought to be due to administrators, particularly at the regional and local level, lacking the capacity or willingness to account for expenditures.

Due to gross mismanagement of the trust accounts by trustees the Parliamentary Public Accounts Committee (PAC) has refused to certify the Public Accounts of the Government for 2004-2006. The PAC found serious and continuous breaches of the *Public Finance (Management) Act* 1995 by trustees and officers of relevant departments, provincial and local-level governments and all agencies of government in trust account management and accounting (Palme 2010).

The PAC also noted that political interference in trustee appointments had resulted in misuse and a lack of accountability in every year since 2000.

### **1.1.3 Ok Tedi PNG Sustainable Development Program**

The PNG Sustainable Development Program (PNGSDP) is a privately held investment fund, established in 2002 after BHP divested its 52 percent holdings in the Ok Tedi Mining Limited (OTML).

The purpose of the fund is to invest in short- and long-term sustainable development projects in PNG. Two thirds of its dividends are allocated to a Long-term Fund for use after mine closure while one-third supports current sustainability projects throughout PNG and Western Province.

Fund management is conservative with the Long-term Fund invested in 'low-risk' investments. The primary objective of the investment program is to increase the size of the Long-term Fund through interest rate earnings, dividend income, capital gains and foreign exchange gains. It is proposed that eventually investment earnings will match expenditure requirements, allowing programs to be implemented without materially reducing the capital.

Currently, two thirds of the funds can be considered a saving fund which will be drawn down over 40 years and one third, a development fund, is devoted to generating higher living standards now.

## 4 *Creation of a Sovereign Wealth Fund*

### **1.1.4 Summary of Issues**

The provisions of the MRSF and of the trust accounts, which were designed to contain spending, have been ignored or rewritten because they were an inconvenience. The Asian Development Bank (2010) recently noted that draw downs from trust funds were far above a limit set in the medium-term fiscal strategy and did not appear justified given that the economy was maintaining solid growth”.

The MRSF and trust accounts similarly lacked integration into an overarching coherent economic and development framework.

The economic objective of the MRSF was to reduce the impact of mining revenue volatility on the budget. While trust accounts have essentially had the same macro-economic objectives, they have also sought to improve spending quality.

Any new SWF objectives must include:

- saving money from the windfall gains experienced during the price peaks of commodities;
- reducing exchange rate volatility;
- dampening pressure on the exchange rate to appreciate;
- smoothing government revenues out, over time; and
- containing inflationary pressure.

Achieving these objectives has, over the previous 30 years, remained allusive. Poor governance, corruption, low public sector capacity and a lack of transparency and accountability, as previously noted, have all led to the misappropriation and ineffective use of funds. A lack of central guidance and integration into PNG’s broader development framework has seen funds directed toward ill-advised, inappropriate and unmanageable programs.

Given PNG’s historical record the question remains; how can PNG design a SWF that creates incentives for politicians to implement long-term sustainable outcomes rather than garner short-term political support?

### **1.2 Economic Considerations**

Commodity booms have had a destabilising effect on PNG’s fiscal and monetary policies throughout the 1990s and the last decade. Expectations that resource revenues would become permanent structural features of PNG budgets never materialised. More importantly resource revenues have never led to a structural transformation in the economy. The long-term economic objective of a SWF is to translate the short-term destabilising effects of a commodity boom into long-term structural changes in the economy.

Given the quantum and its long-term nature the appropriate allocation of resources could mark the beginning of a permanent structural change in the economy. This has implications for

the long-term sustainability of non-resource fiscal deficits and the ability to invest in recurrent expenditure (particularly health and education).

As the economy becomes less dependent on resource revenues and more diversified, the government will be more able to sustain recurrent expenditures, such as those associated with health and education. In the short- to medium-term, more immediate objectives need to be met. The short- to medium-term objectives must include macro-economic stabilisation, development and improved service delivery.

A macro-economic stabilisation objective contains an element of development growth within its policy framework. Creating a stable inflation rate, exchange rate and revenue base increases business certainty and confidence and encourages investment in the economy. Encouraging private sector development is a key step in encouraging broad-based participation in economic growth.

In its 1987 Development Report, the World Bank states ‘high inflation increases uncertainty, discourages investment and technological change, distorts relative prices, and stands in the way of sustainable growth’.

Stable government revenues reduce the incidence of ‘go-stop’ projects. This increases the confidence of the public sector to develop quality long-term programs, knowing they will be supported up by an appropriate level of financing. Furthermore, the cost of shutting down lumpy investment projects and other essential public expenditures during down-swings tends to be high.

It is generally accepted that a stable macro-economic environment plays a key role in the development of the private sector and sustaining high levels of economic growth. While macro-economic stability alone is not sufficient for economic growth it is necessary. Economies that have pursued poor macro-economic policies including high inflation, large budget deficits and misaligned exchanged rates have performed worse in terms of economic growth.

However, a narrow approach to development based on low-inflation targeting and fiscal balance has failed to sustain higher growth rates because it did not pay enough attention to the factors that determine capital formation, productivity and the full and efficient utilisation of productive capacity (United Nations, 2008).

Resource extraction is indifferent to keeping the resources under the ground (in which case the return is the expected rise in future oil prices) and getting a market rate of return on its sale (Hotelling Rule for efficient depletion). Extracting and selling resources amounts to running down capital, unless the receipts are fully reinvested in financial, physical or human capital (Hartwick Rule) (Helmut 2009).

Hamilton *et al* (2005) found that that no country with resource rents higher than 15 percent of GDP has followed the Hartwick Rule. Furthermore, if resource rich countries *had* followed the Hartwick Rule (including Venezuela, Trinidad and Tobago, and Gabon) they would all be as wealthy as South Korea, while Nigeria would be five times as well off as it currently is (*ibid.*). In

some countries that have followed the Hartwick Rule, such as Chile and Mexico, growth in produced capital is completely offset by resource depletion.

### ***1.2.1 Expenditure Quality (Allocative and Operational Efficiency) Reforms***

There are two sides to the resources management equation. Firstly, how are revenues to be managed from payments all the way through the budget process? Secondly, once the revenues are placed into the budget, how are revenues to be expended? It is the second part of the equation that must now be developed before revenues from the resources sector are disbursed from a SWF.

The rapid scaling up of investment in a country with a very limited capacity to train and hire skilled labour, build new infrastructure, or manage large-scale public programs may result in bottlenecks leading to rising unit costs, and a falling quality of service delivery (Bourguignon and Sundberg 2006).

While the availability of capital is important, simple increases in investment do not automatically produce growth. Exceptionally high investment levels in centrally planned economies do not, as a rule, result in sustained growth. Similarly, increased resource allocation to education by itself does not necessarily lead to growth. What matters is not just the amount of resources, nor the destination of resources, but how well the resources are used. In other words, it is the quality of investment that matters (World Bank 2008)

PNG has four years to improve the capacity of its government's institutions at all levels. A program to improve the ability of the government to design, implement and monitor programs through transparent and accountable means and mechanisms must be started. This would require a public expenditure review that would also pick up reforms that were not implemented from previous reviews, before PNG LNG revenues could be disbursed.

This review would inform any analysis into the absorptive capacity of the PNG economy with the findings being integrated into the draw down provisions.

## **1.3 Fiscal Policy**

Integrating the SWF into the Medium Term Fiscal Strategy (MTFS) will help to underpin prudent and responsible fiscal policy. Adherence to a prudent fiscal strategy will improve the chances of a stabilisation or saving fund achieving their objectives.

International experience shows that SWFs will not by themselves control spending and deficits. A MTFS and a debt management strategy that has whole-of-government support and which is integrated into the broader macro-economic framework is required to maintain expenditure control.

Given the importance of a broader fiscal framework and the long-term objective of broadening the economic base of the country it may be prudent to target the non-natural resource deficit. For example, Norway's fiscal guidelines require that the non-oil government budget

deficit be equal to the long-run real return on the assets of the Government Petroleum Fund. Introducing the Norwegian framework into PNG needs to be carefully considered, particularly given the very different nature of their economic and political systems. Norway's success may not be replicated, given PNG's previous experience and its current institutional framework.

Moreover, Norway's political system is dominated by a few parties that are dependant on party reputation combined with highly consensus-oriented, transparent and accountable parliamentary institutions which provide incentives for long-term decision-making on expenditure patterns.

As noted by Eifert, Gelb and Tallroth (2002), the conditions for a mature democracy include:

Bureaucracies are competent and relatively insulated; professional judicial systems foster depersonalised functioning of markets and reasonable stability in rules. State investment tends to complement, rather than substitute for, private investment; independent risk-ratings are taken seriously as indicating the prospects for investors. These features would facilitate the efficient use of resources, including oil rents, and help to contain rent-seeking behaviour.

Norway and Alaska share these attributes and they have been key elements in their ability to effectively manage their resource wealth.

Where patronage networks override political reputations as means for obtaining and sustaining political power, expenditure policies have short time-horizons and prioritise sustaining short-term political support over long-term economic reform. This, combined with weak institutions of transparency and accountability, serve as disincentives for restraint on fiscal expenditure (Asfaha 2007).

These attributes are more likely to be found in developing countries with poor records for effectively managing resources.

Chile has been successful in implementing counter cyclical policies, in part due to the strength of the Finance Minister to resist calls for greater expenditure, as copper prices reached their peak. It is precisely these spending pressures that will need to be resisted by PNG's political decision makers.

Furthermore, the success of Chile's fiscal rules and funds has in no small part been attributed to political commitment and good institutions (IMF 2007). Expectations regarding the ability of PNG's policy makers to withstand external and internal pressures must be integrated into the SWF design.

Chile has sustained two decades of economic stability and rising living standards owing to its strong institutions and sound economic policies. PNG has only just begun to develop and implement sound economic policies and its institutions may require further development.

Chile maintains two funds: the Pension Reserve Fund (PRF) established in 2006, and the Economic and Social Stabilization Fund (ESSF), which replaced the Copper Income Stabilization Fund (CISF) in 2007. Chile's fiscal policy requires a structural fiscal surplus over the cycle with the objective of funding a minimum pension and stabilising the economy against movements in the copper price.

### ***1.3.1 Absorptive Capacity***

There are three broad categories for measuring absorptive capacity. These include:

- quantitative constraints — skilled workers to deliver services, physical capital and infrastructure;
- macro-economic constraints — productive capacity; and
- institutional constraints — management of budget, regulatory and legislative institutions, and quality of service delivery to frontline users.

Any measure of absorptive capacity must be cognisant of the above factors, yet flexible enough to move with the business or commodity cycle. That is, the measure must acknowledge that absorptive capacity is a dynamic variable and its objective is to reduce the pro-cyclical elements of government expenditure.

In determining where resource will be allocated the real (risk adjusted) rate of return for international financial products, compared with domestic investment in social and human development projects, must be carefully balanced. The inability of public institutions to develop quality social policies, and a lack of program monitoring and auditing, greatly reduces the available set of domestic investment options.

Therefore, it is not just the absorptive capacity of the macro-economy that is important but also the absorptive capacity of PNG's institutions. Sub-national governments currently lack the capacity to invest transfers in an efficient and effective manner. As such, funds should only be allocated upon the implementation of reforms that enhance the transparency and monitoring of projects.

Creating a saving fund for future generations would be prudent until the capacity of national and sub-national governments has been sufficiently developed. Differences between the federal and sub-national governments' absorptive capacity must also be taken into consideration.

The PNG MTFS notes:

Government's institutional capacity can be improved by increasing accountability, reforming management practices, removing unnecessary functions or numbers of employees in public bodies, and limiting the role of Government to services which the private sector cannot provide (GoPNG 2008).

Where there is a lack of strong evidence that these outcomes have been achieved, there remains a strong case against increasing expenditures at a rate which is inconsistent with the rate of institutional reform.

## **SECTION 2: DESIGN ISSUES**

### **2.1 Introduction**

Designing an appropriate SWF, based on the Sovereign Wealth Fund Generally Accepted Principles and Practices (Santiago Principles), is an essential first step to building a solid foundation for utilising revenues appropriately.

Given revenues from the PNG LNG project are expected to be substantial it is recommended that the funds be held in two offshore accounts. The first fund, a saving fund, will receive revenue from the PNG LNG project and be earmarked for various expenditure items such as education, health and infrastructure in the budget. The second fund, a stabilisation fund, will receive revenue from other resource projects and will not be earmarked.

Stabilisation funds do not necessarily lead to more restrained expenditure, increases in expenditure quality, or lower debit accumulation. PNG's recent history has given some reason for optimism, with some proceeds from the commodity boom being used to pay down debt. However, this may not be sustainable in the long-term and recent reports into trust accounts indicate that institutional reform is a long way from delivering quality expenditure.

Therefore, PNG should maintain two funds. The first fund (the Future Fund) will have a long-term savings objective and the second fund (a stabilisation fund) will have a macro-economic stabilisation objective. The first fund imposes a great degree of restraint on expenditure, while the second fund allows for a high degree of expenditure flexibility. The funds can be used for development expenditure while at the same time contributing to macro-economic stabilisation.

A third option, a hybrid fund, which could operate without a balanced budget framework (one that is politically possible in PNG) cannot, by itself, achieve all the objectives set out in the Joint Discussion Paper (GoPNG 2010). Norway's successful transition of oil funds to quality expenditure is a compliment to hybrid funds, however, this is not likely to translate well into PNG, given the current political and economic conditions.

Evidence suggests that it is the ability of resource-rich countries to prevent their governments from altering the budget or rules of the SWF that determines if they can achieve fiscal discipline and inter-generational equity through stabilization and/or future funds (see Fasano 2000 and Weinthal and Jones Luong 2006). The establishment of SWF, as noted by the IMF, does not guarantee prudent financial management or intergenerational equity and will ultimately be ineffective if its institutions are unable to enforce strict observance of the funds rules.

PNG's institutions are not yet sufficiently developed. Therefore, some component of the expected resource revenue must be decoupled from government expenditure. In this regard it is proposed that the revenue from the PNG LNG project acts as a future fund by legislating draw down provisions that maintain its real capital value.

### 2.1.1 Future Fund

The first offshore SWF would hold proceeds from the PNG LNG project for long-term development. This fund would be associated with the people and their ownership of the project. If the PNG LNG project is well supported and understood by the general community, this will act as another oversight mechanism against financial mismanagement. A SWF containing only revenue from this project will have to be spent for the benefit of people and maintained as a saving fund for future generations.

**Figure 1: Future Funds**



The fund would be capital protected through disbursements being equal to the expected real long run return on assets, to be withdrawn at a period when excess capacity exists in the economy and where quality investments are available. The future fund would only be invested internationally, be restricted from purchasing government debt, and could not act as collateral against any borrowings by the Government.

This first fund is in recognition that stabilisation funds are not saving funds and that currently the government's capacity to undertake quality investment is not sufficiently developed to warrant a large inflow of funds.

A future fund has a stabilisation element in that during periods of above-average commodity prices, real capital accumulates in the fund, during periods of below-average commodity prices these funds are disbursed back into the economy. Funds will be disbursed into the economy at a rate that maintains the fund's real capital.

The amount of development expenditure in the short-term would be equal to the real rate of return on the capital. The rules for withdrawal would be reviewed every five years in line with the development of the PNG Medium Term Development Strategy (MTDS). If development needs are greater and PNG institutions stronger, the rate of withdrawal could be increased.

Disbursements from the future fund would be earmarked for investment in the budget. That is, investment directed towards financial, human and physical capital rather than recurrent expenditure. However, some capital items do incur a recurrent expenditure element and this must be taken into account when developing a project.

Earmarking the saving funds for investments in capital development is consistent with the MTFS which states:

...because mineral revenue is derived from once-only extraction and sale of PNG's non-renewable resources, it should be used for investments, preferably in line with the MTDS priorities, that will benefit future generations as well as this one (GoPNG 2008).

The fund would be created through constitutional or organic law. Separating the funds from other commodity revenues will provide a sense of ownership to the broader community and enhance transparency with regards to the LNG project. This is consistent with the National Goals of PNG for ‘safeguard[ing] the national wealth, resources and environment in the interests of not only the present generations but also future generations’ (GoPNG, ‘Constitution of the Independent State of Papua New Guinea’).

The portfolio would have an objective of maximising the fund’s returns over the long run. The benchmark return used would be higher than that of the stabilisation fund with a more aggressive assets allocation and a higher weight of growth assets.

Botswana’s successful bid to avoid the resource curse was built upon a whole range of sound macro-economic and sectoral policies, underpinned by a generally positive political economy. Botswana’s absorptive capacity for public investment was a real concern to policy makers, who were prepared to hold resource revenues offshore rather than engage in wasteful investments (Sarraf and Jiwaji 2001).

Holding the returns from the PNG LNG project offshore rather than engaging in wasteful investments will protect the resources of future generations and allow PNG’s institutions to develop better processes and accountability mechanisms.

### **2.1.2 Stabilisation Fund**

It is proposed that the second offshore SWF will be a stabilisation fund. While all PNG LNG funds will flow into the future fund, budget surpluses and commodity revenues from other resource projects will be placed into the stabilisation fund.

**Figure 2: Stabilisation Fund**



To achieve its objective the stabilisation fund would be invested offshore. Investing offshore mitigates against exchange rate appreciation, inflation and the narrowing of the economic base.

Disbursements would not exceed the absorptive capacity of the economy, would be countercyclical and would not be earmarked, thus increasing the flexibility of the fund’s revenues when allocated in the budget. This flexibility provides a more politically sustainable solution.

The stabilisation fund would fit within the current framework for addressing revenue volatility by allowing the 4 percent rule, as set out in the MTFS, to apply for withdrawals. This is pending the modelling being undertaken into PNG’s absorptive capacity. Given PNG’s recent experience with the MTFS 4 percent rule, some strengthening of the withdrawals rule would be

warranted if excessive draw downs are to be avoided. It could be that the stabilisation fund is linked to the non-resource deficit, although this would require further research.

This fund would not require an amendment to the Constitution although this possibility should be further explored by the relevant authority.

Relative to a future fund, the stabilisation fund would have a shorter investment horizon, invest in more liquid assets and have a more conservative investment strategy. This would mean a low benchmark return would be used. An additional mandate may include that the Board of the fund should invest in such a way as to minimise the probability of capital losses over a 12 month horizon.

### ***2.1.3 Commonalities between the Future and Stabilisation Fund***

Because the future and stabilisation funds are different and have different goals and objectives, it is difficult to generalise about the investment strategies of SWFs as a class. While there are many differences in how each fund accumulates, invests and disburses funds there are a number of areas where commonality would be preferable. For example, the same board that has oversight of the saving fund would also be responsible for the operations of the stabilisation fund.

Governance, reporting, monitoring and transparency arrangements would also be the same for both funds and preferably compliant with some independently set, international standard.

The government would be restricted from borrowing against each of the funds or using either as collateral for loans. This is particularly important given that increased borrowings and savings will not change the overall balance of the budget.

## **2.2 Objectives of a SWF**

The objective of economic policy in the long-term must be to broaden the base of the economy and not just continue to sterilise resource revenue. This appears to be missing in the Joint Discussion Paper (GoPNG 2010) particularly given the long-term nature of PNG LNG. The decoupling of commodity price cycles and PNG's economic cycle should be a long-term objective.

A focus on the macro-economic stability objectives in the first instance provides an appropriate framework for long-term economic and social development. PNG's short-term requirements of greater human and physical capital will be linked to the accumulation and withdrawal rules of the stabilisation and future funds.

To achieve macro-economic stability (avoiding fluctuations and appreciation of the exchange rate) in a less costly manner (profit maximising) the fund should be held offshore. The benefits of holding the fund offshore include:

- avoiding a large appreciation of the exchange rate helping to insulate against ‘Dutch Disease’ where the competitiveness of traded non-resource sectors (manufacturing, agriculture and services sectors) falls;
- increasing access to a broader range of financial products and management skills;
- maximising the risk adjusted rate of return for the fund’s investments; and
- reducing the opportunity cost of holding excess foreign reserves.

Creating a financing fund increases fiscal flexibility, although the degree to which it performs stabilisation or savings functions is dependent on the overall fiscal framework.

Using revenue from the stabilisation fund to finance the non-resource fiscal balance provides a direct connection between long-term development goals and short-term development needs. Furthermore, the non-resource fiscal balance is a key indicator in resource dependent countries which provides some measure of its vulnerability to price volatility.

Transfers to the central government budget, in the long-term, from the stabilisation fund to finance the non-commodity budget deficit could equal the expected long-term real rate of return of the fund. This maintains the real value of the capital in the stabilisation fund making the economy more resilient to other exogenous shocks.

When PNG commodities have been exhausted, and in order to sustain a non-mineral fiscal deficit, PNG will need to accumulate sufficient assets so that the return on those assets is large enough to finance the deficit. A policy that finances the non-mineral fiscal deficit from drawing down capital is sustainable. In essence it is government wealth, rather than income flows, that determine the sustainable level of non-mineral deficits.

The MTFS commits PNG to restrain the non-mineral fiscal deficit to 4 to 8 percent of GDP in 2008–2012 and to restrict spending from accumulated mineral revenues to not more than 4 percent of GDP. While in the short-term the PNG budget is heavily dependent on commodity revenues, any rapid transition to a “pure” Norwegian model would either involve a period of radical cuts in spending or large increases in taxation, neither of which would be desirable.

What is stated in the preceding paragraph is akin to the bird-in-hand rule; that is, spending decisions are only predicated on the assets already in the hand. Applying the bird-in-hand rule would mean either a very conservative approach to saving or running a non-commodity fiscal surplus. This rule operates as a lower bound for determining a sustainable non-commodity deficit.

While there are many trade-offs regarding how best to use revenue from non-renewable resources, PNG must save some of its revenue until the government is able to implement responsible public spending and reduce the non-mineral fiscal deficit to a sustainable level.

### **2.3 International Experience with SWFs**

There are lessons to be learnt from international experience. Many countries including Australia, Canada and South Africa have used their natural resource endowments to build broad-

based and sustainable economic growth. This in turn has led to the rising living standards of the citizens of these countries.

### **2.3.1 Timor Leste Wealth Fund**

Timor Leste's massive inflow of oil revenue has seen its fund assets increase by \$5.0 billion from 2002 to 2007. Yet the levels of poverty continued to grow.

The Timor Leste Banking and Payment Authority transferred \$512 million to the government in 2009 for budgetary purposes. Reflecting its very conservative investment mandate, the return in 2009 was just 0.6 percent.

Bart Philemon highlighted in his reply to the 2008 PNG Budget that a total of K4.67 billion in public money was sitting in various trust accounts 'doing nothing' (Batten 2008). PNG must place its wealth where it is able to achieve its maximum rate of return subject to risk. It is not an option to invest in overly conservative funds when there is such a high imperative to develop.

Investing PNG's commodity revenues offshore in larger and more developed capital markets will give PNG higher returns than would be achieved if the funds were invested domestically.

### **2.3.2 Kiribati Revenue Equalisation Fund**

The Kiribati Revenue Equalisation Fund (KREF) was very successful amid a culture of strong fiscal management. Withdrawals were kept to a minimum and surpluses reinvested in the KREF. In a flagrant affront to what is considered best practice for resource funds (RF), the Government of Kiribati is both the trustee and beneficiary and has complete control over the KREF. There are no specific rules safeguarding the value of the KREF and no dedicated legislation governing its use. The KREF is, however, fully integrated with the budget (Gould 2010).

More recently large draw downs were largely driven by poor expenditure decisions during the 1990s, when temporary revenue increases from fishing licences were used to grow the public service and increase subsidies to public enterprises (*ibid.*). The KREF has fallen from approximately A\$6000 per person to A\$4000 since 2006, due to both increased draw downs and the effect of the Global Financial Crises (GFC) on lowering equity markets.

PNG's SWF must be able to withstand a 'stress test' such as the GFC and yet remain flexible enough to allow the government to address external shocks.

### **2.3.3 Alaska's Permanent Wealth Fund**

Alaska's sovereign wealth fund is a permanent fund (called the Alaskan Permanent Fund or APF) created by a constitutional amendment that sets aside at least 25 percent of oil revenues, the principal of which may only be used for income-producing investments.

Only realised Fund earnings may be spent, consisting of stock dividends, bond interest, real estate rent and income lost or made by the sale of investment assets. All investments either domestic or international must be expected to produce income with an acceptable level of risk.

A governor appoints a board of six trustees to set policies for the Alaska Permanent Fund Corporation (APFC).

The Board reviews, adopts and monitors an asset allocation that achieves a five percent real (above inflation) rate of return in accordance with the Prudent Expert Rule. Alaskan law provides that the APFC Board be comprised of four public members, the Commissioner of Revenue and one additional cabinet member chosen by the Governor. Public members serve staggered four-year terms.

The Board is currently considering restricting access to the fund even further by recommending a Percentage of Market Value (POMV). A POMV would limit spending to 5 percent of the Fund's total market value. The POMV rule, combined with the investment strategy, will maintain the Fund's real capital value.

The Alaska fund has the overwhelming support of the Alaskan community with the APF distributing a portion of the oil revenue to state residents. From 1982 to 2001, the Fund paid US\$11 billion to citizens. In 2001 alone every Alaskan resident received about US\$1850 from the dividend program.

Capturing the interest of PNG citizens in the funds investment and operations activities could be a key component of buffering the fund against political mismanagement and interference. Could a direct payment to its citizens — although the distribution of such a dividend to all citizens may prove challenging — be a lesson for PNG on how best to utilise the public interest in a SWF?

Under the PNG Constitution, organic laws enact and provide greater detail on matters already authorised by the Constitution (they are “organic” in the sense that they are organically connected to the Constitution). These laws are, in general, as difficult to make and to change, as the Constitution itself. Giving PNGs' SWF a constitutional status will make it very difficult for one entity to unilaterally alter, amend or waive the law. An amendment to the Constitution may provide a framework for the establishment of the fund including:

- how much will be placed in the fund;
- where the funds are to be invested; and
- where the funds are to be allocated.

The PNG Constitution prescribes three distinct majorities for amendments to different sections of the Constitution. Most require a two thirds absolute majority, but some require an absolute majority; that is, more than 50 percent of members, while 21 sections require a three quarters absolute majority.

## 2.4 Operational Rules

### 2.4.1 *Withdrawal Rules*

Sustainable draw down rules (of a future fund) can be linked to the fund's investment strategy, which details the risk and return profile for the portfolio and explicitly highlights the extent to which the fund's capital is protected.

Draw down rules that allow for higher withdrawals than the fund's real rate of return reduce capital. In contrast draw downs that are lower than the fund's real rate of return accumulate capital. In essence, rules can be developed that protect the real value of the fund or a proportion of the fund for future generations.

Historically PNG governments have lacked the ability to abide by specific fiscal policy rules. In this circumstance it is recommended that rigid rules be imposed on the future fund to control government expenditure and reduce policy discretion. However, this should not be the case over the life-time of the PNG LNG project.

It is acknowledged that the government has legitimate expenditure needs and therefore this paper recommends that the stabilisation fund be used across all budget items.

While the Joint Discussion Paper (GoPNG 2010) acknowledges the difficulty of indentifying permanent and temporary components of commodity prices, this should not affect the operation of the PNG LNG future fund. If the stabilisation fund is to adopt rigid rules for the quantum that can be withdrawn, this can be counter balanced through flexible expenditure rules.

When significant external shocks occur, rigid rules can place restraint on government expenditure while policy makers are given time to develop an appropriate strategy. That is, it gives government institutions time to evolve more developed structures and processes to deal with the external economic shock.

Rules for both funds should be reviewed and/or updated every five years to allow a degree of flexibility with regards to developments in the economy and government institutions. Five years allows for institutions to develop significantly improved capabilities and absorptive capacities to better redistribute SWF through the budget process.

### 2.4.2 *SWF Scope and Deposit/Withdrawal Arrangements*

Broadening the scope of the SWF to include revenues from other resource projects will strengthen the SWF macro-economic and fiscal stabilisation function. Funds from existing and new mining projects should be placed into the stabilisation fund to promote the counter cyclical and macro-economic stabilisation objectives of the government.

As noted above, the stabilisation fund will be fully integrated into the budget process. The Joint Discussion Paper (*ibid.*) notes that 'such integration in having one overarching SWF allows for unified control and prioritisation of Government spending and their financing and helps

ensure that all expenditures are subject to appropriate consideration through the Budget process'. It is not necessary that only one fund exists for all mineral revenues to be integrated into the Budget.

Two funds designed with different purposes can be integrated into the Budget without a loss of fiscal coordination and control. Having two different funds with separate draw down rules does not make the expenditure of those funds inconsistent with the government's overall fiscal stance.

This policy is designed in full recognition that it is critical for drawn downs from the SWF to be integrated into the Budget process.

### ***2.4.3 Asset Portfolio and Risk Management***

The SWF investment strategy must be to maximise financial returns subject to an appropriate risk. This is best achieved by investing internationally in a broad range of assets. Asset management should be closely aligned with the objectives of funds. For example, stabilization funds serve a more immediate function than long-term future funds; they tend to be more conservative in their investment decisions, focusing on fixed income rather than equity investments (Ziemba 2007).

Facilitating the Budget's cash flow management imposes a higher degree of liquidity requirements on a SWF. One example is the Australian Future Fund, which was designed to make provision for unfunded superannuation liabilities. The investment mandate of the Australian Future Fund, including the benchmark return, is outlined below:

The Future Fund Board of Guardians is required under section 18 of the Act to seek to *maximise the return earned on the Fund over the long-term* [emphasis added], consistent with international best practice for institutional investment and subject to its obligations under the Act and any directions given by the responsible Ministers under subsection 18(1) or subclause 8(1) of Schedule 1 of the Act.

The Board is to adopt an average return of at least the Consumer Price Index (CPI) + 4.5 to + 5.5 per cent per annum over the long-term as the benchmark return on the Fund (Commonwealth of Australia, 2006).

While the objective of other Australian nation-building funds — the education, infrastructure and health funds — is to:

Maximise the return earned on the Fund, consistent with international best practice for institutional investment and subject to its obligations under the Act and any directions given by the responsible Ministers under the Act.

The Board is to adopt a benchmark return on the Fund of the Australian three month bank bill swap rate + 0.3 per cent per annum, calculated on a rolling 12 month basis (net of fees).

In targeting this benchmark return, the Board should invest in such a way as to minimise the probability of capital losses over a 12 month horizon (*ibid.*, 2009).

The different benchmark returns are explained by differing objectives and time horizons for the future fund and the national building funds.

## **2.5 Governance, Accountability and Transparency**

Applying world's best practices to domestic governance, accountability and transparency is the key to designing a successful fund. In this regard, transplanting international rules, regulatory bodies and systems, without regard to the circumstance that operate domestically, is unrealistic and potentially damaging.

So, while importing structures may not be appropriate, implementing the Santiago Principles is highly desirable. PNG should seek to rate as highly as possible in transparency and accountability indexes. For example, the 'Santiago Compliance Index' uses publicly available materials to assess each signatory's compliance to each of the 24 principles.

### **2.5.1 Governance**

To ensure compliance with the national revenue law, an independent multi-stakeholder oversight and monitoring committee or board should be responsible for managing the fund. The board should be composed of a broad section of the PNG society to provide the community with a sense of ownership.

A possible board could comprise members of the business, academic and bureaucratic communities. Each section of society would be represented in equal measure. For example, the board could be composed of two members from the business community, two members from the broader community, two members from academia and two members from the public service (preferably the Bank of PNG and/or Treasury).

The board would be appointed by the Central Bank of PNG.

### **2.5.2 Accountability**

The governing body and its managers must be independent of all outside influence and only be accountable in terms of their ability to achieve their explicit, stated objective.

Developing and articulating a clear policy purpose for the disbursement of funds helps to reduce the potential they are used for unclear or undefined purposes. While earmarking revenue reduces budget flexibility, this is less of an issue when the revenue is integrated into the broader fiscal economic and development frameworks. That is, expenditures are earmarked in a way that integrates with the medium- or long-term development strategy, in this case guided by the PNG Medium Term Development Strategy. For example, 40 percent of the fund's disbursement is earmarked for infrastructure, 30 percent for education and 30 percent for health.

Previous experience in PNG has shown that a lack of improvements in key development indicators has not necessarily been due to a lack of revenue. The public sector must implement a system to check the quality of government expenditure before any funds are allocated. That is, the public sector must undertake a review of its procedures and processes in designing, implementing and auditing expenditure. Preferably, such a review should be completed no later than 2014.

### ***2.5.3 Transparency***

Transparency is without doubt a desirable quality, however, if it does not lead to fiscal restraint it has achieved little. Minimal SWF transparency masks SWF investment activity and can obscure governance and risk-management problems within the funds. Limited disclosure makes it difficult to assess the management and governance of the funds and therefore difficult to identify mismanagement or corruption by fund managers (Weiss 2008).

Since the GFC SWF investments have been closely scrutinised. The principal reasons include their size, lack of transparency, potential to disrupt financial markets, and the risk that political objectives might influence their management. Given the estimated size of the proposed PNG SWF, it does not appear likely to be identified by a foreign government for close inspection.

External audits must be performed by independent and internationally recognised accounting firms.

## CONCLUSIONS

Studies show that stabilisation funds cannot on their own address the problems associated with revenue volatility. The key determinant for the success of resource funds is the political-economic environment in which they operate.

As Kalzuzhnova and Kaser (2005) observe, there is a degree of reciprocity between a government's tax collection and the social services it provides to the business and the household sector; such reciprocity is often ignored by a government that exacts its dues from 'gifts of nature'.

Giving PNG's resource fund constitutional status will make it very difficult for any one entity to unilaterally alter, amend or waive the law.

That is, an amendment to the Constitution may provide a framework for the establishment of the fund including:

- how much will be placed in the fund,
- where the funds are to be invested; and
- where the funds are allocated.

Furthermore, the establishment of an independent multi-stakeholder oversight and monitoring committee or board helps to ensure compliance with the national revenue law. It also provides the community with a sense of ownership and acts as an oversight function.

The rules for accumulation, investment and draw down of funds must be developed in a manner consistent with nation-wide multi-stakeholder consultations. This process is more likely to provide a set of rules that are ultimately sustainable.

The PNG Government must also build the capacity of the public service to develop and implement programs that achieve the goals of the Medium- and Long-Term Development Strategy. Returns on economic and social expenditure will only increase if development priorities are well developed and implemented.

Under economic pressure the rules protecting resource revenues have historically failed, and the political tide has largely succeeded to the detriment of PNG. The framework and the institutions that are responsible for the resource fund and spending those funds will determine if PNG succeeds or fails to develop from the proceeds for its latest boom.

In broad terms, to overcome what has historically been low (and sometimes negative) social and economic returns from resource revenue, policy makers must design appropriate safeguards against poor public policy choices, a lack of governance, transparency and accountability, rent-seeking behavior and corruption. The Future Fund is designed to safeguard PNG's resources until such a time that this occurs.

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PNG has been blessed with a third chance to develop using its resources but nothing is forever and resource booms are no exception.

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