



**MANAGING FUTURE PETROLEUM REVENUES
AND
ESTABLISHMENT OF A FISCAL RULE
AND
A SOVEREIGN WEALTH FUND**

Green Paper

August 8, 2018

Government of the Co-operative Republic of Guyana

CO-OPERATIVE REPUBLIC OF GUYANA

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SECTION I: Introduction

1. This Green Paper is being issued by Government to present preliminary proposals to stimulate discussion.¹ It details specific issues, and then points out possible courses of action in terms of policy and legislation.²
2. This Green Paper on petroleum revenue management and establishment of a fiscal rule and a sovereign wealth fund (SWF) is prepared at the request of His Excellency President David Granger. It is intended to capture key issues for consideration, including the mechanisms to ensure sustainable use of petroleum revenues to achieve a diversified and green economy, with a specific predisposition to avoid mismanagement of the national patrimony (i.e. “natural resource curse”). Cabinet has offered its comments and related amendments, and authorised the laying of the Green Paper in the National Assembly. Feedback will inform the next stage of the process, which is the presentation of the sovereign wealth fund legislation to the National Assembly, before end 2018.
3. Section I is structured to provide a background relating to petroleum exploration activities in Guyana and the genesis of the SWF, with specific mention of the technical support received from international experts. It then goes on to discuss further key considerations which elaborate the necessity and benefits of establishing a SWF. Special attention is placed on discussing the Dutch Disease, the *presource curse* and the resource curse as key risks associated with natural resource revenues of this magnitude. Section II will discuss the mechanics of the proposed SWF for Guyana, including the fiscal rule, and will be followed by Section III – concluding remarks – which includes issues for consideration.

¹ Oxford Living Dictionaries. *Green Paper*. Retrieved from <https://en.oxforddictionaries.com/definition/green_paper>.

² A green paper is commissioned from the relevant department if the Government feels that there is an area where new legislation is required, or existing legislation needs to be re-vamped. It is a tool for stimulating discussion.

Initial Capacity Building for Petroleum Revenue Management

4. In 1958, British Guiana granted its first offshore concessions, and in the following decade, further licenses for onshore exploration were granted.³ More recent issuing of exploration licences resulted in a first discovery of petroleum that was announced on 20th May, 2015, by the international oil company (IOC), ExxonMobil (EEPGL - Esso Exploration and Production Guyana Limited) in partnership with Hess Corporation and CNOOC Nexen. In 2017, the IOC announced that by 2020, first oil would flow. Recent pronouncements have indicated a more precise timeline, 1st March, 2020, with a phased scaling up of production from the Liza 1 well to 120,000 barrels per day (bpd). By 2025, depending on the pace of extraction as determined by Government, oil production from the Liza 2 and Payara wells could see output rising to several hundred thousand barrels per day.⁴ This would create a new and significant revenue stream for the Government and people of the Co-operative Republic of Guyana.
5. Recognising the need for prudent management of petroleum revenues, work on legislation to create a SWF commenced with the Ministry of Natural Resources, in late 2016, engaging the Commonwealth Secretariat (ComSec). The Government requested that the Oceans and Natural Resources Advisory Division (ONR) of ComSec assist in establishing a Natural Resource Fund (NRF). In 2017, the responsibility for concluding the legislation and piloting it through the National Assembly was handed to the Ministry of Finance (MoF).
6. A Cabinet Memorandum titled *Statement on Managing Future Oil Revenues and Establishment of a Sovereign Wealth Fund* was presented and discussed on 12th June, 2017. On 15th June, Cabinet endorsement of the establishment of such a

³ Van de Graaf, T., B.K. Sovacool, A. Ghosh, F. Kern & M.T. Klare. (2016). *The Palgrave Handbook of the International Political Economy of Energy*. United Kingdom: Springer.

⁴ At the time of writing, the IOC had announced its most recent discovery, Longtail – the eighth discovery of ten exploratory wells so far. Recent reports by energy consultants, including Wood Mackenzie and Rystad Energy, estimate production to exceed 500,000 bpd.

Fund was accompanied by its decision that it would be in the public's interest for a "green paper" to be published and presented to the National Assembly.

7. In December 2017, a Natural Resource Fund Working Group (NRFWG) was established to review and provide technical input into the draft SWF legislation. The NRFWG is led by the Ministry of Finance with participation of the Ministry of Natural Resources, Guyana Revenue Authority, Bank of Guyana, Audit Office of Guyana and Ministry of Legal Affairs. The ONR facilitated the NRFWG's review of the first draft of the SWF legislation, currently entitled the Natural Resource Fund Act (NRFA). Since then, the ONR has submitted a revised draft of the NRFA in January, 2018, which incorporated the NRFWG's comments; held debriefing sessions in March, 2018 with the NRFWG and the Minister of Finance, and later, with the Cabinet in April, 2018. Written comments were also sought and received from key development partners including the International Monetary Fund, the World Bank and the Inter-American Development Bank.
8. It is important to recall that, from the beginning, this administration, in its manifesto, championed good governance and the need for transparency and accountability in government. These remain core issues of the highest priority. These principles remain key tenets of good public financial management, which, in concert with demonstrated fiscal discipline, has resulted in stable macro-fiscal fundamentals in the economy. The NRFA is yet another indicator that the Government intends to be guided by prudence and fiscal rectitude.
9. The drafting of the NRFA also required critical work to explore options for a fiscal rule. The rule would outline the principles and requirements that will govern the amount that can be withdrawn from the NRF in any given year. Adherence to the fiscal rule will secure the sustainability of the NRF in the process, ensuring that it can fulfill the stated objectives. Given its importance, the Ministry of Finance has fielded multiple missions from the IMF, beginning with an in-country scoping mission, in the second half of 2017, and most recently, in March, 2018. The former focused on the need to strengthen capacity for the management of future

oil revenue, assisting in the design of a roadmap for fiscal reforms leading up to first oil, and related public financial management reforms. The latter mission served to quantify and model the terms of the existing production sharing agreement (PSA) from known and potential investment decisions within the Stabroek Block. These collaborations, technical support and capacity building initiatives have served to guide the development of the proposed fiscal rule, which is crafted to be macro-fiscally prudent and to minimise Guyana's risk exposure to the **resource curse**.

10. Cabinet received a presentation from the Fiscal Affairs Division (FAD) of the IMF, on 18th July, 2017. Further engagements with FAD resulted in a Technical Assistance Report, in November, 2017, which captured several areas for further capacity building and institutional strengthening. On 23rd March, 2018, a special session of the Cabinet Subcommittee on Petroleum received presentations from FAD and the Ministry of Finance, utilising the then available information from the published PSA.
11. The IMF's technical support included capacity building on the Fiscal Analysis of Resource Industries (FARI) tool, which allows Government to model future petroleum revenue streams, given data availability. In all technical assistance missions, the focus has been to sensitise and/or train a core team of government agencies on the use of the model (led by MoF) since its collective use, combined with timely availability of data, will be key, going forward. Further, Guyana has been deemed eligible, as of 2017, to access future support through the multi-donor funded Managing Natural Resource Wealth (MNRW) Trust Fund of the IMF and it is anticipated that this will allow support for ongoing validation of the model.
12. Having concluded these critical prerequisites, work on the green paper commenced, in April, 2018.

Why is a Sovereign Wealth Fund Necessary?

13. The finite nature and historical risks, such as Dutch Disease (elaborated in detail in the following subsection) and resource curse, associated with natural resource revenues of a significant scale, make it incumbent on its custodian, that is, the Government, to ensure its sustainable use to support both near term and long term national development, and future generations. Government recognises the importance of youth in shaping Guyana's future, and the imperative of providing a secure future for their children and their children's children, long after petroleum resources are exhausted. Dependence on petroleum revenues has the potential to cause three major problems:
 - i. **unstable revenue and, by extension, unstable government spending**, which would negatively impact the stability and scale of social programmes and interventions as a result of oil price volatility and variations in production quantities;
 - ii. **increased domestic demand resulting in increased inflation and significant exchange rate appreciation (Dutch Disease)**, leading to a loss of economic competitiveness and employment in the agriculture and manufacturing sectors. These are priority sectors to be strengthened as they act as catalysts for the development of a diversified economy that can withstand shocks during oil production and beyond the end of oil. The need to build capacity to absorb higher levels of investment, while restraining the potentially unsustainable growth of domestic demand, is critical to improving competitiveness; and
 - iii. **unsustainable increases in consumption and unfair benefit-sharing between generations**, as a result of ineffective management, given that petroleum revenues are finite and sizeable.

14. To mitigate the serious risks that arise in an economy due to petroleum revenues, a fiscal rule is needed to ensure that public spending is delinked from the volatility of oil revenues and prudently invested to guarantee an equitable intergenerational distribution of wealth in perpetuity, *ceteris paribus*.
15. A SWF has been considered, and in so doing, the Government recognises the importance of preserving some of the petroleum revenues and investing it in a transparent and effective manner. The SWF would serve to minimise the risk of Dutch Disease and other associated afflictions. The establishment of such a fund would secure and build the financial wealth of future generations, even as current generations benefit from scaled up budgetary investments. A recognised public financial management tool, namely a SWF – to be called a Natural Resource Fund, due to the source of funds⁵, in Guyana’s case – was identified as an effective fiscal mechanism which, together with an appropriate fiscal rule, can achieve the objectives of intergenerational savings and stabilisation. The development of an appropriate fiscal rule for withdrawals from the Fund would also serve to accommodate a front-loaded spending model via the National Budget in order to commence implementing key national development priorities.
16. Indeed, based on global lessons and principles of sound public financial management, it would be ill-advised to create parallel budgets using petroleum revenues, but rather, it is recommended that spending for national development be via the National Budget and preferably, under the auspices of a national development plan with measurable performance indicators and targets that ultimately hold the Government accountable to the people. Additionally, in order to ensure that the Fund is able to secure sufficient wealth for future generations and avoid Dutch Disease, it is strongly advised that financial market investments, utilising the fund’s principal, should be diversified and held externally.⁶

⁵ SWFs can have any name the country decides and can be linked to either source or function or other depending on what the Government wishes to convey. The important elements are the transparency and accountability of the Fund’s operations.

⁶ Rietveld, M. & A. Bauer. (2014). *Rules-based Investments for Natural Resource Funds*. New York, NY: Columbia University.

Avoiding the Presource Curse, Resource Curse and Dutch Disease – a National Imperative

17. The term Dutch Disease (see Figure 1) was coined by *The Economist*, in the 1970s, to describe the experience of the Dutch economy a decade after large gas reserves were discovered. The discovery resulted in significant increases in exports but, a decade later, unemployment started to increase because of falling corporate investment. The increase in exports resulted in an influx of foreign currency earnings, which led to an appreciation of the local currency. Other sectors of the economy then began to suffer due to their decreased competitiveness in international markets.

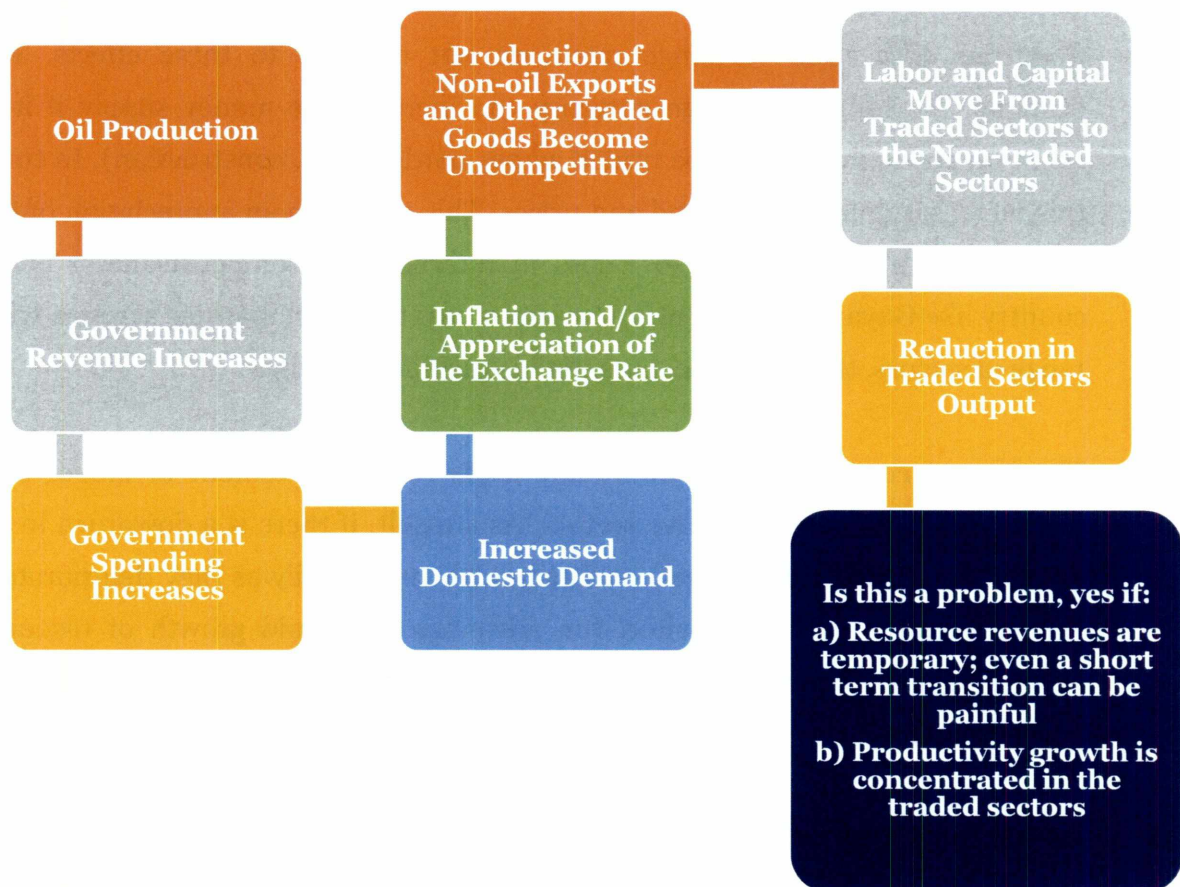


Figure 1 – The Mechanics of Dutch Disease

18. More recently, the *presource curse* has also become a recognised condition and is characterised by elevated expectations which can, in turn, drive suboptimal behaviour. For example, governments may be pressured by constituents and political ambition to embark on risky borrowing on the back of overly optimistic revenue projections. For example, Ghana, experienced major petroleum discoveries in 2007 and 2010. Despite having a good Petroleum Revenue Management Act, this did not prevent the Government from irresponsible borrowing to the extent that they saved approximately US\$500 million in its fund while borrowing US\$4.5 billion.⁷ This led to the IMF being requested to intervene, in 2015. This is in contrast to Tanzania, where Government was quite careful in borrowing and spending, and passed fiscal rules in 2015.
19. Countries with fixed exchange rates are not immune to these effects. For example, the influx of foreign currency can increase the money supply if it is spent on goods that cannot be traded across borders (e.g. construction). In turn, this increases domestic demand and prices. This results in an appreciation of the real exchange rate, leading to a loss in international competitiveness. For a country like Guyana that is seeking to gain access to export markets across a wide range of sectors, this would be, potentially, quite debilitating.
20. The loss of competitiveness eventually leads to the movement of labour and capital out of the uncompetitive sectors. As a result, if there is a downturn in oil prices, these sectors do not rebound as quickly or as easily as they deteriorated. Guyana must trade off the short-run advantages of rapid growth of resource inflows against the costs of permanently lagging behind in terms of economic development.
21. Establishing a sovereign wealth fund can help to protect Guyana against Dutch Disease by sterilising boom revenues and ensuring that export earnings from petroleum only enter the economy at a rate at which the economy can absorb

⁷ Cust, J. & D. Mihalyi. The Presource Curse, *Finance and Development*, Dec 2017 Vol 54 No 4.

these additional resources. The NRFA will mandate the formation of a Macroeconomic Committee, comprising leading experts from the public and private sectors, as well as academia, who will be responsible for assessing the economy's ability to absorb additional expenditures from petroleum revenues.

22. Excessive domestic spending can also result in overheating in the economy, where unsustainable growth driven by excess aggregate demand, in the short-run, is unable to be met by the economy's productive capacity inevitably, and, inevitably, leads to increased inflation. In the short-run, resources are over-employed but this cannot be sustained indefinitely. One way of preventing overheating is to scale the investment expansion, for example, developing infrastructure, in a constant pace, to **increase the economy's productive capacity, sustainably**. The evidence from many developing countries shows that a sudden large increase in spending on infrastructure, where capacity is limited, results in a large number of poor quality construction.⁸
23. In addition, even if the construction of new infrastructure does not increase domestic demand, the consequential increases in expenditure on operations and maintenance that follows likely would. The second round effect would result in increased domestic demand accompanied by only a limited increase in the economy's productive potential, **a result in symptomatic of Dutch Disease**. Further, the increased demand resulting from higher Government expenditure would likely occur even before new infrastructure were completed and available to support the operations of business enterprises. So, even if Government expenditure resulted in the construction of high quality assets, Guyana could still suffer from Dutch Disease type effects in the short term.⁹

⁸ Schwartz, G., M. Cangiano, B. Clements, R. Hughes, G. van Eden, T. Hansen...R. Wang. (2015). Making Public Investment Efficient. *Staff Report*. Washington D.C.: International Monetary Fund.

⁹ A Joint Ministry of Finance and World Bank Review of the Quality of Infrastructure Spending in Timor-Leste, Focusing on Roads, Irrigation and Electricity.

GDP Per Capita in Constant 2005 USD

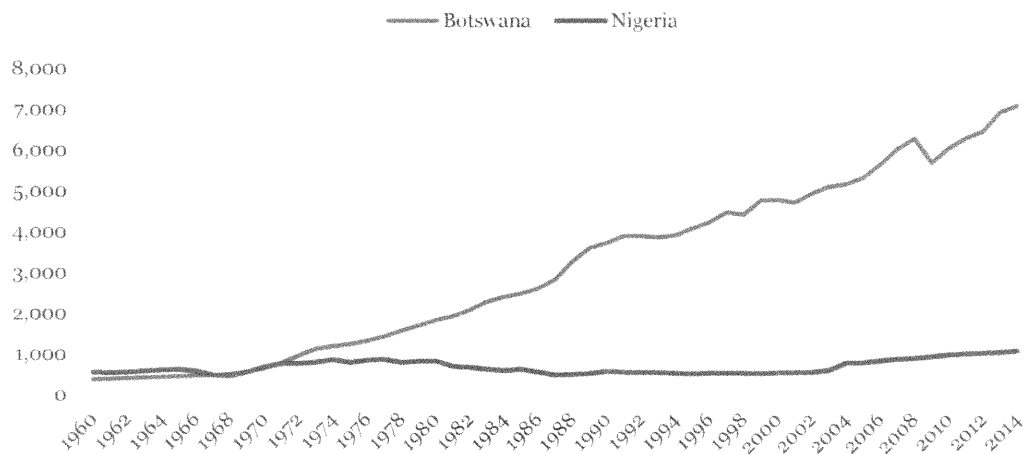


Figure 2 (Source data: World Bank)

24. The above graph (Figure 2) shows the economic performance (in terms of GDP per capita) of Botswana and Nigeria from 1960 to 2014. During that period, Botswana received significant revenues from diamond exports, while Nigeria received significant revenues from oil production. Botswana sensibly managed revenues from diamond production by establishing a clear fiscal rule and saving excess revenues in its SWF (the Pula Fund).¹⁰ This allowed it to delink public spending from volatile natural resource revenues, accumulate savings for future generations and maintain economic competitiveness.

25. In contrast, for much of this period, a lack of good governance led to Nigeria unwisely spending its oil revenues when, or shortly after, they were received. This enabled volatile oil prices and oil revenues to fuel volatile and ineffective public spending, causing economic instability. In addition, Nigeria did not save a substantial amount of oil revenues for future generations. Ineffective management of the petroleum sector also led to a loss of economic competitiveness.¹¹ Nigeria did eventually establish a SWF in 2011, and this may

¹⁰ Bond, J. & J. Fagjenbaum. (2014). *Harnessing Natural Resources for Diversification*. London: Global Journal for Emerging Market Economies.

¹¹ Ibid.

have contributed to improved management of oil revenues in the mid and late 2010s.

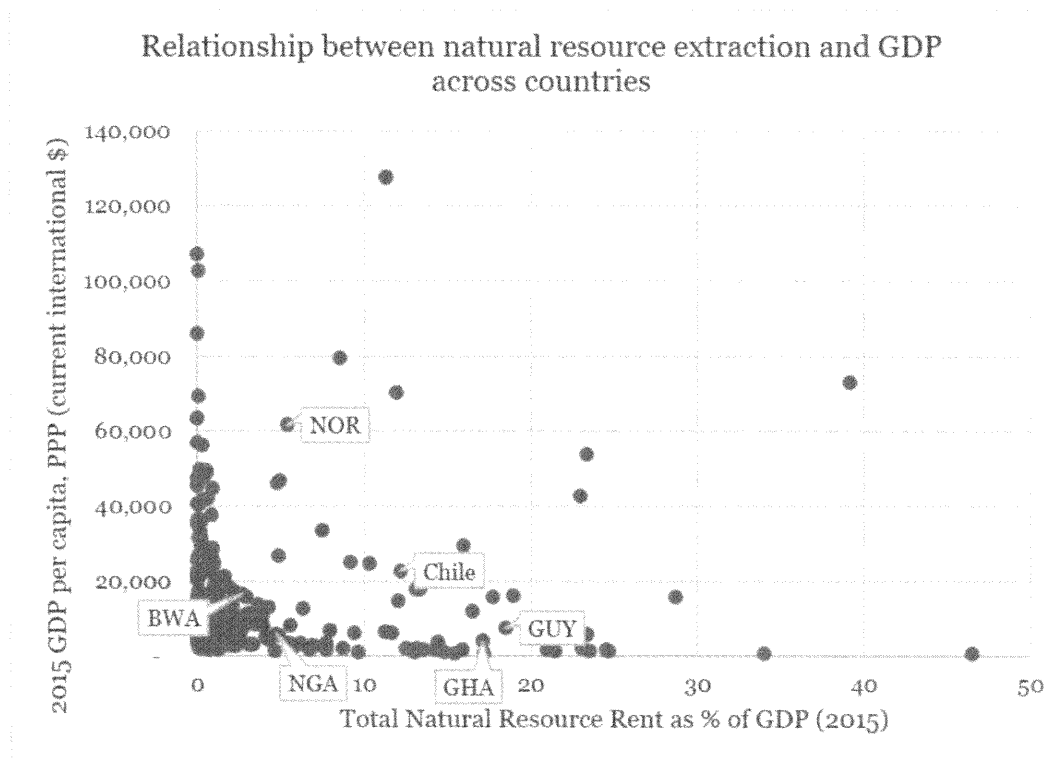


Figure 3 (Source data: World Bank) Key: BWA – Botswana; NGA – Nigeria; GHA – Ghana; NOR – Norway

26. The case studies of Nigeria and Botswana illustrate the importance of public policy choices. The public policies implemented by Botswana explain, to a significant extent, how it was able to avoid the resource curse and sharply increase the living standards of its people. In Nigeria, GDP per capita was at a similar level to that of Botswana, in the 1960s; however, due to the policies pursued by the Nigerian government, per capita GDP and living standards only moderately increased. The overarching message from these case studies is that public policies and discipline matter. Natural resource revenues, when effectively managed, can drive strong economic growth. However, when natural resource revenues are poorly managed, economic growth and living standards can stagnate as illustrated in Figure 3.

27. **The Government of the Co-operative Republic of Guyana (GCRG) is committed to effectively managing oil revenues through the establishment of a Natural Resource Fund with a clear fiscal rule. This policy will contribute to strong and sustainable long-term economic growth.**

Positioning Guyana as an Emerging Oil Producer within a Development Context

28. Over the last decade, Guyana has achieved an average growth rate of 4.1 percent, notwithstanding a relatively undiversified economic growth portfolio. In 2018, agriculture, fishing, forestry and mining are projected to account for 30.0 percent of GDP compared with their contribution of 30.6 percent, in 2011¹². According to the 2012 census, 89.1 percent of the 751,223 population resides on the coast, while unemployment stands at 12 percent (as at 2017). Significant human capital and physical infrastructure gaps exist across the country, largely as a result of the concentration of economic and other activities along the coast. This disparity stymies productivity and connectivity, resulting in relatively higher and varied cost of services and production among the ten administrative regions. The variations are wider in some instances and are usually due to factors including: (i) topography; (ii) culture; and (iii) resource availability.
29. Historically, the National Budget depends heavily on taxes and is financed from a combination of external loans and grants. Having suffered from a prolonged period of high debt (e.g. from 1985 to 2000, debt averaged more than 1000 percent of revenue), the country now faces only a low to moderate risk of debt distress, with debt accounting for 177 percent of revenue and 46 percent of GDP as at the end of 2017. From 1988 to 2006, Guyana was required to meet many IMF-imposed conditionalities, in order to access international concessional resources.

¹² Based on estimates from the Bureau of Statistics.

30. Guyana exited the IMF adjustment programme in 2005. Since then, successive governments have managed to keep the fiscal deficit below 5.5 percent of GDP. The IMF's annual Article IV assessments of Guyana continue to be generally favourable as a result of ongoing prudent fiscal and monetary management of the economy. Their positive assessment serves as a source of comfort to other development partners in their considerations for development financing to the GCRG. The Government is conscious of the gains made in debt management and is intent on containing the risk of debt distress within low to moderate levels, now and in the future.
31. To date, successive medium to long term development plans have served to stimulate various national initiatives, but have failed to comprehensively move the country forward on a sustainable development path that is sufficiently diversified to withstand external and domestic shocks, while delivering quality outcomes for the Guyanese people. In 2017, the Government, with support from the UN Country Team, led by UN Environment Programme (UNEP), began crafting the next long term national development strategy – the Green State Development Strategy (GSDS) –, with the aim of guiding the country's development trajectory along a green path that is environmentally responsible and socially and economically sustainable.
32. The proposed vision of the GSDS is:
- A Green, Inclusive and Prosperous Guyana that provides a good quality of life for all its citizens based on a sound education and social protection, low-carbon resilient development, green and decent jobs, economic opportunities, individual equality, justice, and political empowerment. Guyana serves as a model of sustainable development and environmental security worldwide, demonstrating the transition to a decarbonised and resource efficient economy that values and integrates the multi-ethnicity of our country and enhances the quality of life for all Guyanese.*
- To realise this, the GSDS will prioritise key strategic areas for investment within the following thematic areas:

- Green and Inclusive Structural Transformation: Diversifying the economic base, accessing new markets and creating decent jobs for all
 - Sustainable management of natural resources and expansion of environmental services: stewardship of natural patrimony;
 - Energy – transition to renewable energy and greater energy independence;
 - Resilient infrastructure and spatial development;
 - Human development and well-being;
 - Governance and institutional pillars; and
 - International cooperation, trade and investment.
33. The timing of the consultation process for the GSDS offers a unique opportunity to listen to and reflect the needs of people across the ten regions. It also provides a key forum for educating and managing the expectations of the citizens within the context of future revenue management. One of the key tenets of the GSDS is green and inclusive structural transformation. Inclusive growth, by definition, refers to the goal of fostering higher sustainable growth while also providing for equality of opportunity so that all segments of society can share in the growth and employment.
34. Improved labour productivity and innovation are key drivers of sustainable economic transformation and development. Guyana's current absorptive and productive capacity limitations mentioned earlier (paragraphs 22 and 23), highlight the need to prioritise investing in human capital. While resources, such as gold and oil, are finite in nature, human capital is hypothetically limitless. As such, targeted and quality investment in the peoples of Guyana is necessary to make them a key catalyst for transforming the non-oil sectors of the economy that will ensure sustainability post-oil. Strategic investments in science, technology, engineering and mathematics (STEM) training, among other key areas, will be made to ensure that Guyana's youth are poised to drive future development from a foundation that is based on creativity and technological and scientific innovations. Prioritising human capital as the driver of growth and

development has been tested and proven across the world and is expected to be a key feature in the GSDS.

35. It is important to note that the GSDS, as the next national development strategy, will be implemented via the National Budget, following good public financial management practice. The nexus between a national development strategy and allocating and managing revenues from any source, including oil, must be emphasised, so that the notion of parallel budgets is firmly dispelled, as mentioned earlier.
36. Countries rich in natural resources have the opportunity to achieve inclusive growth while ensuring that excessive debt is not incurred. The Government intends to grasp this opportunity and is cognisant that this requires both political courage and responsible citizenship, beginning with the decision to create a sovereign wealth fund that prioritises sustainability and recognises the unique developmental challenges that Guyana faces.
37. Today, one of the heralded examples of prudent natural resource management is Norway. In 1963, this country had a per capita GDP that was less than US\$2,000. This has now risen to over US\$70,000, thanks to strong institutions and a capable public service, prudent public policy decisions and collective political will to manage natural resources efficiently and effectively. Norway serves as an excellent example for GCRG to learn and adapt best practices that allow for the responsible accumulation and equitable distribution of wealth.
38. The opportunity of timing, given the available historical data and lessons learned from existing oil producing countries, places Guyana in a unique position to emerge as a model for the world. GCRG has researched the pitfalls, identified risks to avoid and lessons to embrace, in our efforts to avoid the *presource curse*, the resource curse and Dutch Disease.

39. The crafting of a national development strategy that is results-focused, with measureable targets and performance indicators, will allow development spending to take place in an environment of accountability and transparency where citizens can hold their Government accountable and the Government can take pride in its performance record. The process of creating the GSDS gives every policy maker and every citizen the chance to contribute to the national priority setting for spending. Collectively, the moment should not be missed to contribute to the design and execution of programmes that will ultimately lead to the realisation of the Good Life for this and future generations.

SECTION II: The Establishment and Management of Guyana's Natural Resource Fund

40. Recognising the need to both save and spend incoming oil revenues and, with the objective of ensuring future generations benefit, a sovereign wealth fund has historically been the solution. This section will deal with (i) the advantages and disadvantages of establishing a single fund to achieve multiple objectives (ii) the purpose of the Natural Resource Fund; (iii) integration with the National Budget; (iv) the fiscal rule (v) management of the Fund (vi) investments by the Fund; and (vii) reporting, auditing and transparency of the Fund.

The Rationale for Establishing a Single Fund to Achieve Multiple Objectives

41. The Government has carefully considered whether separate funds are required to meet the multiple objectives of intergenerational savings, stabilisation, and investing in development priorities. Overall, the view of the Government is that a single fund (the Natural Resource Fund) will be the most effective, efficient and transparent mechanism for achieving these multiple objectives. This conclusion was reached after carefully considering:
- the theory behind a single fund serving both stabilisation and savings objectives;
 - whether a single fund will achieve, with the proposed fiscal rule (the Economically and Fiscally Sustainable Amount) the fund's multiple objectives;
 - whether countries that have successfully managed their natural resource revenues have followed the single, or multiple, Sovereign Wealth Fund models (see Annex One);
 - examples of countries that that established multiple Sovereign Wealth Funds but have not managed their natural resource revenues effectively (see Annex One); and
 - the additional administrative costs of establishing two funds.

42. A single fund can achieve multiple objectives with a robust fiscal rule. This can be demonstrated through a simplified example. Suppose, for example, in any given year, government deposits all oil revenues into a single fund, which exceeds \$100 million annually. The Government then withdraws a portion of the balance of the fund, based on a fiscal rule, amounting to \$100 million annually, towards the domestic investment objective. Simultaneously, the remainder is invested in financial assets that generate returns. In the very long-term (once oil production had ceased) the long-term rate of return on the Fund's investments would exceed \$100 million per annum, as the saved and invested balance increases, thereby achieving the savings objective. The fund would be achieving a stabilisation objective as the withdrawal of \$100 million a year would be maintained in spite of short-term changes in oil revenues.

43. Establishing a SWF is relatively complex and there can be substantial administrative costs. If two completely separate funds are established then this implies that there are two governance structures, two investment policies/investment mandates, two sets of accounts and two external audits. There would also need to be detailed rules for transferring money between the two funds and the National Budget. In addition, it would be unwise to spread the limited expertise and experience in fund management in Guyana across two separate funds. The costs of managing two funds would be much higher than those of managing a single fund.

44. Overall, the Government considers that it is most efficient to have a single fund (the Natural Resource Fund). Both economic theory and case studies of Botswana, Norway and Timor-Leste (see Annex One) demonstrate that a single fund can effectively achieve multiple objectives. Economic modelling also demonstrates that with the proposed fiscal rule for Guyana – the Economically and Fiscally Sustainable Amount rule – a single fund will lead to economic stabilisation and substantial long-term savings (see below) while avoiding increased administrative costs that establishing multiple funds would entail – a feat that many countries

with multiple funds cannot boast. The case study of Nigeria (see Annex One), demonstrates that having multiple funds is no guarantee of achieving the savings and stabilisation objectives.

The Purpose of Guyana's Natural Resource Fund Act

45. It is an Act to establish the Natural Resource Fund to effectively, efficiently and wisely manage natural resource wealth for the benefit of current and future generations of Guyana by:
1. contributing to economic stabilisation, ensuring that volatility in natural resource revenues does not lead to volatile public spending and ensuring that natural resource revenues do not lead to a loss of economic competitiveness;
 2. fairly transferring natural resource wealth across generations to ensure that future generations benefit from these resources; and
 3. using natural resource wealth to finance development priorities, via the National Budget, as identified in the national development strategy, towards the creation of an inclusive green economy.¹³

Integration with the National Budget

46. Petroleum revenues as well as excess revenues from mining and forestry will be deposited into the NRF – a US dollar bank account held by the Bank of Guyana – from which withdrawals will be made, based on a fiscal rule. The withdrawals from the NRF will be deposited into the Consolidated Fund to form part of the financing streams for the annual budget, along with loans and tax and non-tax revenues. Government will then determine its development priorities, based on the costed GSDS, and the available income envelope which, from 2020, will consist of petroleum revenues, loans, grants, tax and non-tax revenues. Priority will be placed on catalytic investments to transform communities, regions and

¹³ An inclusive green economy is one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities.

the country as a whole, within the context of the measureable targets, identified within the GSDS.

47. Notwithstanding the aforementioned, withdrawals from the Natural Resource Fund cannot exceed the amount approved by Parliament. In addition to withdrawals from the NRF being deposited into the Consolidated Fund to finance development priorities, the only further drawdowns that can be made would be for Petroleum Tax Refunds, when necessary.

48. The production of oil, from 2020, and related revenue generation, will see the following categories of earnings being deposited into the NRF; that is, Petroleum Revenues shall include all revenue from:
 - royalties due and payable by the holder of a Petroleum Licence;
 - the Government's share of profit oil;
 - the Government's share of profit gas;
 - any petroleum income tax, additional profits tax or any other future tax levied on the profits of companies or individuals undertaking Petroleum Activities;
 - any signature bonus, discovery bonus, production bonus or other bonus related to Petroleum Activities or the award of a Petroleum License;
 - any other current or future fiscal instrument levied solely or mainly on companies or individuals involved in Petroleum Activities; and
 - any revenue or profits from a National Oil Company.

49. For the avoidance of doubt, Petroleum Revenues would exclude:
 - value added tax collected on inputs or outputs from Petroleum Activities;
 - customs duties collected on inputs into Petroleum Activities;
 - fees collected by the Petroleum Commission;
 - withholding tax on payments made to contractors by companies or individuals undertaking Petroleum Activities; and

- the Total Return from the investments of the NRF (this would be retained by the Fund).

The Fiscal Rule

50. The fiscal rules under consideration recognise the development gaps, both in terms of human capital and physical infrastructure, that exist and the need to accommodate development spending via the National Budget. Thus, it envisages an initial frontloading of spending to address critical development gaps, in the earlier years, and subsequent progression to higher savings ratios in later years. The proposed rule would acknowledge that, notwithstanding the above, Government is determined to avoid the pitfalls that other countries have encountered that led to paths of poor economic management.
51. Within the NRF legislation, *the fiscal rule*, would be entitled the **Economically and Fiscally Sustainable Amount (EFSA)** and, for a Fiscal Year, shall be the least of:
 - the Economically Sustainable Amount for that Fiscal Year;
 - the Fiscally Sustainable Amount for that Fiscal Year; and
 - the balance of the Natural Resource Fund.
52. The **Economically Sustainable Amount (ESA)** would be determined every year by the Macroeconomic Committee. In determining the Economically Sustainable Amount the Macroeconomic Committee would consider:
 - inflation;
 - the real effective exchange rate;
 - the balance of payments;
 - economic growth, particularly in the agriculture and manufacturing sectors;
 - the composition of public spending; and

- external debt.

53. The **Macroeconomic Committee** would determine the Economically Sustainable Amount and would consist of the following five members appointed by the Minister of Finance:
1. A representative of the Minister of Finance (who shall be the Chairperson);
 2. A member from academia or the private sector nominated by the Institute of Chartered Accountants of Guyana;
 3. A representative of the Bank of Guyana nominated by the Governor of the Bank of Guyana;
 4. A member from academia or the private sector nominated by the Leader of Opposition in Parliament; and
 5. A leading expert in macroeconomics appointed by the Minister with the approval of Cabinet.
54. The **Fiscally Sustainable Amount (FSA)** is the numeric rule for determining the maximum withdrawal from the NRF. The FSA would be the maximum that could be withdrawn from the NRF in a Fiscal Year while ensuring the long-term financial sustainability of the Fund, a fair inter-generational distribution of natural resource wealth, and maintaining stability in the annual withdrawals from the Fund. The FSA would be determined by the process outlined in Figure 4's decision box, guided by the benchmark petroleum revenue (BPR) and the daily rate of production (DROP).

55. The sustainability test for the options that would be considered for determining the FSA is captured in the decision box below using one of three potential options (see Annex Two for options to be considered):

Sustainability Test: Has 3% of the balance of the NRF exceeded BPR in the past?						
Yes		No				
Production Test: Is production low, moderate or high?						
Low =< 200,000 bpd		=< Moderate < 400,000 bpd		High => 400,000 bpd		
Ceiling Test: Is 2/3 of BPR > FSA Ceiling?		Ceiling Test: Is 1/2 of BPR > FSA Ceiling?		Ceiling Test: Is 1/3 of BPR > FSA Ceiling?		
Yes		No		Yes		No
FSA = 3% of the NRF	FSA = FSA Ceiling	FSA = 2/3 of BPR	FSA = FSA Ceiling	FSA = 1/2 of BPR	FSA = FSA Ceiling	FSA = 1/3 BPR

Figure 4 - Decision box for determining the FSA

Key

BPR: Benchmark Petroleum Revenues (that year’s petroleum revenues assuming a long-term oil price)
 FSA: Fiscally Sustainable Amount that can be withdrawn from NRF each year.
 FSA Ceiling: Fiscally Sustainable Amount Ceiling = the larger of 3% of the NRF’s balance and 25% of non-oil revenue.
 Bpd: barrels of petroleum per day
 NRF: Natural Resource Fund

56. The logic of the tests that underpin the determination of the FSA is outlined below:

Sustainability Test

- Ensures that in the long-term (when savings are high and petroleum production is declining or has ceased) the Government can continue spending 3 percent of the balance of the NRF. This is sustainable as in the long-term the real rate of return on the NRF’s investments should be equal to (or above) 3 percent.
- In addition, in the short-term when the balance of the NRF is low, this test allows the Government to spend more than 3 percent of the balance of the Fund.

Production Test

- Ensures that in the short-term when production is low the Government can spend a larger proportion of petroleum revenues. Thus, this test allows for frontloading of Government spending.

FSA Ceiling Test

- In the medium term, the FSA ceiling will likely be 25 percent of non-petroleum revenues. **Thus, the ceiling ensures that the FSA is not so large when compared to the non-oil economy which would result in a loss of economic competitiveness.**

57. The proposed fiscal rule has been modelled in detail under the assumption that there is a single fund (the Natural Resource Fund). This modelling demonstrates that:
- withdrawals from the Natural Resource Fund and Government spending are delinked from short-term changes in the oil price (thus achieving the stabilisation function); and
 - in the long-term substantial savings will likely accrue, with the balance of the Natural Resource Fund reaching in excess of US\$10 billion by 2032 (thus achieving the savings function).

Management of the Natural Resource Fund

58. The **Parliament** would be responsible for passing the Natural Resource Fund Act, approving the Annual Budget which would include the annual withdrawal from the Natural Resource Fund, and reviewing the Annual Report.
59. The **Ministry of Finance** would be responsible for overall management of the NRF, including requested withdrawal in the Annual Budget Proposal; calculating the Fiscally Sustainable Amount; drafting the Investment Mandate; entering into

the Operational Agreement with the Bank of Guyana and drafting the Annual Report and reporting on the NRF through the Annual Budget.

60. A **Sovereign Investment Committee** would be responsible for advising the Minister of Finance on the Investment Mandate and would consist of the following seven members appointed by the Minister:

- a. A representative of the Minister of Finance;
- b. an ex-officio representative nominated by the Minister of Natural Resources;
- c. an ex-officio representative nominated by the Governor of the Bank of Guyana;
- d. a representative nominated by the Institute of Chartered Accountants of Guyana;
- e. a representative nominated by the Guyana Association of Bankers;
- f. a representative nominated by the Leader of the Opposition; and
- g. the Senior Investment Adviser and Analyst.

Members of the Committee would be persons with substantial experience, training and expertise in financial investments and financial portfolio management; and a minimum of a postgraduate degree from a reputable university in the discipline of finance or economics, or an equivalent professional qualification.

61. The **Senior Investment Adviser and Analyst** would be recruited via international open tender and would be responsible for:

- assisting the Minister draft the Investment Mandate;
- assisting the Minister report and monitor the financial performance of the Natural Resource Fund;
- supporting the Sovereign Investment Committee undertake its functions;
- undertaking financial modelling showing the expected Total Return and risk of different allocations of the Natural Resource Fund across different Eligible

Asset Classes and presenting this modelling to the Minister and Sovereign Investment Committee; and

- performing other tasks related to the management of the Natural Resource Fund as determined by the Minister or Sovereign Investment Committee.

62. The **Bank of Guyana (BOG)** would be the Operational Manager of the Fund and manage it in accordance with the Operational Agreement and Investment Mandate. The BOG would draft quarterly reports and annual accounts, procure Private Managers and draft Management Agreements and Investment Instructions.¹⁴

63. **Private Managers** would manage the overall investment portfolio in accordance with Management Agreement and Investment Instructions and submit reports to Bank of Guyana.

Investments by the Fund

64. It is important to note that, notwithstanding the investments in Guyana, through the National Budget, as mentioned in paragraphs 46 and 47, the Fund, in order to become sustainable and achieve all of its objectives, must also invest in overseas financial instruments. The EFSA would determine how much is transferred to the National Budget. The balance would be invested in **overseas markets in order to minimise the risk of creating economic instability locally**. It is the investment in overseas assets that would serve to ensure that the country has a long-term stable source of income which would allow for the Fund to meet its stabilisation and intergenerational savings objectives.

65. The NRFA would define: (a) the Eligible Asset Classes and passive, index driven investment strategy and (b) broad ceilings and floors for investment in Eligible Asset Classes. The Investment Mandate would determine the exact allocation

¹⁴ The Government fully intends to supplement the capacity of the Bank of Guyana, in its role as operational manager, to support the effective management of the Fund, as needed.

across different Eligible Asset Classes while the Bank of Guyana would contract Private Managers to make individual investments that would track relevant indices within the confines of the Mandate.

66. **Eligible Asset Classes** in which the Fund may invest would include:

- Eligible Bank Deposits (USD) at a foreign bank with a long-term bank deposit rating of A (-) or above; (or GYD or USD at Bank of Guyana);
- Eligible Treasury Bills: SDR Currency/Country and A (-) long term domestic debt rating or higher;
- Eligible Equities are any equity included in the MSCI World Index;
- Eligible Sovereign Bonds are any sovereign bond included in the Barclays Global Treasury Index;
- Eligible Derivatives must be based on investments held by the Natural Resource Fund and reduce risk; and
- Eligible Commodities is limited to gold.

67. **Very Safe Investments** would be mandatory such that the first US\$500 million and at least three times the expected annual withdrawal would be invested in Very Safe Investments (Eligible Bank Deposits and Eligible Treasury Bills). This would ensure that the Fund meets short term stabilisation and cash management objectives.

68. Investments by the Fund would be made following a **Passive Investment Management** strategy to maximise returns over the long run. This would mean that:

- Investments in Eligible Equities shall be made to track the MSCI World Index, MSCI World ESG Leaders Index or the MSCI World Ex Fossil Fuels Index.
- Investments in Eligible Sovereign Bonds shall be made to track the Barclays Global Treasury Index.

- Investments in Eligible Treasury Bills and Eligible Commodities shall be made to track indices included in the Investment Mandate.

69. The **Ceilings and Floors** for the Eligible Asset Classes (see Table 1) would be designed to limit exposure of the entire balance of the Fund to riskier instruments while maintaining some flexibility to allow investment in the various instruments which may yield higher returns from time to time.

Table 1. Ceilings and Floors

	Floor	Ceiling
Eligible Treasury Bills	0%	45%
Eligible Sovereign Bonds	30%	60%
Eligible Equities	0%	70%
Eligible Derivatives	0%	10%
Eligible Commodities	0%	10%

Reporting and Auditing

70. The reporting and auditing requirements of the NRFA would be extensive. Ultimately, the Ministry of Finance would lay an Annual Report in the Parliament each fiscal year and provide further reporting through the annual budget process which will include additional documentation. Each instance would see comprehensive analyses being made public.
71. The reporting and audit requirements (see Table 2) would ensure that all petroleum revenues are accounted for.

Table 2. The Reporting and Audit Requirements of the NRFA

Report	Responsible	Content
Annual Budget	Ministry of Finance	<ul style="list-style-type: none"> • Explanation of Economically and Fiscally Sustainable Amount. • Explanation of governance of the Fund and summary of its financial performance.
Annual Report	Ministry of Finance	<p>Detailed report including:</p> <ul style="list-style-type: none"> • all deposits, withdrawals and investments; • analysis of performance of investments; and • audited financial statements and external auditor's report.
Quarterly Reports, Accounts and Internal Audit	Bank of Guyana	<ul style="list-style-type: none"> • Quarterly reports and financial statements. • Accounts. • Drafted in accordance with International Financial Reporting Standards. • Internal Audit at least annually.
External Audit	Auditor-General	<ul style="list-style-type: none"> • An external audit of the accounts, records and other documents relating to the Natural Resource Fund shall be undertaken annually by the Auditor General. • Auditor-General may engage an internationally recognised auditing firm.
Financial Reports	Private Managers	<ul style="list-style-type: none"> • Summary of investment performance. • Drafted when requested/as agreed with Bank of Guyana.

Good Governance and Transparency

72. **The Santiago Principles** consist of 24 generally accepted principles and practices voluntarily endorsed by the members of the International Forum of Sovereign Wealth Funds (IFSWF). The Principles promote transparency, good governance, accountability and prudent investment practices, whilst also encouraging a more open dialogue and deeper understanding of SWF activities. Drafted by the International Working Group of SWFs and welcomed by the IMF's International Monetary Financial Committee in 2008, the objectives of the Santiago Principles are to:
1. help maintain a stable global financial system and free flow of capital and investment;
 2. comply with all applicable regulatory and disclosure requirements in the countries in which SWFs invest;
 3. ensure that SWFs invest on the basis of economic and financial risk and return-related considerations; and
 4. ensure that SWFs have in place a transparent and sound governance structure that provides adequate operational controls, risk management, and accountability.
73. The Natural Resource Fund would operate in a transparent manner and fully conform to the Santiago Principles. The table in Annex Three lists each Santiago Principle and describes how the Natural Resource Fund would conform to each principle.

SECTION III: Concluding Statements

74. While the NRF represents a forward step along the continuum of legislative reforms that must be in place to support the petroleum sector, legislation alone will not enable good governance of revenues. The expenditure path of the associated resource revenues must relate to the strategic development plan, sectoral and regional plans that are framed to deliver services while achieving value for money. Rigorous project appraisal systems and prioritisation will be needed along with improved technical competencies across the sectors to ensure the required pace and quality of improvements and innovations necessary to achieve economic diversification within an inclusive green economy.

75. There is an urgent need for strengthened institutions and systems to support strong governance and oversight. Effective monitoring and evaluation are critical to ensuring transparency and accountability. This should be complemented by stronger enforcement of anti-corruption measures across all sectors. Investing in human capital (throughout the life cycle) and increasing our national capacity to effectively absorb resources must be paramount. As a nation, an historical opportunity is before its people. Maximising this to the benefit of every Guyanese woman, man and child is Government's responsibility, and doing so – while taking pre-emptive actions to avoid the *presource curse*, Dutch Disease and resource curse – is what will make Guyana stand out as a people and, to the world, as a model government and nation worthy of emulation.

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Annex One: Examples of countries that managed their natural resource revenues with single and multiple funds

Botswana, Norway and Timor-Leste are countries that have successfully managed natural resource revenues using a single Sovereign Wealth Fund to achieve both stabilisation and savings objectives.

The economy of Botswana is highly dependent on revenues from diamond mining. Botswana's government has long recognised that, if not properly managed, diamond revenues can lead to a loss of economic competitiveness, volatile public spending and an unequal inter-generational distribution of wealth. The Pula Fund (Botswana's Sovereign Wealth Fund) was established in 1994 to assist the Government to manage revenues from diamond mining.¹⁵ The Government transfers revenues from diamond mining above those needed for investment to the Pula Fund and also limits total public spending each year to 40% of Gross Domestic Product. The Pula Fund invests solely in foreign assets, principally sovereign bonds and equities from developed economies. The Pula Fund has assisted the Government to achieve both stabilisation and long-term savings objectives. The Pula Fund had a balance of approximately US\$6 billion at the end of 2017, equivalent to US\$2,479 per person, demonstrating reasonable long-term savings.¹⁶ Botswana's economy has also performed relatively well since the Pula Fund was established, with economic growth averaging over 4 percent per annum between 1994 and 2017.

Norway has received significant oil revenues since the 1970s. The Government established the Government Petroleum Fund in 1990.¹⁷ The Fund was explicitly established to serve both savings and stabilisation objectives. Specifically, the Fund's website states:¹⁸

¹⁵ <http://www.bankofbotswana.bw/content/2009103013033-pula-fund>

¹⁶ Taken from page 41 of the Bank of Botswana Report 2017. This Report is available at: <http://www.bankofbotswana.bw/assets/uploaded/annual-report.pdf>

¹⁷ The name of the Fund was changed to the Government Pension Fund Global in 2006

¹⁸ See: <https://www.nbim.no/en/the-fund/the-history/>

“The fund was set up to give the government room for manoeuvre in fiscal policy should oil prices drop or the mainland economy contract. It also served as a tool to manage the financial challenges of an ageing population and an expected drop in oil revenue. The fund was designed to be invested for the long term, but in a way that made it possible to draw on when required.”

The Government of Norway withdraws an amount equal to the long-term rate of return from the Fund each year (currently estimated at 3 percent of the Fund’s balance). This means that the Fund performs a stabilisation function as withdrawals (and Government spending financed by these withdrawals) are not affected by short-term changes in oil revenues. In addition, the withdrawal rule ensures that the Fund accumulates savings in the long-term as deposits (oil revenues plus the rate of return from investments) are likely to exceed withdrawals from the Fund.

Norway is an often cited and well-known example of a Sovereign Wealth Fund that has successfully achieved both long-term savings and stabilisation objectives. More specifically, as of the end of 2017, the Government Petroleum Fund had accumulated a balance of approximately US\$1 trillion, equivalent to US\$196,371 per person. The Fund also contributed to economic stabilisation with government spending being maintained after oil prices crashed in 2008 and 2014.

Timor-Leste is, by some measures, the most oil dependent country in the world. The Petroleum Fund was established in 2005 to serve both stabilisation and long-term savings objectives. All oil revenues are paid into the Fund and the amount withdrawn from the Fund is guided by the Estimated Sustainable Income. The Estimated Sustainable Income is calculated as being equal to 3 percent of total oil wealth (the balance of the Petroleum Fund plus a discounted forecast of future oil revenues). The Estimated Sustainable Income can be thought of as the amount the Government can withdraw from the Petroleum Fund each year, forever without the Fund ever running out of money. The Estimated Sustainable Income, and thus Government spending, should not vary with short-term changes in oil prices, meaning the Fund achieves the

stabilisation objective. In addition, over time, as oil production occurs the balance of the Petroleum Fund should increase (achieving the long-term savings objective).

The Petroleum Fund has assisted the Government to achieve the stabilisation objective. In 2009, after oil prices crashed in 2008, the Government was able to increase spending. Similarly, the Government was able to maintain spending in 2015 after oil prices fell in 2014.

The Government has also used the Petroleum Fund to accumulate long-term savings. Specifically, at the end of 2016 the Petroleum Fund had accumulated a balance of approximately US\$16 billion, equivalent to US\$12,485 per person and representing a substantial inter-generational transfer of petroleum wealth in a relatively poor country.

Overall, the examples of Botswana, Norway and Timor-Leste demonstrate that a single Sovereign Wealth Fund can be used to achieve both stabilisation and savings objectives.

Nigeria is an example of a country that has three separate Sovereign Wealth Funds. These funds are:

- **The Stabilisation Fund.** This Fund aims to provide stabilisation support to the federation revenue in times of economic stress;
- **The Futures Generation Fund.** This Fund aims to Invest in a diversified portfolio of growth investments to provide future generations of Nigerians a savings base for such time as the hydrocarbon reserves are exhausted; and
- **The Infrastructure Fund.** This Fund aims to enhance the development of infrastructure, primarily through investment in domestic infrastructure projects that meet targeted financial returns.

All three funds were established in 2011 and the Nigerian Sovereign Investment Authority is responsible for their management. However, despite having three funds each aiming to fulfil a distinct objective, it is debatable whether any of these objectives have been achieved in Nigeria. With regards to long-term savings, the balance of the

Fund was approximately US\$1.5 billion in 2017.¹⁹ This may appear to demonstrate substantial long-term savings, but due to Nigeria's large population it equates to less than US\$8 per person. The stabilisation fund has also, arguably, failed to stabilise the economy. Specifically, Government spending fell and the economy entered recession in 2016 due partly to lower oil revenues and prices.²⁰

¹⁹ For the Fund Balance see http://nsia.com.ng/~nsia/sites/default/files/annualreports/2017%20Audited%20Financial%20Statement_o.pdf

Exchange rate used of 362 Naira to the USD. See: <https://www.cbn.gov.ng/rates/exrate.asp?year=2017&month=3>

²⁰ See data in IMF article IV reports for 2017 and 2018. Available at: <http://www.imf.org/en/Countries/NGA>

Annex Two: Fiscal Rule Options

Fiscal Rule 1:

If 3 percent of the balance of the SWF **is less than X of** benchmark petroleum revenue (BPR), then the maximum withdrawal is limited to the larger of:

- 25 percent of non-oil Revenue in the previous year, and
- 3 percent of the Balance of the SWF.

If 3 percent of the balance of the SWF **is greater than X** percent of BPR, then the maximum withdrawal is 3 percent of the balance of the SWF.

Where:

- X is determined as follows:
 - a. $X = 2/3$ if the expected daily rate of production (DROP) during the fiscal year as reported by all contractors is less than 200,000 Bbl
 - b. $X = 1/2$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 200,000 Bbl and less than 400,000 Bbl
 - c. $X = 1/3$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 400,000 Bbl
- Benchmark Petroleum Revenue is calculated using the total expected oil production in the fiscal year, as reported by all contractors, and the 7-year average price of oil including any discounts for quality. The 7-year average price of oil shall include:
 - a. The average price for each of the 3 immediate prior years,
 - b. The average price for the current year, and
 - c. the price for each of the 3 immediate future years where the price is estimated as the average of the low price and reference price for that year as reported by the U.S. Energy Information Administration.

All prices shall be discounted to reflect the quality of oil produced or expected to be produced.

Fiscal Rule 2:

This rule is identical to Fiscal Rule 1 with the exception of the value of X. In this rule X is as follows:

- a. $X = 4/5$ if the expected DROP during the fiscal year as reported by all contractors is less than 200,000 Bbl
- b. $X = 3/5$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 200,000 Bbl and less than 400,000 Bbl
- c. $X = 2/5$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 400,000 Bbl

Fiscal Rule 3:

This rule is identical to Fiscal Rule 1 with the exception of the value of X. In this rule X is as follows:

- a. $X = 1/2$ if the expected DROP during the fiscal year as reported by all contractors is less than 200,000 Bbl
- b. $X = 1/3$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 200,000 Bbl and less than 400,000 Bbl
- c. $X = 1/5$ if the expected DROP during the fiscal year as reported by all contractors is greater than or equal to 400,000 Bbl

Annex Three: Santiago Principles and the Natural Resource Fund

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 1. Principle: The legal framework for the SWF should be sound and support its effective operation and the achievement of its stated objective(s).</p> <p>GAPP 1.1. Subprinciple. The legal framework for the SWF should ensure legal soundness of the SWF and its transactions.</p> <p>GAPP 1.2. Subprinciple. The key features of the SWF's legal basis and structure, as well as the legal relationship between the SWF and other state bodies, should be publicly disclosed.</p> <p>GAPP 2. Principle: The policy purpose of the SWF should be clearly defined and publicly disclosed.</p>	<p>The Natural Resource Fund Act (NRFA) would provide a detailed and sound legal framework for the operation of the Natural Resource Fund (NRF). The NRFA would make clear that the NRF would have no legal personality and would effectively be a pool of investments held by the Bank of Guyana. The NRFA would also clearly outline the relationship between the NRF, annual budget and Consolidated Fund. The responsibilities of Parliament, the Ministry of Finance, the Bank of Guyana, the Macroeconomic Committee and the Sovereign Investment Committee would also be clearly outlined in the NRFA.</p> <p>The NRF would fully comply with GAPP 1.</p> <p>The NRFA would clearly outline the policy purposes of the NRF. Specifically, it would state:</p> <p>'AN ACT to establish the NRF to effectively, efficiently and wisely manage natural resource wealth for the benefit of current and future generations of the people of Guyana by:</p> <ol style="list-style-type: none"> 1.) contributing to economic stabilization by ensuring that volatility in natural resource revenues do not lead to volatile public spending; 2.) ensuring that natural resource revenues do not lead to a loss of economic competitiveness; 3.) fairly transferring natural resource wealth across generations to ensure that future generations benefit from natural resource wealth; and 4.) using natural resource wealth to finance development priorities as identified in the National Development Strategy, including inclusive green economic and social growth.' <p>The NRF would fully comply with GAPP 2.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 3. Principle: Where the SWF's activities have significant direct domestic macroeconomic implications, those activities should be closely coordinated with the domestic fiscal and monetary authorities, so as to ensure consistency with the overall macroeconomic policies.</p>	<p>The NRF would not directly invest domestically and, therefore, would not have direct domestic macroeconomic implications. Withdrawals from the NRF would be made through the annual budget and would be used to finance appropriated on-budget expenditures. The macroeconomic impact of withdrawals from the NRF and overall public spending would thus be evaluated and considered through the annual budget process. In addition, a Macroeconomic Committee would be responsible for considering the impact of withdrawals from the NRF on economic competitiveness and could limit withdrawals from the NRF in order to maintain economic competitiveness.</p> <p>The NRF would fully conform to GAPP 3.</p>
<p>GAPP 4. Principle: There should be clear and publicly disclosed policies, rules, procedures, or arrangements in relation to the SWF's general approach to funding, withdrawal, and spending operations.</p> <p>GAPP 4.1. Subprinciple. The source of SWF funding should be publicly disclosed.</p> <p>GAPP 4.2. Subprinciple. The general approach to withdrawals from the SWF and spending on behalf of the government should be publicly disclosed.</p>	<p>The NRFA would clearly outline that:</p> <ul style="list-style-type: none"> a.) petroleum revenues would be directly paid into the NRF. b.) withdrawals from the NRF would only be made to the Consolidated Fund to finance appropriated on-budget expenditures; and c.) that the NRF would only invest in eligible asset classes. <p>There would be full public disclosure in this regard as:</p> <ul style="list-style-type: none"> a.) the NRFA would be publically available in due course; b.) the accounts of the NRF, quarterly financial reports and the annual report would show all receipts, withdrawals and investments of the NRF. <p>The NRF would fully conform to GAPP 4.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 5. Principle: The relevant statistical data pertaining to the SWF should be reported on a timely basis to the owner, or as otherwise required, for inclusion where appropriate in macroeconomic data sets.</p>	<p>The NRFA would outline that the Bank of Guyana has to submit quarterly financial reports on the NRF to the Ministry of Finance, while the Ministry of Finance has to submit an annual report on the NRF to Parliament. In addition, the annual budget would contain a summary of the fiscal rule governing withdrawals from the NRF and a description of the financial performance of the Fund. The Macroeconomic Committee would also have to analyse and report on the likely impact of withdrawals from the NRF on economic competitiveness.</p>
<p>GAPP 6. Principle: The governance framework for the SWF should be sound and establish a clear and effective division of roles and responsibilities in order to facilitate accountability and operational independence in the management of the SWF to pursue its objectives.</p>	<p>The NRF would fully conform to GAPP 5.</p> <p>The NRFA would clearly outline the roles and responsibilities of Parliament, the Ministry of Finance, the Bank of Guyana, the Sovereign Investment Committee, Macroeconomic Committee and Private Managers in managing the fund.</p>
<p>GAPP 7. Principle: The owner should set the objectives of the SWF, appoint the members of its governing body(ies) in accordance with clearly defined procedures, and exercise oversight over the SWF's operations.</p>	<p>The NRF would fully conform to GAPP 6.</p> <p>The main objectives of the NRF would be outlined in the NRFA. Investment objectives would be outlined in law and in the investment mandate drafted by the Ministry of Finance. The Ministry of Finance would appoint the members of the Sovereign Investment Committee and Macroeconomic Committee. The Governor of the Bank of Guyana is appointed by the President under the Bank of Guyana Act.</p>
	<p>The NRF would fully conform to GAPP 7.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 8. Principle: The governing body(ies) should act in the best interests of the SWF, and have a clear mandate and adequate authority and competency to carry out its functions.</p>	<p>The mandates and authority of the Ministry of Finance, Bank of Guyana, Sovereign Investment Committee and Macroeconomic Committee would be clearly outlined in the NRFA. The Bank of Guyana has the competency and expertise to act as the operational manager. The Ministry of Finance has the appropriate competency and expertise to manage the Fund.</p> <p>The NRF would fully conform to GAPP 8.</p>
<p>GAPP 9. Principle: The operational management of the SWF should implement the SWF's strategies in an independent manner and in accordance with clearly defined responsibilities.</p>	<p>The NRFA would mandate that the Bank of Guyana be the operational manager of the Fund and be responsible for managing the Fund in accordance with its responsibilities as would be outlined in law. The Bank of Guyana would also have to follow the Investment Mandate and abide by the terms of the Operational Agreement when managing the Fund.</p> <p>The NRF would fully conform to GAPP 9.</p>
<p>GAPP 10. Principle: The accountability framework for the SWF's operations should be clearly defined in the relevant legislation, charter, other constitutive documents, or management agreement.</p>	<p>The accountability framework for the NRF would be clearly outlined in the NRFA.</p> <p>The NRF would fully conform to GAPP 10</p>
<p>GAPP 11. Principle: An annual report and accompanying financial statements on the SWF's operations and performance should be prepared in a timely fashion and in accordance with recognised international or national accounting standards in a consistent manner.</p>	<p>The NRFA would mandate that the financial statements conform to International Financial Reporting Standards and that an annual report be prepared, submitted to parliament and published. The NRFA would also include deadlines for the drafting of the annual report and quarterly financial statements.</p> <p>The NRF would fully conform to GAPP 11.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 12. Principle: The SWF's operations and financial statements should be audited annually in accordance with recognised international or national auditing standards in a consistent manner.</p>	<p>The NRFA would mandate that the NRF be audited annually by the Auditor-General.</p>
<p>GAPP 13. Principle: Professional and ethical standards should be clearly defined and made known to the members of the SWF's governing body(ies), management, and staff.</p>	<p>The NRF would fully comply with GAPP 12.</p> <p>Employees of the Bank of Guyana and Ministry of Finance would be responsible for abiding by existing professional and ethical standards. The Ministry of Finance would ensure appropriate ethical and professional standards are drafted for, and made known to, members of the Sovereign Investment Committee and Macroeconomic Committee.</p> <p>The Ministry of Finance and Bank of Guyana would review existing professional and ethical standards to ensure conformity to GAP 13 and the Ministry of Finance would include appropriate ethical and professional standards in the terms and conditions for members of the Sovereign Investment Committee and Macroeconomic Committee.</p>
<p>GAPP 14. Principle Dealing with third parties for the purpose of the SWF's operational management should be based on economic and financial grounds, and follow clear rules and procedures.</p>	<p>The NRFA and reforms described above would ensure compliance with GAPP 13.</p> <p>The NRFA would outline that the Bank of Guyana could employ private managers to manage part of the NRF through a competitive procurement process. Going forward, to ensure full compliance with GAP 14, the Bank of Guyana would develop clear rules, guidelines and procedures for selecting private managers.</p> <p>The NRFA and reforms described above would ensure compliance with GAPP 14.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 15. Principle: SWF operations and activities in host countries should be conducted in compliance with all applicable regulatory and disclosure requirements of the countries in which they operate.</p>	<p>The NRF would be invested through experienced private managers who would be responsible for and experienced in complying with all applicable regulatory and disclosure requirements of the countries in which they invest. The Bank of Guyana would ensure that it conforms to all applicable regulatory and disclosure requirements for any investments that it directly manages.</p> <p>The NRF would fully comply with GAPP 15.</p>
<p>GAPP 16. Principle: The governance framework and objectives, as well as the manner in which the SWF's management is operationally independent from the owner, should be publicly disclosed.</p>	<p>The NRFA would outline the governance framework and would be publically available. The NRF annual report would also describe the objectives and management framework of the Fund.</p> <p>The NRF would comply with GAPP 16.</p>
<p>GAPP 17. Principle: Relevant financial information regarding the SWF should be publicly disclosed to demonstrate its economic and financial orientation, so as to contribute to stability in international financial markets and enhance trust in recipient countries.</p>	<p>The NRFA would mandate that quarterly financial reports, the annual report and the audited accounts be published.</p> <p>The NRF would comply with GAPP 17.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 18. Principle: The SWF's investment policy should be clear and consistent with its defined objectives, risk tolerance, and investment strategy, as set by the owner or the governing body(ies), and be based on sound portfolio management principles.</p> <p>GAPP 18.1. Subprinciple. The investment policy should guide the SWF's financial risk exposures and the possible use of leverage.</p> <p>GAPP 18.2. Subprinciple. The investment policy should address the extent to which internal and/or external investment managers are used, the range of their activities and authority, and the process by which they are selected and their performance monitored.</p> <p>GAPP 18.3. Subprinciple. A description of the investment policy of the SWF should be publicly disclosed.</p>	<p>The NRF's investment policy would be partly determined by law and partly through the investment mandate drafted by the Ministry of Finance.</p> <p>The NRFA would outline eligible assets classes and contain broad ceilings and floors for the allocation of the balance of the Fund across those asset classes. The investment mandate would specify the exact percentage distribution of the Fund between different eligible asset classes and other details of the investment policy. The Bank of Guyana would also be responsible for drafting detailed investment instructions for each private manager employed by the NRF. The investment mandate would be publically disclosed.</p> <p>Assuming that the Investment Mandate is well-drafted and covers the required areas, the NRF would fully comply with GAPP 18.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 19. Principle: The SWF's investment decisions should aim to maximise risk-adjusted financial returns in a manner consistent with its investment policy, and based on economic and financial grounds.</p> <p>GAPP 19.1. Subprinciple. If investment decisions are subject to other than economic and financial considerations, these should be clearly set out in the investment policy and be publicly disclosed.</p> <p>GAPP 19.2. Subprinciple. The management of an SWF's assets should be consistent with what is generally accepted as sound asset management principles.</p>	<p>The NRFA would explicitly state that the NRF should be invested across different asset classes to achieve a target real long-term Total Return while minimising risk.</p>
<p>GAPP 20. Principle: The SWF should not seek or take advantage of privileged information or inappropriate influence by the broader government in competing with private entities.</p>	<p>The NRF would fully comply with GAPP 19.</p> <p>The NRFA would mandate that the NRF be invested passively to track relevant indexes, as such the NRF would not be taking advantage of privileged information and/or inappropriate influence by Government when making investment decisions.</p>
<p>GAPP 21. Principle: SWFs view shareholder ownership rights as a fundamental element of their equity investments' value. If a SWF chooses to exercise its ownership rights, it should do so in a manner that is consistent with its investment policy and protects the financial value of its investments. The SWF should publicly disclose its general approach to voting securities of listed entities, including the key factors guiding its exercise of ownership rights.</p>	<p>The NRF would fully comply with GAPP 20.</p> <p>The Bank of Guyana would develop a policy for exercising its ownership rights through private managers (by proxy) that is consistent with the NRF's investment policy.</p> <p>When the aforementioned policy is developed, the NRF would fully conform with GAP 21.</p>

Santiago Principle	How the Natural Resource Fund Conforms to this Principle?
<p>GAPP 22. Principle: The SWF should have a framework that identifies, assesses, and manages the risks of its operations.</p> <p>GAPP 22.1. Subprinciple. The risk management framework should include reliable information and timely reporting systems, which should enable the adequate monitoring and management of relevant risks within acceptable parameters and levels, control and incentive mechanisms, codes of conduct, business continuity planning, and an independent audit function.</p> <p>GAPP 22.2. Subprinciple. The general approach to the SWF's risk management framework should be publicly disclosed.</p>	<p>The NRFA would mandate that the Governor of the Bank of Guyana establish risk management arrangements for the operational management of the NRF. The NRFA would be published in due course. Assuming that the Governor of the Bank of Guyana develops a comprehensive and effective risk management framework, there would therefore be compliance with GAP 22.</p>
<p>GAPP 23. Principle: The assets and investment performance (absolute and relative to benchmarks, if any) of the SWF should be measured and reported to the owner according to clearly defined principles or standards.</p>	<p>When the aforementioned policy is developed, the NRF would fully conform with GAP 22.</p> <p>The NRFA would mandate that investments in eligible asset classes have to track, and their performance be evaluated against, indexes. The indexes for sovereign bonds and equities would be mandated in the NRFA; while for the other eligible asset classes the NRFA would mandate that the index be included in the investment mandate. The NRFA would also mandate that the annual report conforms to International Financial Reporting Standards.</p>
<p>GAPP 24. A process of regular review of the implementation of the GAPP should be engaged in by or on behalf of the SWF.</p>	<p>The NRF would comply with GAP 23.</p> <p>The Government would undertake such a review once the NRF is established and this would lead to compliance with GAP 24.</p>

Annex Four: Comparison of Sovereign Wealth Fundsⁱ

Country	Management	Separate Stabilisation and Long-Term Savings Funds	How are Natural Resource Revenues Paid into the Fund?	Fiscal Rule	Directly Invests Domestically	Current Investments and/or Eligible Investments	Annual Report	External Auditing Requirements
Botswana (Pula Fund)	Central Bank Model ⁱⁱⁱ	No.	Indirectly	Expenditure Rule ⁱⁱⁱ	No	SB and EQ	Reported through financial statements of Central Bank	Central Bank financial statements are externally audited
Chile (Pension Reserve Fund and Economic and Social Stabilisation Fund)	Manager Model ^{iv}	Yes	Indirectly ^v	Structural Balance Rule ^{vi}	No	ESSF: BD, EQ, SB and TB PRF: CB, SB and EQ	Annual report prepared by MoF	Private Sector Auditor appointed by Office of the Treasury of Chile
Ghana (Petroleum Funds)	Manager Model	Yes	Deposit Account	Difficult to classify.	No	TB, SB and DE	Annual report drafted by MoF	Auditor-General
Guyana (Natural Resource Fund)	Manager Model	Noⁱⁱ	Directly	Economically and Fiscally Sustainable Amount (Estimated Benchmark Revenue)	No	Initially: TB & BD and then BD, TB, SB, EQ, DE and CO	Annual report drafted by MoF	Auditor-General, but he/she may engage an internationally recognised auditing firm
Kazakhstan (National Fund of Kazakhstan)	Management Council Model ^{viii}	No ^{ix}	By presidential decree ^x	Subject to change ^{xi}	No ^{xii}	TB, SB, BD, CB and EQ ^{xiii} .	None.	TBC.

Country	Management	Separate Stabilisation and Long-Term Savings Funds	How are Natural Resource Revenues Paid into the Fund?	Fiscal Rule	Directly Invests Domestically	Current Investments and/or Eligible Investments	Annual Report	External Auditing Requirements
Nigeria (Nigeria Sovereign Investment Authority)	Legal Entity	Yes	Deposit Account	Benchmark Pricing	Yes	BD, CB, CO, IN, DE, EQ, SB, TB, PE	Nigerian Sovereign Investment Authority drafts the annual report	Private sector auditor appointed by Nigerian Sovereign Investment Authority
Norway (Government Pension Fund Global)	Manager Model	No	TBC	Bird In Hand	No	CB, SB, EQ and RE	Central Bank drafts annual report.	Private Sector auditor appointed by Central Bank.
Timor-Leste (Petroleum Fund)	Manager Model	No	Directly	Estimated Sustainable Income/PIH ^{xiv}	No	TB, SB and EQ	MoF responsible for annual report.	Private sector auditor appointed by Ministry of Finance.
Trinidad (Heritage and Stabilisation Fund)	Manager Model	No	Consolidated Fund	Benchmark Pricing	No	TB, SB, CB and EQ	MoF responsible for annual report.	Auditor-General.
Uganda (Petroleum Investment Fund)	Manager Model	No	Deposit Account	Not dictated by law /None.	Unclear	Any instrument determined by the Minister of Finance.	Bank of Uganda responsible for annual report.	Auditor-General

Acronyms BD = Bank Deposits, CB= Corporate Bonds, CO = Commodities, DE = Derivatives EQ = Equities, IN = Infrastructure, MoF = Ministry of Finance, OT = Other, PE = Private Equity, RE= Real Estate, SB = Sovereign Bonds and TB = Treasury Bills,

ⁱ Please note that in any analytical exercise such as this a degree of simplification is required to compare numerous funds across different categories.

^{iv} The Central Bank (Bank of Botswana) determines both the investment strategy and the more detailed investment guidelines. The Pula Fund includes monies from both fiscal revenues (owned by the Government) and foreign exchange reserves (owned by the Bank of Botswana), both of these sources of funds derive from diamond production.

ⁱⁱⁱ The government uses the Sustainable Budget Index which states that recurrent non-health and non-education spending must be equal to or less than non-mineral revenue. So mineral revenues are only used to finance investment spending and any revenues that are not spent are transferred to the Pula Fund. Public investment spending is included in parliament approved rolling five year plans. In addition, there is an absolute cap on public spending at 40% of GDP per year. Dividends from the Fund equal to the expected long-term return on the Government owned portion of the Fund is paid to the Government every quarter as a financing item.

^{iv} The Manager Model refers to a system whereby the Ministry of Finance is responsible for overall management, and the Central Bank is responsible for the operational management, of the sovereign wealth fund. Sometimes private managers are also employed by the operational manager. Please note that in Chile's case, the Ministry of Finance is empowered to directly employ private managers. The legal entity model refers to a Fund whereby a separate legal entity with its own board is established to manage the Fund.

^v Chile's sovereign wealth fund law (or at least the English version of it) is not 100% clear on this point. However, as the disbursement to the Fund is based on the structural balance, it would seem likely that copper revenues are not explicitly ring-fenced and directly paid into the Pension Reserve Fund or Economic and Social Stabilisation Fund.

^{vi} Fiscal policy is formulated based on copper revenues and GDP growth at their long term structural level. There is a structural deficit when actual revenues are below their long-term structural level. There is a structural surplus when actual revenues are above their long term level. A minimum of 0.2% of previous year's GDP (and up to 0.5% if there is an effective surplus) are disbursed to Pension Reserve Fund. Withdrawals are made to finance pensions and social welfare liabilities. The Economic and Social Stabilisation Fund receives all remaining fiscal surpluses, after deposits to the Pension Reserve Fund. Net withdrawals depend on the effective structural balance. Effectively there are net withdrawals from the Economic and Social Stabilisation Fund when copper revenues are below trend. Net disbursements are made to the Economic and Social Stabilisation Fund when copper revenues are above their long term trend. The estimation of structural GDP and expected copper revenues are made by an independent committee.

^{vii} Although the current draft of the Natural Resource Fund Act does not mandate separate Funds its does mandate that very safe investments are initially made for the purpose of stabilisation and that further investments are then made for the purpose of long-term savings.

^{viii} The National Bank of Kazakhstan serves as operational manager of the Fund. However, strategic and policy decisions concerning investments are made by the Management Council, which includes the President, Ministers and some parliamentarians and government officials.

^{ix} There are, however, separate stabilisation and long-term savings portfolios.

^x Deposits and withdrawals are made from the Fund according to Presidential decree. Although one recent decree outlines that such withdrawals are subject to parliamentary approval.

^{xi} The Fund has a detailed fiscal rule; however, this rule is regularly changed (for example three times in a seven-year period).

^{xii} From inception until at least 2015 no domestic investments were made, there has since been discussion of the Fund making domestic investments but we have struggled to confirm whether any such investments have in fact been made.

^{xiii} Details of the investments of the Fund are not publicly disclosed and the information contained in the above table is based on secondary sources.

^{xiv} The Estimated Sustainable Income (a version of the permanent income hypothesis) is equal to 3% of petroleum wealth, when petroleum wealth is equal to savings in the Fund and a forecast of discounted future petroleum revenues. The Estimated Sustainable Income can be thought of as the constant amount (in real terms) that can be withdrawn from the Fund each year, forever without the Fund ever running out of money.