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May 28, 2025

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Asia and Pacific Department

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CONTENTS

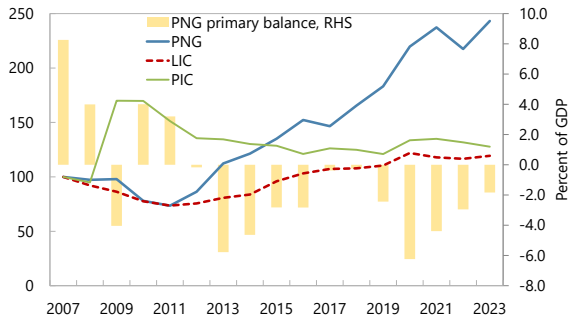
STRENGTHENING THE RULES-BASED FISCAL FRAMEWORK IN PAPUA NEW GUINEA

Papua New Guinea's (PNG) public debt has increased significantly in recent years, leading to a high risk of debt distress and exposing significant gaps in the existing fiscal setting. This paper proposes to strengthen the authorities' fiscal framework by introducing a clear public debt anchor and a primary balance rule. Specifically, we consider setting the medium-term debt anchor at between 30 and 40 percent of GDP to be appropriate to ensure that the debt limit of 60 percent is not breached under most scenarios. In addition, we propose to use the primary balance as an operational policy instrument to facilitate the convergence of public debt to its anchor and keep it at that level over the longer term. Advancing Public Financial Management (PFM) reforms along with mobilizing revenue in accordance with the Medium-Term Revenue Strategy (MTRS) and enhancing expenditure and commitment controls are also critical to enhance the credibility of the fiscal framework.

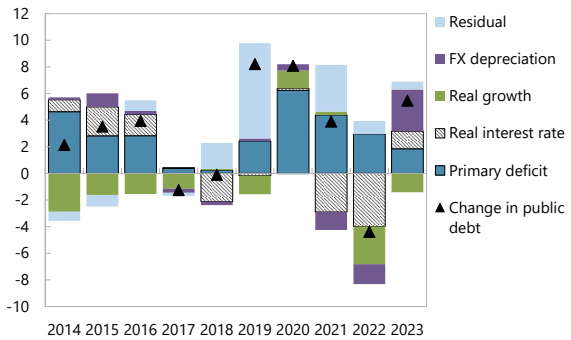
A. Introduction

1. PNG' public debt has been on the rise since the Global Financial Crisis (GFC), mainly driven by large fiscal deficits. Owing to a sustained drop in revenue in 2012-2019, reflecting in part lower commodity prices, fiscal deficits in PNG widened and stood at an average of 4.2 percent of GDP —placing it in the top quantile of all countries. Consequently, public debt more than doubled in this period and reached 40.6 percent in 2019, despite positive real growth. A combination of weak growth, significant fiscal relaxation during Covid-19 and, more recently, Kina depreciation further raised public debt to nearly 55 percent of GDP (Figure 1).

Figure 1. Public Debt and Its Drivers



Sources: PNG authorities; WEO; and IMF staff calculations.
Note: Public debt index is normalized to 100 in 2007.

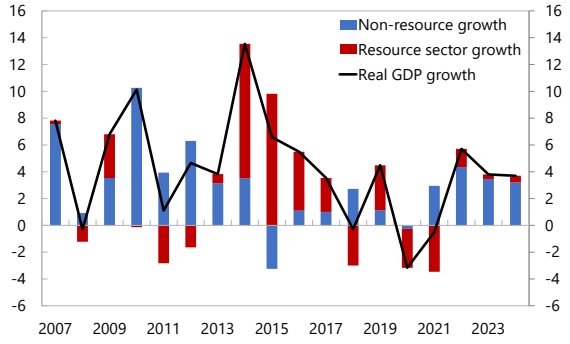


Sources: PNG authorities and IMF staff calculations.

2. PNG has become a resource-rich country in the past two decades and is now more susceptible to resource sector shocks. The PNG economy went through structural change during the last two decades when major resource projects started to bear fruit, making the resource sector a key economic driver. As of 2023, this sector accounts for 25 percent of output, 24 percent of fiscal revenues, and 87 percent of total exports. This has created new challenges for fiscal policy. First, fiscal policy has become pro-cyclical, given the positive correlations of growth and the fiscal position with resource sector shocks and commodity prices. For example, the completion of the PNG LNG project pushed up growth to double digits in 2014 while the commodity price bust after 2014 undermined the fiscal position. This was particularly evident during Covid-19 when the closure of the Porgera mine and weak external demand for commodities significantly weakened growth and the fiscal position. Second, the volatility of resource revenues poses risks to debt sustainability. At the current juncture, public finance has benefited from strong boost in resource revenues. However, international experience shows that pressures to scale up spending during booms may lead to unsustainable expenditure envelope, exposing countries to rapid and painful fiscal adjustments during price reversals. Finally, PNG also faces the challenge of using income from the resource

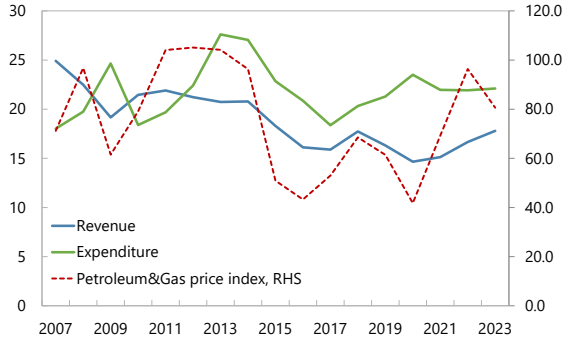
Figure 2. Growth and Fiscal Positions

Real Growth
(Percent)



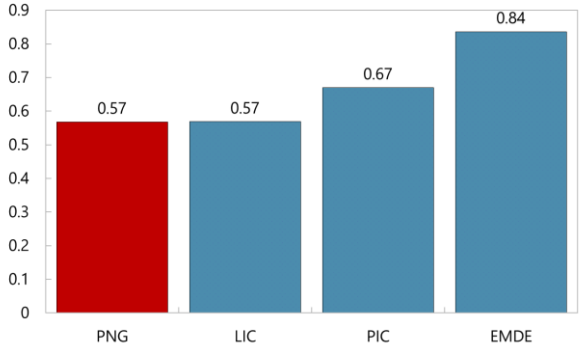
Sources: NSO and IMF staff calculations.

Fiscal Revenues and Expenditures
(Percent of GDP)



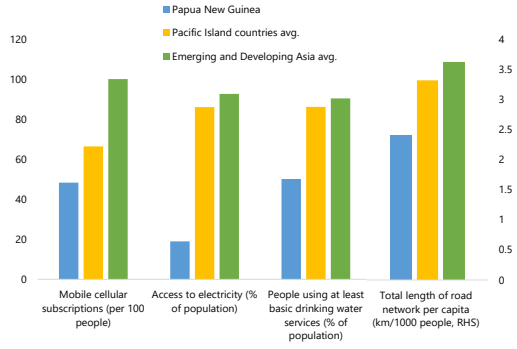
Sources: PNG authorities; WEO; and IMF staff calculations.

Human Development Index (2022)
(Index Range from 0-1)



Sources: UNDP and IMF staff calculations.

Access to infrastructure (2022)



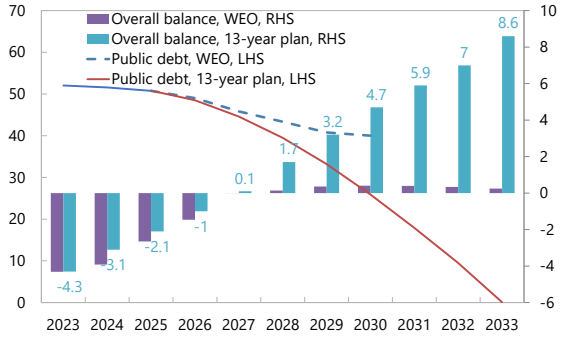
Source: IMF staff calculations, based on World Bank's World Development Indicators and CIA data.

sector wisely. While the country has large development needs and should raise human and physical capital, it should also avoid pro-cyclical fiscal policy with potential "Dutch disease" effects (Figure 2).

3. The authorities adopted an ambitious 13-year fiscal repair plan to address debt risks.[1] The 13-year Budget Repair and Reconstruction Plan was introduced in the 2022 budget, aiming at reaching a balanced budget by 2027 and reducing debt to 40 percent by 2028, and to zero by 2033 (Figure 3). While the ambitious consolidation plan is largely seen as aspirational and is not legally binding, it corresponds to reaching a fiscal surplus of over 8 percent of GDP in 2033 from a deficit of 3.4 percent in 2024. Such a fiscal consolidation is almost unprecedented in a cross-country comparison.

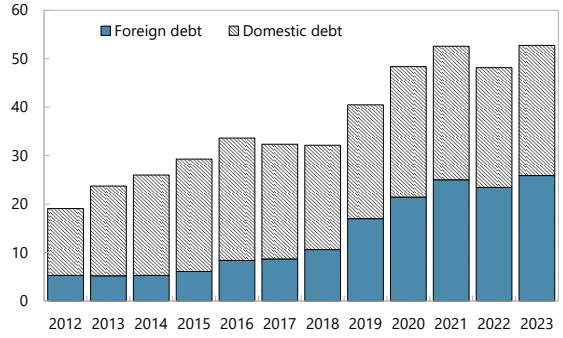
4. While public debt has increased, its composition shifted toward greater exposure to external concessional financing to mitigate debt risks. While the stock of public debt increased to above 50 percent of GDP, the creditor composition has gradually shifted away from commercial loans towards official multilateral and bilateral financing (Figure 4). At the same time, the share of domestic debt has declined from its peak of around 80 percent of total public debt in 2015 to 50 percent in 2023. More recently, domestic debt stock has further declined to 44 percent of total debt, due to the significant tightening of domestic liquidity conditions. The increasing reliance on external concessional financing has contributed to the improvement of debt sustainability indicators in the medium term.

Figure 3. Public Debt and Overall Balance Projections (Percent of GDP)



Sources: PNG Department of Treasury and IMF staff calculations.

Figure 4. Composition of Public Debt (Percent of GDP)



Sources: PNG Department of Treasury and IMF staff calculations.

5. Strengthening the fiscal framework could help in enhancing its credibility and reducing public debt risks (Box 1). The current fiscal framework lacks clarity about the debt path as the 13-year plan intends to bring debt to around 40 percent of GDP in 2028, and further down to zero by 2033—involving significant consolidation that would constrain the government's ability to address PNG's significant development needs—while the amended Fiscal Responsibility Act (FRA, 2023) suggests that the public debt should be below 40 percent of GDP over the medium term. Such ambiguity regarding the debt targets could undermine the credibility of the fiscal framework

[1] Under the Low-Income Country Debt Sustainability Framework (LIC-DSF), PNG's public debt is assessed as sustainable but at a high risk of debt distress with weak debt-carrying capacity.

and complicate fiscal policies. In addition, the current fiscal framework lacks a credible operational rule that ensures achievement of fiscal objectives: despite the existence of a non-resource primary balance rule set in the FRA, only the latest 2024 and 2025 budgets referenced the rule, reflecting a disconnect between fiscal policies and fiscal rules.

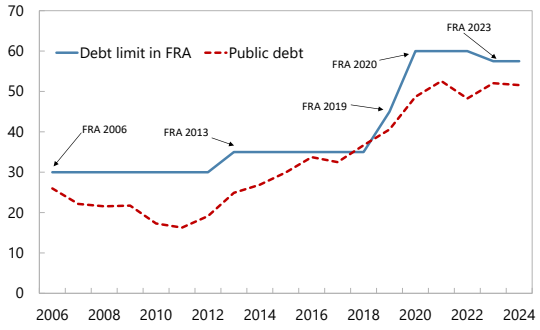
6. It is worth noting that maintaining a healthy market for public debt can support growth and facilitate financial market development. Theoretical models have derived the level of public sector debt below which it has a positive effect on growth,[2] and recent evidence, including Reinhart et al. (2015), emphasizes the positive role of public debt in financial sector development by providing a relatively safe asset or giving access to local-currency denominated government assets. Government bonds also provide a form of collateral for depositors, which increases their willingness to invest in riskier but profitable assets, thus deepening financial markets (Kumhof and Tanner, 2005).

7. This paper is structured as follow. Section II will discuss the current fiscal framework in PNG. Section III will discuss the selection of a fiscal anchor and fiscal rule in PNG. Section IV will calibrate the fiscal anchor and rule and provide general principle in building an exit clause to the fiscal framework. Section V will propose institutional PFM reforms to enhance the credibility of the framework.

B. The Existing Fiscal Framework in PNG

8. PNG's current fiscal framework consists of a legally mandated debt limit and an implicit debt anchor, but both are subject to frequent revisions, undermining their credibility. The 2006 FRA placed a ceiling of 30 percent of GDP on the level of public debt.[3] However, this has not effectively guided or constrained fiscal policy since then, even in the absence of significant external shocks. In the past 5 years, the debt ceiling has been changed on three occasions (Figure 5): to 45 percent of GDP in 2019, to 60 percent of GDP in 2020[4], and to 57.5 percent of GDP in 2023, with plans to reduce this back to below 40 percent of GDP from 2033 onwards (FRA 2023). In addition to the debt ceiling, the FRA amendment (2017) also stipulated a range of debt that the government should seek to maintain in the medium term, i.e., an implicit debt anchor, between 30 and 35 percent of GDP. The debt range was revised three times in the past

Figure 5. Statutory Debt Limit and Public Debt



Sources: FRA and IMF staff calculations.

[2] For example, see Checherita-Westphal (2014). However, empirical evidence on the optimal level of public debt varies significantly, ranging from 20 percent of GDP to 90 percent of GDP (Reinhart and Rogoff 2015) depending on country-specific characteristics, such as income levels, and estimation methodologies.

[3] Fiscal Responsibility Act (2006).

[4] Fiscal Responsibility Act (2020).

five years (in 2019, 2020, and 2023, respectively). The frequent increases in the debt limit and changes in debt anchor undermine their ability to guide fiscal policy and encourage longer-term sustainability.

9. The current framework also has a non-resource primary balance rule, but the rule is not linked to the implicit debt anchor and has not guided fiscal policy in practice. The FRA 2017 amendment set a balanced budget rule that requires the fiscal strategy to "target a zero average annual non-resource primary fiscal balance over the medium term, provided the fiscal outcomes remain consistent with the debt limit". However, it is not clear which fiscal target the fiscal rule intends to achieve, and it does not seem consistent with both the debt anchor in the FRA and the 13-year plan target. In practice, the fiscal rule has not been implemented until the 2024 and 2025 budgets when the non-resource primary balance is expected to reach a small surplus by the end of the forecast period.

10. The framework includes a sovereign wealth fund to smoothen economic fluctuation and achieve intergenerational equity. The government passed legislation in 2015 to establish a sovereign wealth fund, consisting of a stabilization fund and a development fund, to smooth revenue fluctuations and save for future generations. However, at present these funds have not yet been activated and remain dormant.

11. In addition, the current fiscal framework is complemented by the high-level Medium-Term Development Plan (MTDP IV) that specifies investment needs, but its link to the current fiscal rules is not clear. The MTDP sets 12 strategic priority areas (SPAs) of investment to facilitate growth and employment, with a total expenditure envelope of K51 billion (equivalent to 8.4 percent of estimated GDP in 2024) between 2025 and 2029, of which K30 billion is financed by the central government. However, the significant development investment needs may create a tension with the government's objective of rapidly reducing the public debt levels.

12. To sum, PNG's fiscal framework has not been adequate for guiding policy and mitigating public debt risks. Public debt in PNG increased significantly since the GFC and—although stabilizing more recently—it remains at a high risk of distress, reflecting shortcomings in the fiscal framework, including with regard to responses to commodity prices fluctuations and other external shocks. Addressing these shortcomings would enhance their credibility and help in guiding annual budgets in achieving the authorities' fiscal objectives.

C. Selecting a Medium-Term Fiscal Anchor and Operational Rules

13. A well-designed fiscal framework is generally structured with two pillars: i) a fiscal anchor linked to the final objective of fiscal policy, and ii) one or more operational rules on fiscal aggregates. The selected anchor and operational rules need to be simple to monitor and communicate given PNG's low capacity and the need to build credibility. They should also address debt risks, including from commodity price volatility and uncertainty regarding the extent of natural resource production, while balancing economic stability and development needs.

A Medium-Term Fiscal Anchor

14. The literature offers two possibles debt anchors for resource-rich economies:

- ***Public debt anchor*,** which provides a guide for medium-term fiscal expectations to avoid repeated fiscal slippages (Eyraud et al. 2018).
- ***Net wealth anchor*,** which is normally defined as net financial assets plus resource wealth underground, constant either in i) real terms, ii) as a share of non-resource GDP, iii) in real per capita terms (Eyraud et al. 2023).

15. For PNG, a public debt anchor appears to be more appropriate. Calibrating a net wealth anchor may prove difficult as it requires an estimate of long-term resource revenue, which is often hard to estimate in fragile states, especially when there is large uncertainty about the size of the natural resource endowment. In the case of PNG, while data on natural resource reserves is available, operational challenges arise from the high uncertainty surrounding these estimates. Moreover, the current reserve estimates seem insufficient for PNG for the implementation of the net wealth anchor. In addition, the approach may involve sizeable revisions of expenditure plans after large commodity price shocks. Conversely, a debt anchor would align with the authorities' priority of ensuring debt sustainability and can be easily communicated and integrated into the 13-year plan. When well-calibrated, a debt anchor is within the government's policy discretion and can strengthen the credibility of the fiscal framework by ensuring that debt remains below its statutory limit in almost all circumstances. To better align with PNG's resource-rich context, it could be helpful to monitor developments of natural resources and assess how those developments could affect long-term sustainability of public finances.

Selecting Operational Fiscal Rules

16. In the case of a resource-rich developing country like PNG, "good" operational fiscal rules are generally selected on five criteria:

- *Maintaining fiscal sustainability*: Compliance with the rules should ensure long-term debt sustainability.
- *Smoothening economic cycle*: Following the rules should not increase (and might even decrease) economic volatility. It also requires that the rules let automatic stabilizers operate and allow discretionary countercyclical changes in taxes or expenditures.
- *Simplicity to monitor and communicate*. Compliance with the rule should be easy to verify and should be easily understood by decision makers and the public.
- *Neutral on expenditure composition: the rules should avoid incentivizing expenditure adjustment that shifts spending from development needs.*

- *Incentive to mobilize revenue: the rules should incentivize revenue mobilization by providing long-term constraints on fiscal policy, which can create a need for increased revenue to meet fiscal targets.*

All these criteria may not be simultaneously achievable, at least with a single fiscal rule.[5] To achieve multiple objectives, countries may need to adopt multiple fiscal rules while be mindful that too many rules can complicate fiscal policy making and result in overlap and inconsistency of targets. In addition, the literature emphasizes that compliance is a crucial factor in designing an effective fiscal rule. This is especially pertinent for fragile states with limited capacity, where well-designed and sophisticated fiscal rules often suffer from weak compliance, providing little guidance for fiscal policies.

17. There are several candidates of fiscal rules for resource-rich countries like PNG. Table 1 summarizes the pros and cons of each of the following rule regarding different considerations.

- ***Nominal budget balance rule.*** Nominal budget rules, which are generally expressed in percent of GDP, impose limits on the headline or primary fiscal balance. By constraining a fiscal aggregate that primarily influences debt dynamics, nominal budget balance rules are directly linked to preserving debt sustainability. They are simple and easy to communicate to the public and are easy to compute and monitor. However, they do not adjust for the economic cycle, which limits their ability to foster macroeconomic stabilization.[6] The budget balance rules can also reduce the quality of the budget composition as they are silent on the composition of fiscal adjustment needed, such as excessive cuts in capital spending that hinders long-term growth.

- ***Structural balance rules.*** Structural balance rules correct the overall balance for the output gap and the commodity gap. They measure the fiscal position that the government would display if GDP were at potential and commodity prices were at their long-term level. They can provide greater economic stabilization than the overall balance rule but are more difficult to compute and monitor as it is challenging to identify whether commodity price movement is cyclical or structural. Like overall balance rules, structural balance rules are also silent on the composition of fiscal adjustment.

- ***Expenditure rules.*** Expenditure rules set limits on total, primary, or current spending, in either absolute terms (levels) or growth rates, with time horizon typically ranges from three to five years (Lledo et al. 2017). They are easy to monitor and enforce than other rules and may have higher compliance rate than other rules (Cordes et al. 2015). Expenditure rules can support macroeconomic stabilization, provided that the limits are defined in levels or growth rate, by constraining spending during temporary economic booms. While expenditure rules targeting

[5] For example, a simple overall balance rule can be extended to structural balance rules by adjusting one-off measures and cyclical factors on top of the overall balance. This extension serves both debt sustainability and economic stability purposes. However, the design of extended structural balance rules is more complex and poses challenges in terms of monitoring and communicating them to the public.

[6] For example, in bad times, the rule might force a country to consolidate to offset the cyclical decline in revenues. In good times, the rule cannot prevent a country from spending windfall revenues (Blanchard and Giavazzi 2004).

aggregate spending can induce lower level of public investment as they do not specify the composition of spending, such rules targeting current spending could avoid excessive cut in capital spending.

- ***Revenue rules.*** Revenue rules set floors or impose ceilings on government's income proceeds, often to boost revenue collection. They could be adapted to require saving revenues above a certain threshold to mitigate economic volatility during commodity boom period. However, an important weakness is that they only constrain the allocation of revenues between saving and spending, but do not impose limits on borrowing or constrain spending, thus do not ensure fiscal sustainability.

18. This paper proposes a primary balance rule to achieve PNG's medium-term debt anchor.[7] First, the priority of fiscal strategy is to ensure debt sustainability. A primary balance rule can be very effective in preserving debt sustainability by constraining the fiscal aggregate that primarily influences debt dynamics in PNG. Second, such a rule would be easy to monitor and control in PNG, particularly given its low capacity and the fact that gaps in national accounts data may complicate the implementation of structural balance rules. Third, a primary balance rule is relatively easy to communicate to the broader public and is more closely related to the authorities' commitment to a balanced budget in 2027 compared to the current non-resource primary balance rule, allowing the authorities to raise public awareness about the rule, and more importantly, build credibility over time.

Table 1. Papua New Guinea: Pros and Cons of Different Types of Fiscal Rules

	Budget Balance Rule	Cyclically-Adjusted Budget Balance Rule	Expenditure Rule	Revenue Rule
Simple to understand and monitor				
Direct link to debt sustainbility				
Support macroeconomic stabilization				
Neutral on expenditure composition				
Incentive for revenue mobilization				

Source: IMF FAD.

[7] A recent successful case is Jamaica. After significant fiscal deterioration since early 2000s, Jamaica adopted in 2012 a fiscal rule of overall balance anchored by a debt ceiling of 60 percent of GDP, with strengthened procedural rules and a sanctions regime to encourage compliance. Since then, and supported by domestic debt restructuring, Jamaica has successfully reduced its debt-to-GDP ratio from 144 percent of GDP to 72 percent in 2023.

D. Calibrating the Fiscal Anchor and Fiscal Rule for PNG

19. As discussed above, PNG needs an operational rule-based fiscal framework that guides public debt towards its medium-term anchor. This section will determine a debt limit, and calibrate the debt anchor and fiscal rule for PNG.

Debt Limit

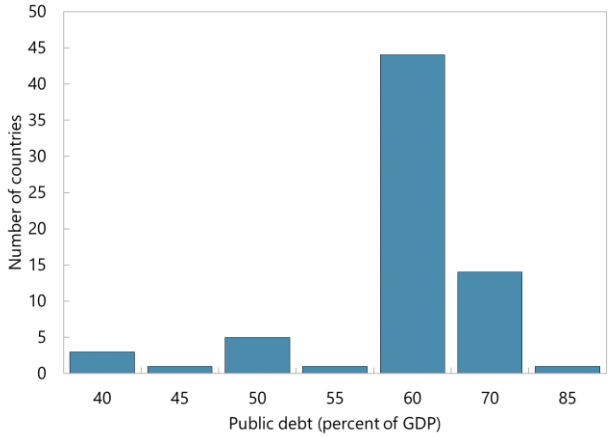
20. A debt ceiling is the maximum public debt level that prevents the country from debt distress and hence should not be exceeded in almost all circumstances. The public debt limit serves as a reference point for the debt anchor calibration, which is necessarily set below it to minimize the risks of breaching it. FRA (2020) sets the maximum debt at 60 percent of GDP for 2020-2025 and from 2030 onwards at to 40 percent of GDP. We use two approaches to determine the maximum debt limit for PNG: (i) a prudential approach, and (ii) growth friendly debt, although there is considerable uncertainty on how to assess it for a country like PNG.

21. The prudential approach calculates the maximum debt limit beyond which debt cannot stabilize under stress periods even with the most feasibly aggressive consolidation efforts. Specifically, the maximum debt limit is determined as the ratio of the highest primary balance divided by the interest-growth differential under stress.[8] PNG's highest primary balance (three-year moving average) since GFC was 2.3 percent of GDP in 2011, while the largest interest-growth differential was 4.2 percent in 2020, which results in a debt limit at 54 percent of GDP.

22. The growth friendly debt is the level of debt, of which further increases would have negative effects on economic growth, leading to a feedback loop to debt dynamics. Possible reasons for the negative effect of high debt on growth include the crowding-out of the private sector, higher exposure to risks of sudden shifts of interest-growth differentials (Lian and others 2020), or weaknesses in public debt management capacity. Reinhart et al. (2015) concluded that high debt-to-GDP ratios tend to be associated with lower growth outputs in emerging countries: adverse effects become visible with a debt ratio above 60 percent of GDP and aggravated beyond 90 percent of GDP.

23. Combining the two approaches, a debt limit of 60 percent of GDP, which is broadly consistent with the authorities'

Figure 6. Distribution of Public Debt Ceilings



Source: IMF fiscal rule database.

[8] Specifically, the prudential approach calculates $d^* = pb_{max}/(r-g)_{stress}$, where d* is the maximum debt limit, pb_max is the maximum primary balance, r-g is the interest-growth differential under stress.

FRA, is deemed appropriate.[9] The maximum debt limit is close to that of the prudential approach and consistent with a growth-friendly debt level. It is also comparable to most countries and regional peers, with 44 countries adopting a debt ceiling of 60 percent of GDP worldwide (Figure 6).[10]

Calibrating a Fiscal Anchor

24. Given the debt limit, we need to identify a safe buffer to derive a debt anchor. The safe buffer ensures both that debt can remain below the limit even under large and negative shocks, and that policymakers have sufficient time and space to take corrective measures if debt starts trending up. The buffer is mainly determined by the historical economic and fiscal shocks, macroeconomic outlook in the medium term, and policy makers' tolerance of the probability that MT debt would breach the limit.

- The historical shocks are calibrated using macroeconomic variables from the WEO database, which is consistent with the DSA.[11]
- To simulate medium-term shocks, we incorporate medium-term macroeconomic projections, including the growth path, interest rates, primary balance, contingent liabilities, and debt structure (see more detailed discussion in the next paragraph).
- The tolerance level indicates the extent of which policymakers are willing to accept a breach of the debt limit in the event of shocks. A higher tolerance level indicates that the set debt limit could be exceed with a higher probability.

Table 2. Calibrated Fiscal Anchor under Different Tolerance Levels

	Scenario 1	Scenario 2	Scenario 3
Tolerance level (percent probability)	0	10	15
Anchor	32	38	39

Source: IMF staff calculations.

[9] The debt threshold in the DSF-LIC framework is different from the debt limit discussed in this paper. The DSF-LIC debt threshold is estimated based on PNG low debt carrying capacity and suggests that the maximum PV of total debt for PNG is 35 percent of GDP. The debt limit in this paper is a more stringent limit that once it is breached, public debt cannot be brought back to a sustainable level even with reasonably strong consolidation.

[10] To avoid frequent modification of the FRA, the authorities could maintain the current debt ceiling of 57.5 percent of GDP, which is close to the proposed debt ceiling of 60 percent of GDP.

[11] The calibration of historical shocks entails estimating the distribution of macroeconomic and fiscal shocks derived from a student-T distribution based on annual data for key macroeconomics and fiscal variables. These shocks are subsequently used to perform simulations of future debt trajectories based on the standard debt dynamic equation and the fiscal reaction function (Eyraud, L. 2018).

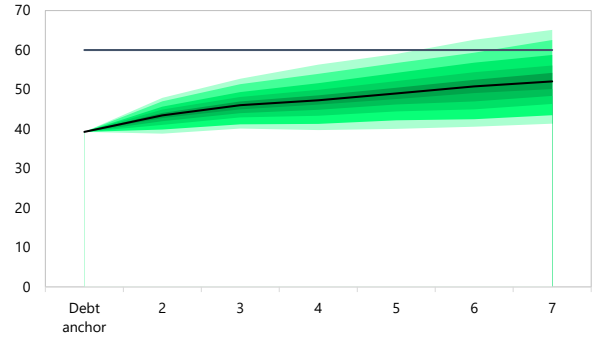
25. We consider three scenarios with different tolerance levels. We consider a probability of 0, 10, and 20 percent that debt will breach the limit of 60 percent of GDP over the medium term.[12] The scenarios and results are shown in Table 2.

26. The calibrated debt anchor is set between 32 to 39 percent of GDP, depending on the specified tolerance level. For instance, with a tolerance level of 10 percent, the calibrated debt anchor stands at 38 percent of GDP. This indicates that, if public debt stands at this level, there is a probability of 90 percent that it will remain below 60 percent of GDP in the medium term even in the face of various economic shocks.[13]

27. A prudent debt anchor is estimated to be between 30 and 40 percent of GDP. By maintaining public debt at around the anchor, PNG will be able to withstand typical adverse macroeconomic shocks without breaching the maximum debt limit with at least 85 percent probability in the medium term. In addition, the calibrated debt anchor is within the range required by the FRA amendment (2023), making it more feasible to implement. For illustrative purposes, the rest of the paper will use the midpoint of 35 percent of GDP as the calibrated debt anchor.

Figure 7. Evolution of Debt Path under Potential Shocks (Starting from the Anchor)

Debt Anchor (Tolearance Level at 15 Percent)



Sources: PNG Department of Treasury; and IMF staff calculations.

Calibrating a Deficit Rule

28. This section will calibrate a path for primary balances to guide public debt to its anchor of 35 percent of GDP by 2032, in line with the medium-term priority to enhance debt sustainability. We build in a transition period before the primary balance reaches its steady state level, i.e. the level which would stabilize the public debt at its anchor. In theory, the deficit rule can be implemented in a flexible manner, depending on the timing and sequence of the intended adjustment path. The proposed deficit rule with a transition period is often recommended for countries aiming to implement multiyear government plans with specific fiscal targets to be achieved by set deadlines. The calibration method balances between gradual consolidation that

[12] The underlying assumption on primary balance is consistent with WEO until 2030, with a primary surplus of 2.5 percent of GDP from 2027 until debt reaches its anchor in 2030.

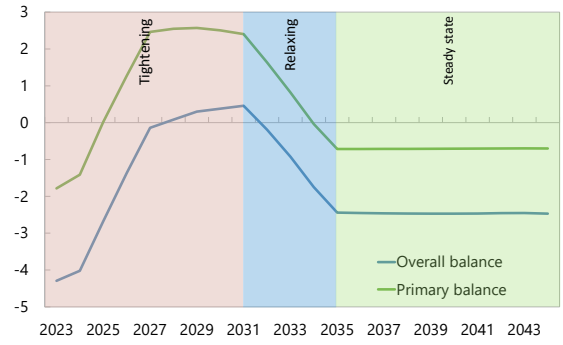
[13] While subject to a high degree of uncertainty, simulations of climate-related shocks suggest that at a level of 31 percent of GDP, there is 90 percent probability that public debt could withstand such shocks and still remain below 60 percent of GDP over the medium term.

avoids excessive fiscal tightening and is politically feasible and a credible timeline for reaching the debt anchor.[14]

29. Consistent with the DSA, we calibrate a primary balance rule to ensure public debt reaches its anchor by 2032. Reaching a primary balance of 2.5 percent of GDP by 2027, in line with the 13-year plan, and maintain the primary balance for another three years would ensure that public debt decline to 40 percent of GDP by 2030. Then a gradual easing of fiscal policy towards its steady-state deficit level would continue to lower debt towards its anchor by 2032 while allowing more space to address development needs and build political support for continued reforms. During the transition period, concrete measures should be detailed in the Medium-Term Fiscal Framework (MTFF) or budget documents, and corrective action should be put in place should a slippage occur to bring primary balance back on track. It is also worth noting that the primary balance rule is a floor of primary balance, and windfall resource revenues should be saved to avoid procyclical policies and allow faster convergence to the debt anchor.

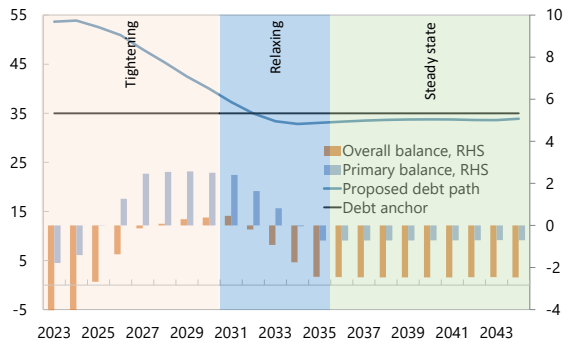
Figure 8. Fiscal Rules and Debt Path

Fiscal Balance with Proposed Fiscal Rule
(Percent of GDP)



Sources: PNG authorities and IMF staff calculations.

Debt Path with Proposed Fiscal Rule
(Percent of GDP)



Sources: PNG authorities and IMF staff calculations.

30. Once public debt reaches its anchor, the primary deficit should be recalibrated to allow for greater space for PNG development needs. A debt-stabilizing primary deficit is calibrated as $b^* = \lambda d^*$, where b^* is the debt-stabilizing primary balance, d^* is the debt anchor, and λ is the growth-adjusted interest rate. Once public debt reaches the anchor of 40 percent of GDP in 2030, the target primary balance shall be gradually reduced to -0.7 percent of GDP, which would stabilize public debt at around 35 percent of GDP in the longer term while also providing more fiscal space for meeting important development needs.

31. We assess the proposed pace of consolidation and convergence timeline appropriate based on the following considerations. A more gradual consolidation path relative to the authorities' 13-year plan will enhance the credibility of fiscal adjustments and reduce the drag from fiscal tightening. Moreover, while the 13-year plan would yield a higher primary balance and bring public debt to its anchor sooner, it could also raise concerns regarding its political and social

[14] For alternative methods, see Eyraud et al. (2018).

feasibility, potentially undermining the credibility of the fiscal anchor and the fiscal framework. A more gradual, but still ambitious, medium-term convergence period would help the government establish a track record, thereby enhancing the overall credibility of the consolidation process and potentially lower the risk premium of government bonds.

32. In parallel, continued efforts are needed to further improve the financing mix to lower the PV of debt and borrowing costs. For domestic financing, issuing longer term Treasury bonds would decrease the PV of public debt, reducing rollover risks, and put PNG's debt below the threshold under the DSA-LIC framework. For external financing, the authorities should consider further increasing external concessional borrowing as domestic debt is relatively expensive in PNG while managing exchange rate risks prudently.

Other Considerations: Sovereign Wealth Fund and Escape Clause

33. Over the longer term, consideration should be given to a complementary expenditure rule to encourage saving of procyclical resource revenues. While enhancing debt sustainability through ongoing fiscal consolidation—including clearing domestic arrears—remains the priority of the fiscal framework in the medium term, an adoption of expenditure cap would help to ensure that overperformance of revenue is saved and used prudently. In this regard, a nominal growth cap on overall spending is preferred because i) it is relatively independent of GDP growth, thus helping to support economic stabilization, and ii) it is more transparent than the one based on real terms, thereby improving compliance (Cordes et al. 2015). Moreover, capping overall spending (as opposed to a subset of spending) could prevent creative accounting practices such as reclassifying goods and services spending as capital spending in Public Investment Programs (PIP). That said, an introduction of such expenditure rule would require building capacity to monitor expenditure, including tracking domestic arrears related to goods and services, and should thus be seen as a medium-term priority.

34. Under the current projections, a ceiling of about 6 percent on the overall nominal expenditure growth could supplement the primary deficit rule and facilitate saving of additional revenues. Such ceiling would ensure that the primary balance complies with the fiscal rule at -0.7 percent of GDP in the steady state. The expenditure cap is consistent with, though lower than, the average expenditure growth rate of 8.6 percent over the past decade, a period during which major resource projects were completed. If commodity prices underperform the budget's assumptions, resulting in a shortfall of revenue, the expenditure rule will not be binding, as the primary balance rule will mechanically ensure compliance with the expenditure rule. The expenditure rule becomes binding in the event of a positive revenue surprise, such as that resulting from favorable commodity prices. The expenditure rule would ensure that the authorities save the additional procyclical resource revenues to build a fiscal buffer or allow for a quicker reduction of public debt than initially proposed. The expenditure rule could involve a dedicated clause to account for the additional resource revenues from major resource projects.

35. A well-designed escape clause could provide sufficient flexibility to cope with shocks. Such shocks will make observance of many fiscal rules unrealistic, undesirable, and/or impossible. By formalizing deviations from the rules within the framework, there is less need to simply abandon

fiscal rules altogether. This will bolster the credibility of the framework overall by ensuring it is durable even in the presence of significant fiscal policy uncertainty. There can be many ways of designing such clauses, but typically formal regulation would outline: (i) a description of the types of shocks to be accommodated by the clause; (ii) the period over which a deviation from the rules is permitted; (iii) the maximum magnitude of deviation permitted; (iv) the pathway to return to the fiscal rules; (v) the institutional responsibility for triggering the clause; and (vi) institutional responsibility for monitoring its implementation. Many resource-rich countries, such as Chile and Saudi Arabia, operate an escape clause that defines 'economic shock' in terms of sudden and unexpected changes in prices of key resource exports to reflect the impact that this will have on fiscal aggregates. Box 2 provides a few examples of escape clauses in small island states.

36. Lastly, it may be desirable to save excess commodity revenues into a sovereign wealth fund to avoid procyclicality and ensure that valuable resources are well spent. In principle, using resource revenue windfall to scale up investment in physical and human capital may be preferable to saving in a sovereign wealth fund, especially in LICs facing large infrastructure gaps (Collier et al. 2010). However, securing the expected benefit of investment has been challenging in practice. First, procyclical resource revenue is less desirable as a source of sustainable finance for capital expenditures given its high uncertainty. Second, IMF (2014) shows that only half of the increase in public investment translated into productive capital in EMDEs during 1980-2012. Such low multiplier could be due to multiple factors, including weak public investment management, capacity constraints, macro vulnerabilities that triggers the wage-inflation spiral. Last, excessive public investment could result in inflationary pressures and lead to sharp real exchange rate appreciation that could adversely affect the non-resource exporting sectors. Therefore, using resource revenue windfalls to finance investment should be done prudently, consistent with capacity limits and guided by sound governance practices.

E. Supporting the MTFF with PFM reforms

37. Fiscal rules sit within a broader MTFF, which should contain several core elements. Specific numerical rules to anchor and guide medium-term fiscal policy should be seen as part of a wider medium-term fiscal policy framework. While a MTFF can operate at different levels of sophistication, some elements are key, namely: a medium-term fiscal strategy, medium-term fiscal projections, and an assessment of fiscal risks. An effective MTFF also sets out the key roles and responsibilities of major stakeholders, including those that are often outside government such as Parliament, the Supreme Audit Institution, and in some cases an independent Fiscal Council.

38. An effective MTFF – and its fiscal rules – must link directly to the budget process. For MTFFs to have an impact, they must have a direct relationship to the government's plans for expenditure, revenue, deficit, and debt. Since expenditure is the most directly controllable part of the fiscal equation, governments need to ensure in particular that expenditure plans – as set out in the annual budget – are directly derived from the MTFF. This is typically done by making at least the first year of the MTFF's expenditure projection the binding aggregate ceiling for the forthcoming budget year; and ensuring that the production of key MTFF outputs (e.g. the fiscal strategy, fiscal

projections) allow for their timely input into the budget process. Where an MTFF does not inform the detail of the budget process, it risks becoming an academic exercise rather than a policy lever.

39. PNG's current set of fiscal and budget documents contain many elements of these key considerations and include examples of good practice. In terms of fiscal strategy, government has set out its plans for a 13 year 'budget repair' process; and has produced a series of stand-alone medium-term fiscal strategies (the latest version being 2017-2022). The opening sections of the annual budget documents summarize fiscal strategy goals, outline a discussion of global and national macroeconomic trends, and put forward three-year forecasts of key fiscal aggregates. The proposed fiscal plan is then compared to the fiscal anchors and rules to which government has already committed, alongside a short discussion of key macroeconomic and fiscal risks. Previous years' expenditure estimates are briefly compared to mid-year outturn forecasts and supplementary budgets. An annual mid-year economic and fiscal outlook provides a mid-year and end-year forecast update of key fiscal aggregates, alongside a narrative summary of key revenue and expenditure developments. These points of strength are identified in the PEFA assessment from 2020 – although somewhat dated now – which noted good scores in the areas of macroeconomic forecasting and fiscal strategy.

40. Other components of an effective MTFF are currently lacking, notably a direct link to the budget. PNG's fiscal and budget documentation provides no clear reconciliation, explanation, or discussion of difference between successive vintages of fiscal forecasts and actual outturn. There is no detailed discussion of current progress against the overall 13-year budget repair strategy and/or supporting five-year medium-term fiscal strategies. Importantly, there is a question over the role of the published MTFF in guiding expenditure plans, and discrepancies in budget documents suggest a disjuncture between fiscal policy and the actual budget.[15] In addition, the discussion of fiscal risks is somewhat limited.

41. Reliable fiscal data is critical for MTFF delivery, and this remains significant a challenge in PNG. The 2020 PEFA assessment noted that financial statements from many government agencies, statutory authorities, and provincial authorities are frequently out of date, and the overall government accounts for several previous years are still to be audited. In terms of fiscal reporting coverage, previous IMF technical assistance has noted that government does not have a full list of public entities that have been correctly classified into appropriate sectors for the purposes of fiscal and budgetary reporting. Regarding budgetary reporting in particular, IMF technical assistance has highlighted a number of challenges in budget execution, cash management, and expenditure control processes which contribute to challenges in tracking and controlling financial flows. This both weakens financial reporting and undermines the general implementation of the budget. Most notably, the stock of alleged arrears, which is still subject to government's verification, may be fiscally significant.

[15] For example, in 2023, the fiscal policy discussion put forward total expenditure and net lending as K25,567 million, whereas later chapters of the 2023 budget document put forward total appropriation as K39,155m. For 2024, the figures are K27,376 million and K47,742 million respectively.

42. PNG should invest in additional institutional capacity to further develop its MTFF and therefore better support implementation of fiscal rules. The discussion above suggests that there are a number of good practices that PNG could build on so as to strengthen the MTFF; as well as several weaknesses to be addressed. The annual nature of the fiscal and budgetary cycle allows for gradual year-on-year improvement in performance if government can invest resources in the right areas. Such an investment will be necessary ahead of a potential adoption of more explicit and binding fiscal rules within the system since if key basic processes – notably production of reliable fiscal reports – do not function effectively, it will be difficult to operationalize even the most well-designed set of fiscal rules.

F. Conclusion and Policy Implications

43. PNG needs to improve the efficacy of the current fiscal framework to maintain debt sustainability and guide fiscal policies. The current fiscal framework in PNG lacks clarity about the debt anchor and there is an apparent tension between the fiscal targets between the FRA and the government's 13-year plan. Additionally, it does not have a credible operational rule that ensures the achievement of the fiscal objectives.

44. This paper calibrates a debt anchor and a primary balance rule to enhance the existing framework. We consider a debt anchor of between 30 and 40 percent of GDP to be appropriate and propose to implement a primary balance rule to achieve it. The proposed primary balance rule includes a transition period of several years which would facilitate the convergence of public debt to its anchor in 2032. This will be followed by a gradual fiscal relaxation until a debt stabilizing primary deficit of 0.7 percent of GDP is reached. In parallel, PNG should also invest in strengthening institutional capacity and improving the reliability of fiscal data to effectively implement these rules and navigate the challenges posed by resource revenue fluctuations, ultimately supporting fiscal sustainability and more inclusive growth.

45. Several additional aspects should be considered as for the design and implementation of the fiscal framework in PNG. First, over the longer term, consideration should be given to a complementary expenditure rule to encourage saving of excess resource revenues, which will help avoid procyclical fiscal policy, significant inflationary pressures, and adverse effects of a Dutch disease. Second, well-designed escape clauses will be needed to provide fiscal policy sufficient flexibility to respond to severe economic shocks while maintaining fiscal discipline. Finally, the operationalization of a sovereign wealth fund, aimed at managing resource revenues and promoting intergenerational equity, requires careful consideration of its structure and governance to ensure its effectiveness in contributing to fiscal stability and development objectives.

Box 1. The Basic Components of a Medium-Term Fiscal Framework

MTFFs originated in Australia in the 1980s and have since been adopted by numerous countries across various regions and income groups. The precise nature of MTFFs vary, but at heart they comprise a set of institutional arrangements for prioritizing, presenting, reporting, and managing fiscal aggregates - revenue, expenditure, balance, and debt – typically over a three-to-five-year period. By introducing a medium-term perspective into fiscal and budgetary decision making, MTFFs overcome the limitations of an annual and incrementalist approach to fiscal and budgetary policy, and provide a better understanding of the impact, trade-offs, and risks of policy choices. Overall, they aim to deliver a more effective fiscal policy, and therefore support overall sustainability.

The precise form of MTFFs varies. Design considerations include issues such as the coverage of the framework, time horizon, frequency of revision, the use of fixed or rolling frameworks, whether expenditure limits are binding or indicative, and whether to set the framework in nominal or real terms. The institutional framework also matters – to work well, MTFFs need a clear assignment of responsibility to different actors within government; and a clear set of institutional relationships between government, the legislature, national audit institutions, and potentially some form of independent fiscal council. There is single no 'right' answer to each of these questions. Countries will need to consider their own particular fiscal and institutional context to determine what kind of MTFF will make sense while being aware that MTFFs – and their precise arrangements – should evolve over time.

There are some common elements to all MTFFs:

- Medium-term projections for key macroeconomic variables and the main fiscal aggregates (revenue, expenditure, debt, and deficit).
- A fiscal strategy, which clearly states the government's fiscal objectives and targets for the main fiscal aggregates over 3-to-5-year period.
- A comprehensive assessment of fiscal risks that provides an understanding of their potential impact on government finances.

Fiscal frameworks in resource-rich economies typically aim for one or multiple long-term objectives, namely economic stabilization, insurance against large and persistent shocks, fiscal sustainability and intergenerational equity, and mitigation of Dutch disease. Regardless of the specific approach taken, the ability of an MTFF to achieve stated objectives depends on effective implementation. This means that MTFFs must be an integral part of fiscal and budgetary decision making and their conclusions must have a direct impact on government's decisions regarding revenue, expenditure, deficits, and overall debt. Without this, the MTFF can remain a paper exercise.

Source: IMF (2024) How To Note: Medium-Term Fiscal Frameworks

Box 2. Fiscal Rule Escape Clauses in Small Island States

Many small island countries operate MTFFs that include specific fiscal rules with some form of escape clause. In **Fiji**, amendments made in 2022 to the Financial Management Act (2004) allow for deviation from the fiscal strategy – which must be approved by Cabinet and communicated to Parliament – in the event of an 'economic shock', although the nature of this shock is not defined in the legislation. In **Saint Vincent and the Grenadines**, fiscal rules can be suspended in the event of: (i) a declared natural disaster, (ii) a public health epidemic, (iii) a decline in real GDP of two percent or more in a given fiscal year, or a cumulative decline equal to or greater than three percent over two consecutive fiscal years; (iv) a financial crisis, as declared by the Minister after consultation with the central bank. In **Jamaica,** a suspension of the fiscal rules can be triggered by a severe economic downturn, which must be independently verified by the auditor general as exceeding 1.5 per cent of GDP, and be subject to approval by Parliament.

References

Asian Development Bank. 2013. The Economics of Climate Change in the Pacific. Manila, the Philippines

Blanchard, O.J. and Giavazzi, F., 2004. Improving the SGP through a proper accounting of public investment. Available at SSRN 508203.

Checherita-Westphal, C., Hughes Hallett, A. and Rother, P., 2014. Fiscal sustainability using growth-maximizing debt targets. Applied Economics, 46(6), pp.638-647.

Cordes, T., Kinda, M.T., Muthoora, M.P.S. and Weber, A., 2015. Expenditure rules: effective tools for sound fiscal policy?. International Monetary Fund.

Eyraud, L., Baum, M.A., Hodge, A., Jarmuzek, M., Ture, H.E., Mbaye, S. and Kim, Y.B., 2018. How to calibrate fiscal rules: A primer. International Monetary Fund.

Eyraud, M.L., Gbohoui, W. and Medas, M.P.A., 2023. A New Fiscal Framework for Resource-Rich Countries. International Monetary Fund.

Lledó, V., Yoon, S., Fang, X., Mbaye, S. and Kim, Y., 2017. Fiscal rules at a glance. International Monetary Fund, pp.2-77.

Reinhart, C.M., Reinhart, V. and Rogoff, K., 2015. Dealing with debt. *Journal of International Economics*, *96*, pp.S43-S55.Tanner, E. and Kumhof, M., 2005. Government Debt: A Key Role in Financial Intermediation. International Monetary Fund.