INTERNATIONAL MONETARY FUND

# SOLOMON ISLANDS

## STAFF REPORT FOR THE 2019 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS[1]

January 21, 2020


Approved By
**Jonathan. D. Ostry (IMF)**
**Marcelo Estevão (IDA)**

Prepared by the staffs of the International Monetary Fund and the International Development Association


| | |
|---|---|
| **Risk of external debt distress:** | Moderate |
| **Overall risk of debt distress:** | Moderate |
| **Granularity in the risk rating:** | Substantial space to absorb shock |
| **Application of judgement:** | No |


*The external risk of debt distress rating for Solomon Islands has been maintained at moderate, given the high uncertainty surrounding medium-term growth prospects and the possibility of debt-financed spending for the Pacific Games. All external debt indicators remain below the relevant indicative thresholds under the baseline scenario but breach thresholds under the extreme stress test scenario (export shock). In a downside scenario, with a sharper decline in logging activities in 2020 and additional loans for the Pacific Games, an export shock would cause a prolonged breach of the thresholds of both the PV of external debt-to-GDP ratio and debt-to-exports ratio. The overall risk of debt distress remains moderate, reflecting a deteriorating fiscal position. Although the PV of public debt-to-GDP ratio remains below the 55 percent threshold under the baseline scenario, it would breach the threshold under the most extreme stress test (real GDP growth) from 2025 until the end of the projection period. A tailored natural disaster shock, which uses a shock of similar scale to the largest shock in Solomon Islands' history, causes a significant deterioration in debt sustainability in the aftermath of the event. To rebuild fiscal buffers and to enhance resilience against shocks, both stronger revenue mobilization measures and expenditure rationalization are needed. Although the DSA suggests there is space to absorb a shock, Solomon Islands often faces fiscal liquidity problems due to weak public financial management and the cash balance is currently at a low level.*


[1] The Solomon Islands Composite Indicator (CI) index, calculated based on the October 2019 WEO, is 2.72, indicating that the county's debt-carrying capacity is moderate. The classification of capacity has shifted from weak to moderate compared to the 2018 DSA, the calculation based on October 2018 WEO also signaled a moderate classification. Two consecutive signals are required for a shift in capacity classification according to the new "Guidance Note on the Bank-Fund Debt Sustainability Framework for Low-income Countries" (http://www.imf.org/en/Publications/Policy-Papers/Issues/2018/02/14/pp122617guidance-note-on-lic-dsf). The relevant indicative thresholds for the category are: 40 percent for the PV of debt-to-GDP ratio, 180 percent for the PV of debt-to-exports ratio, 15 percent for the debt service-to-exports ratio, and 18 percent for the debt service-to-revenue ratio. These thresholds are applicable to public and publicly guaranteed external debt.

# PUBLIC DEBT COVERAGE

**1. The coverage of public sector debt used in this report is central government debt, central government-guaranteed debt, and central bank debt, which is borrowed on behalf of the government.**[2] As of end-2017, central government-guaranteed debt were at US$15 million for Investment Corporation Solomon Islands, Solomon Islands Broadcasting Corporation, Solomon Islands Electricity Authority, Solomon Airlines, Solomon Postal and Western Province. The outstanding debts to all multilaterals (IMF, WB, ADB) stood at US$28.2 million (about 2 percent of GDP).

**Coverage of Public Sector Debt**

| | Subsectors of the public sector | Sub-sectors covered |
|---|---|---|
| 1 | Central government | X |
| 2 | State and local government | |
| 3 | Other elements in the general government | |
| 4 | o/w: Social security fund | |
| 5 | o/w: Extra budgetary funds (EBFs) | |
| 6 | Guarantees (to other entities in the public and private sector, including to SOEs) | X |
| 7 | Central bank (borrowed on behalf of the government) | X |
| 8 | Non-guaranteed SOE debt | |

# BACKGROUND ON DEBT

**2. Public debt remained steady at around 9.4 percent of GDP in 2018 following an increase in 2017.** In 2017, public debt rose by 1.6 pps of GDP and the pick-up in debt was due mainly to the issuance of domestic development bonds and disbursements from multilateral donors. In 2018, the government cleared 2017 and 2018 domestic arrears, which had been included as part of domestic financing. In addition, disbursements from multilateral donors were lower than expected in 2018. The Tina River Hydro project (TRHDP) has been delayed and is expected to begin in 2020. The government debt management framework sets a limit for the public debt-to-GDP ratio at 35 percent in nominal terms and for the debt-service-to-domestically-sourced-revenue ratio at 10 percent.

**3. Public and Publicly Guaranteed (PPG) external debt stood at US$98 million (7.2 percent of GDP) as of end-2018.** The International Development Association (IDA) and the Asian Development Bank (ADB) account for 39 percent and 50 percent of total public debt respectively. There were no explicit contingent liabilities—external debt guaranteed by the government—in 2018. Private sector external debt amounted to 0.9 percent of GDP in 2018.

**4. Public domestic debt increased to SI$245 million (2.2 percent of GDP) at end-2018**. The government issued SI$30 million in domestic development bonds in 2018, in addition to the SI$150 million

[2] The authorities have identified non-guaranteed SOE debt amounting to 1.2 percent of GDP. However, there are a number of data constraints which preclude the inclusion of this information in the debt sustainability analysis. The data shortcomings include no information on the SOEs' debt service and insufficient information on the SOEs' fiscal accounts. Staff continue to follow up with the authorities to rectify these data shortcomings. For this year's DSA, staff have incorporated non-guaranteed SOE debt in the contingent liability shock scenario by adjusting the default figure by 1.2 percent of GDP.

in domestic development bonds issued in 2017, both purchased by the Solomon Islands National Provident Fund (SINPF). In 2018, contingent liabilities for SOEs and Western Province stood at US$19 million.

**5. Both public and external borrowings are expected to grow in the medium term.** The government maintained its annual borrowing limit at SI$300 million in the 2019 budget[3] to finance key infrastructure projects, including the TRHDP and the Solomon Islands Submarine Cable Project, which are supported by many development partners, including Green Climate Fund, IDA, ADB, Australia and Korea.

# COUNTRY CLASSIFICATION

**6. As discussed in footnote 1, the country's debt-carrying capacity applied in the 2019 DSA is medium.** The Solomon Islands' Composite Indicator (CI) index, has been calculated based on the October 2019 WEO, is 2.72, indicating that the county's debt-carrying capacity is medium in the revised LIC-DSA framework. The classification has changed compared to the 2018 DSA after two consecutive signals in October 2018 and April 2019 WEO.

**Calculation of the CI Index**

| Components | Coefficients (A) | 10-year average values (B) | CI Score components (A*B) = (C) | Contribution of components |
|---|---|---|---|---|
| CPIA | 0.385 | 2.942 | 1.13 | 42% |
| Real growth rate (in percent) | 2.719 | 2.894 | 0.08 | 3% |
| Import coverage of reserves (in percent) | 4.052 | 54.214 | 2.20 | 81% |
| Import coverage of reserves^2 (in percent) | -3.990 | 29.392 | -1.17 | -43% |
| Remittances (in percent) | 2.022 | 0.000 | 0.00 | 0% |
| World economic growth (in percent) | 13.520 | 3.559 | 0.48 | 18% |
| CI Score | | | 2.72 | 100% |
| CI rating | | | Medium | |

[3] The 2020 Annual Borrowing Limit will be set as part of the budget process and will include all forms of public debt obligations such as direct borrowing by the Government, direct borrowing by SOEs, on lending arrangements and guarantees provided by the Government. A debt sustainability analysis is also undertaken annually, as part of the budget process, to determine an appropriate Annual Borrowing Limit.

# BACKGROUND ON MACRO FORECASTS

## A. Baseline Scenario

**7. The assumptions in the baseline scenario are similar to the previous DSA.** The baseline scenario incorporates the effect of natural disasters and climate change over the longer-term. The years 2019–24 are assumed to be disaster free to simplify the policy discussion of the near-term outlook. However, from 2025 onwards, the baseline incorporates the average long-term effects of natural disasters and climate change by lowering GDP growth by 0.3 percentage points (pps) annually, raising the current account deficit by 0.5 pps and increasing the fiscal deficit by 0.2 pps. The discount rate used to calculate the net present value of external debt remains at 5 percent. These are consistent with the findings of staff's research on the impact of natural disasters.[4] The main assumptions are:

- **Real GDP growth** is projected at 2.8 percent on average during 2019–29. The projection takes into account following factors: (i) on the upside, higher capital spending on key infrastructure projects, including TRHDP, the undersea cable project, and investments in road and air transport infrastructure, pushes growth up; but (ii) on the downside, these are outweighed by the risks from lax fiscal policy, a decline in logging activity, and global trade tensions due to close trade links with China.

- **Inflation** (measured by GDP deflator in USD terms) is projected to average 3.2 percent during 2019-29.

- **Non-interest current account deficit** is projected to widen to 10.3 percent of GDP on average over 2019-29 reflecting a high import content for key infrastructure projects and lower exports due to a long-term decline in logging activities. The reopening of the Gold Ridge Mine and the resumption of exports is now expected to be delayed until 2023. Gold production is assumed to peak from 2024 to 2027 and then to decrease gradually. Other mining activity (nickel and bauxite) is expected to come fully onstream over the longer run, this raises long-term growth rates slightly.

- **FDI inflows** are expected to increase on average to about 3.6 percent of GDP over 2019–29, slightly higher than last year's projection.

- **External borrowing and grants**: new disbursements for projects in the pipeline, including TRHDP, are expected to take place in the next five years (2019–24). From 2025 onwards, the level of new external borrowing is expected to be around 3 percent of GDP. Grants and the grant element of new borrowing are expected to decline over the medium term.

[4] Please see the detail in the IMF Working paper 18/108, "The Economic Impact of Natural Disaster in Pacific Island Countries".

- **Fiscal outlook**: the ten-year average of primary deficit is expected to increase at 3.9 percent of GDP during 2019–29. Domestic revenues are expected to decline over the medium term due to reduced logging exports whereas spending pressures from wage increases, constituency development funds and other non-priority spending are likely to remain high.

**Solomon Islands: Baseline Macroeconomic Assumptions**
(In percent of GDP, unless otherwise stated)

| | 2019 Baseline | Customized Scenario | 2018 DSA |
|---|---|---|---|
| | 2019-29 ave. | 2019-29 ave. | 2018-28 ave. |
| Real GDP growth | 2.8 | 2.6 | 2.9 |
| GDP deflator in US dollar terms (change in percent) | 3.2 | 3.2 | 4.2 |
| Non-interest current account deficit | 10.3 | 11.7 | 7.2 |
| Net FDI (negative = inflow ) | -3.6 | -3.6 | -3.1 |
| Primary deficit | 3.9 | 6.1 | 3.5 |

Source: IMF staff projections.

**8. The realism tool highlights that assumptions on the primary balance are conservative (Figure 4).** The deterioration in the primary deficit between 2018 and 2021 of 3 percent of GDP reflects declining revenues and increased spending based on current plans. The deteriorating fiscal position is based on conservative assumptions for declining revenue from logging activities and an increase in current spending. The assumption on real growth in 2019-2020 is lower than the projected growth paths calculated by the model since we expect the drag from the decline in logging to exceed any boost to growth from investment spending over the next few years. Two charts on public and private investment rates and their contribution to real GDP are not available due to a lack of data on the split between public and private investment.

# SCENARIO STRESS TESTS

## A. Natural Disaster Stress Test and Standard Tests

**9. Given the severity and frequency of natural disasters in Solomon Islands, a tailored stress test for natural disaster shock was conducted.** Solomon Islands is defined as a small developing natural disaster-prone state in the IMF board paper on small states and is automatically subject to the standard natural disaster shock.[5] In addition, a tailored shock was included. This is based on EM-DAT, the international disaster database, which shows that the country's largest damage from natural disasters

[5] One-off shock of 10 percentage points of GDP to debt-GDP ratio in the second year of the projection period (2020 for this case). Real GDP growth and exports are lowered by 1.5 and 3.5 percentage points, respectively, in the year of the shock.

during 1980–2016 was 14 percent of GDP. Thus, the DSA assumes a one-off shock of 14 pps to GDP on the debt-to-GDP ratio in 2020 and a reduction in real GDP growth and exports by 2.5 and 7.0 pps respectively.[6]

**10. A stress test for the combined contingent liability shock adjusts the default setting for SOE debts.** Explicit contingent liabilities, namely government-guaranteed debts, are already included in public debt. To reflect the level of implicit contingent liabilities (1.2 percent of GDP in 2018), we adjust the magnitude of the shock of SOE debts from the default value of 2 percent. We use the default value of 5 percent for financial markets.

**Combined Contingent Liability Shock**

| | | | | |
|---|---|---|---|---|
| 1 | **The country's coverage of public debt** | The central government, central bank, government-guaranteed debt | | |
| | | **Default** | **Used for the analysis** | **Reasons for deviations from the default settings** |
| 2 | Other elements of the general government not captured in 1. | 0 percent of GDP | 0.0 | |
| 3 | SoE's debt (guaranteed and not guaranteed by the government) 1/ | 2 percent of GDP | 1.2 | To reflect the size of implicit contingent liabilities |
| 4 | PPP | 35 percent of PPP stock | 0.0 | |
| 5 | Financial market (the default value of 5 percent of GDP is the minimum value) | 5 percent of GDP | 5.0 | |
| | Total (2+3+4+6) (in percent of GDP) | | 6.2 | |

1/ The default shock of 2% of GDP will be triggered for countries, whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

## B. Customized Downside Growth Scenario

**11. Given the uncertainty surrounding medium-term growth prospects, staff also constructed a customized downside growth scenario with a contraction of logging activity by 10 percent in 2020, a delay in mining activity picking up, and debt financing for the Pacific Games.** This shock is estimated to lead to a reduction of real GDP growth by 1.2 pps in 2020, equivalent to 1.5 SD of GDP growth in 2012-18. Growth is projected to return to its initial path after 2025. The 2019-29 average GDP growth rate is 0.2 pp lower than the baseline. The non-interest current account deficit would be 1.7 pps lower due to a sharp contraction in logging exports, but net FDI remains at the same level as in the baseline. The ten-year average of primary deficit is projected at 6.1 percent.

**12. Funding for the Pacific games is uncertain, we assume that USD 200 million in loans would be contracted to build infrastructure in the downside scenario.** Solomon Islands will host Pacific games in 2023 but the current infrastructure is inadequate. The authorities expect to finance the Games through external grants and grant financing is being obtained for a turnkey stadium. However, further additional major infrastructure and accommodation are required to support this major event and financing has not yet been secured for these investments. The authorities will seek grant financing for the infrastructure investment (and this is assumed in the baseline) but there is a risk that grant financing proves difficult to obtain. In the downside scenario, we assume that financing is provided as external loans and on non concessional terms.

[6] Please see the detail in Lee, D., H. Zhang, and C. Nguyen, 2018, "The Economic Impact of Natural Disasters in Pacific Island Countries: Adaptation and Preparedness", IMF Working Paper No. 18/108.

# DEBT SUSTAINABILITY

## A. External Debt Sustainability Analysis

**13. Under the baseline scenario, all external PPG debt indicators remain below the policy relevant thresholds for the next ten years (Figure 1).** The PV of debt-to-GDP ratio is expected to grow gradually from 4.7 percent in 2019 to 15.3 percent in 2029 due mainly to new disbursements for key infrastructure projects, including the TRHDP (Table 3). Then, it is expected to stabilize around 16.5 percent due to investment needs and large infrastructure gaps in Solomon Islands. As Figure 3 shows, the main driver of debt dynamics is a deterioration of the current account balance caused by external borrowing.

**14. The standardized stress test shows that an export shock has the largest negative impact on the external debt trajectory in both baseline and customized downside scenarios.**[7] The PV of debt-to-GDP ratio permanently breaches the threshold of 40 percent by 2021 in an extreme shock to exports (Table 3). This suggests the need to expand the economy's export base, as logging activity is expected to substantially decline in the medium term. The "other flows" shock also causes a large increase in the PV of debt-to-GDP ratio, suggesting that Solomon Islands is also vulnerable to changes in donor sentiment or outflows from private sector repatriation of dividends.[8] Other shocks, including to real GDP growth, the primary balance, and a one-time 30 percent depreciation, do not lead to a breach of any debt thresholds.

**15. The tailored natural disaster shock causes all the debt trajectories for each debt indicator to move upward in the aftermath of the shock.** The DSA includes a one-off shock that takes place in 2020, but there is a possibility that multiple severe natural disasters could occur within a ten-year timeframe. Staff's work shows that there is a probability of around 13.5 percent of a disaster each year of a magnitude of more that 3 percent of GDP or at least 5 percent of the population and this translates into one shock every seven years. Multiple natural disasters would evidently have a larger cumulative effect on debt sustainability through damaging long-term growth and increasing borrowing for reconstruction needs.

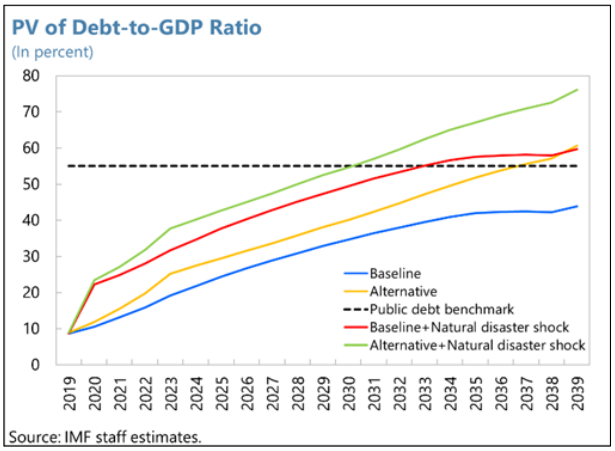
**16. Under the customized downside growth scenario, the export shock also causes a breach of the external debt thresholds (Figure 6).** The PV of debt-to-GDP ratio is expected to grow rapidly from 4.8 percent in 2019 to 22.7 percent in 2029 as new loans would be contracted to build infrastructure for the Pacific games. An export shock would cause a prolonged breach of the thresholds of both the PV of external debt-to-GDP ratio and debt-to-exports ratio from 2021 onwards.

[7] Nominal export growth (in USD) set to its historical average minus one and a half standard deviation, or the baseline projection minus one and a half standard deviation, whichever is lower in the second and third years of the projection period.

[8] Current transfers-to-GDP and FDI-to-GDP ratios set to their historical average minus one standard deviation, or the baseline projection minus one standard deviation, whichever is lower in the second and third years of the projection period.

## B. Public Sector Debt Sustainability Analysis

**17. Public debt is currently low but rises over the medium term (Figure 2).**[9] While debt indicators remain below the indicative thresholds in staff's baseline, debt pressures significantly build up under the most extreme stress test. As Figure 3 indicates, the biggest contributor to debt creating flows is the primary deficit caused by continued expansionary fiscal policy on current spending plans. Over the long term, unless fiscal management improves substantially, the risk of an unsustainable debt ratio is high.




**18. The standardized sensitivity analysis shows that the largest shock that leads to the highest debt figures in 2029 is a shock to real GDP growth (Figure 2, Table 4).** The PV of the debt-to-GDP ratio would breach the threshold of 55 percent of GDP by 2025.

**19. The tailored natural disaster shock results in a sharper deterioration in debt sustainability.** The debt service-to-revenue ratio is expected to increase by 6 pps compared to the baseline one year after the shock and the PV of the public debt-to-GDP ratio would breach the authorities' threshold of 35 percent by 2025. This highlights the importance of rebuilding fiscal buffers against external shocks.

**20. A tailored stress test for the combined contingent liability shock also causes a deterioration in debt sustainability.** The trajectory of the PV of the public debt-to-GDP ratio moves upwards by 3-5 pps from the baseline. This suggests the need for the government to rebuild fiscal buffers to address the contingent liability shock.

**21. Under the customized downside growth scenario, public sector debt breaches are even more pronounced.** A customized downside growth scenario was constructed to assess the impact on debt sustainability of further delay in mining activity picking up, a sharper contraction of logging activities and only debt financing for the Pacific Games. In this context, debt sustainability pressures build up even more rapidly. The PV of debt-to-GDP ratio is expected to breach the indicative threshold by 2031 under the baseline (Figure 7). Since additional extreme stress tests highlight high vulnerabilities to real growth shock and natural disasters, finding new sources of growth in the medium term is much needed to ensure long-term debt sustainability.

[9] Real GDP growth (in USD) set to its historical average minus one and a half standard deviation, or the baseline projection minus one and a half standard deviation, whichever is lower in the second and third years of the projection period.

# RISK RATING AND VULNERABILITIES

**22. The 2019 debt sustainability analysis under the new LIC DSF suggests that Solomon Islands' risk of external debt distress is moderate.** The external risk of debt distress rating in the Solomon Islands has been maintained at moderate given the uncertainty surrounding growth prospects. Most external debt indicators remain below the relevant indicative thresholds under the baseline scenario that incorporates the average long-term effects of natural disasters on growth, the fiscal balance, and the current account balance. However, an export shock would result in a breach of the PV of external debt-to-GDP ratio. And under the customized downside scenario there are more pronounced breaches. Although debt service indicators are below their thresholds under the baseline scenarios, maximizing concessional loans would help keep the debt burden contained. The granularity in the risk rating suggests that currently there is substantial space to absorb shocks, which reflects the current low level of external debt (Figure 5). [10] This space is expected to narrow over the medium-term as new borrowing comes on-stream because of the large infrastructure gap. The cut in ties with Taiwan Province of China and establishment of a diplomatic relationship with China potentially could significantly increase the availability of grants and debt financing. Staff note that Solomon Islands suffers from weak public financial management which leads to sporadic fiscal liquidity problems and these problems are exacerbated in the face of natural disasters. Also, it would be difficult for Solomon Islands to scale up rapidly and reduce the infrastructure gap without hitting absorptive capacity constraints. Solomon Islands' risk of debt distress also reflects the structural characteristics of the economy—growth is severely constrained by the country's economic geography, its distance from market, its vulnerability to external price shocks, and its exposure to natural disasters. These factors inherently limit Solomon Islands' debt carrying capacity.

**23. The DSA suggests that overall risk of debt distress is moderate, reflecting the expansionary fiscal policy.** A shock to real GDP growth has the largest impact on public debt sustainability, leading the PV of debt-to-GDP ratio to be above 60 percent in 2026 under the baseline scenario. These results indicate the urgent need for fiscal adjustment and measures to boost potential growth in the long run. Both tailored stress tests for natural disaster shock and the combined contingent liability shock would deteriorate debt sustainability significantly. The customized downside growth scenario further indicates the heightened vulnerability. The authorities need to embark on fiscal consolidation measures to rebuild fiscal buffers and prioritize investment projects that build resilience to natural disasters and promote economic growth.

***Authorities' Views***

**24. The authorities broadly agreed with the debt sustainability assessment.** They would seek to contain the debt sustainability risks arising from potential borrowing for the Pacific Games. They felt the staff's downside scenario was overly pessimistic since it assumed that the PG financing would be wholly loan financed. The authorities are hopeful that majority of the infrastructure projects related to PG will be grant-financed and would not contribute to debt pressure build up over the medium term.

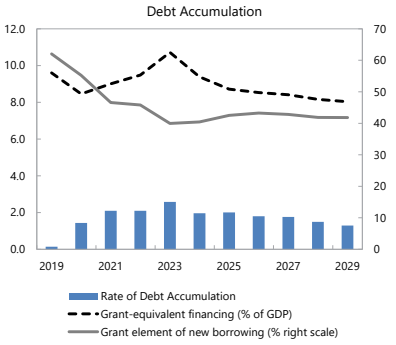
[10] The space is measured by the distance between the baseline debt burden indicators and their thresholds.

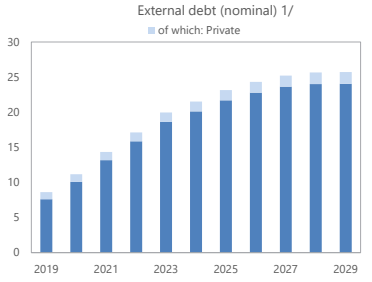
# Table 1. Solomon Islands: External Debt Sustainability Framework, Baseline Scenario, 2016–39

(In percent of GDP, unless otherwise indicated)

| | Actual | | | Projections | | | | | | | | Average 8/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2029 | 2039 | Historical | Projections |
| **External debt (nominal) 1/** | **8.3** | **8.5** | **8.1** | **8.6** | **11.2** | **14.3** | **17.1** | **20.0** | **21.5** | **25.7** | **25.8** | **17.5** | **19.7** |
| ***of which: public and publicly guaranteed (PPG)*** | **7.5** | **7.6** | **7.1** | **7.6** | **10.1** | **13.2** | **15.9** | **18.6** | **20.1** | **24.0** | **23.9** | **12.2** | **17.8** |
| Change in external debt | -2.3 | 0.2 | -0.4 | 0.6 | 2.5 | 3.2 | 2.8 | 2.8 | 1.6 | 0.1 | 0.6 | | |
| **Identified net debt-creating flows** | **0.4** | **0.7** | **0.8** | **5.0** | **4.3** | **6.5** | **8.8** | **10.5** | **7.9** | **6.1** | **5.0** | **0.2** | **6.4** |
| **Non-interest current account deficit** | **3.8** | **4.8** | **4.4** | **8.5** | **8.1** | **10.5** | **12.9** | **14.6** | **12.0** | **10.0** | **8.9** | **8.1** | **10.3** |
| Deficit in balance of goods and services | -95.8 | -99.3 | -102.8 | -110.6 | -108.0 | -106.3 | -104.9 | -103.9 | -106.0 | -83.1 | -68.2 | **-108.2** | **-101.7** |
| Exports | 45.0 | 46.5 | 48.9 | 49.8 | 48.6 | 46.2 | 44.1 | 42.6 | 45.0 | 33.9 | 26.2 | | |
| Imports | -50.8 | -52.8 | -53.9 | -60.8 | -59.4 | -60.1 | -60.8 | -61.3 | -61.0 | -49.2 | -41.9 | | |
| Net current transfers (negative = inflow) | -5.2 | -4.1 | -2.7 | -4.4 | -4.7 | -5.0 | -5.3 | -5.5 | -5.7 | -6.4 | -6.9 | **-11.4** | **-5.5** |
| *of which: official* | -7.1 | -5.8 | -4.2 | -2.6 | -2.5 | -2.5 | -2.5 | -2.5 | -2.5 | -2.4 | -2.3 | | |
| Other current account flows (negative = net inflow) | 104.9 | 108.2 | 109.9 | 123.5 | 120.8 | 121.8 | 123.1 | 124.0 | 123.7 | 99.5 | 84.0 | **127.7** | **117.6** |
| **Net FDI (negative = inflow)** | **-2.9** | **-3.9** | **-3.1** | **-3.4** | **-3.6** | **-3.9** | **-3.9** | **-3.8** | **-3.8** | **-3.4** | **-3.6** | **-6.5** | **-3.6** |
| **Endogenous debt dynamics 2/** | **-0.5** | **-0.2** | **-0.5** | **-0.1** | **-0.2** | **-0.2** | **-0.2** | **-0.3** | **-0.3** | **-0.4** | **-0.4** | | |
| Contribution from nominal interest rate | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | | |
| Contribution from real GDP growth | -0.3 | -0.3 | -0.3 | -0.2 | -0.2 | -0.3 | -0.4 | -0.5 | -0.5 | -0.8 | -0.7 | | |
| Contribution from price and exchange rate changes | -0.3 | -0.1 | -0.3 | ... | ... | ... | ... | ... | ... | ... | ... | | |
| **Residual 3/** | **-2.7** | **-0.4** | **-1.2** | **-4.4** | **-1.7** | **-3.3** | **-6.0** | **-7.7** | **-6.3** | **-6.1** | **-4.4** | **-2.7** | **-4.7** |
| *of which: exceptional financing* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| **Sustainability indicators** | | | | | | | | | | | | | |
| **PV of PPG external debt-to-GDP ratio** | **...** | **...** | **4.6** | **4.7** | **5.8** | **7.5** | **9.0** | **10.9** | **12.0** | **15.3** | **16.5** | | |
| **PV of PPG external debt-to-exports ratio** | **...** | **...** | **9.5** | **9.4** | **11.9** | **16.2** | **20.4** | **25.5** | **26.6** | **45.0** | **63.0** | | |
| **PPG debt service-to-exports ratio** | **1.8** | **1.7** | **1.1** | **1.1** | **0.6** | **0.9** | **1.0** | **1.0** | **1.0** | **2.2** | **3.9** | | |
| **PPG debt service-to-revenue ratio** | **2.6** | **2.4** | **1.6** | **1.9** | **1.0** | **1.4** | **1.4** | **1.4** | **1.5** | **2.6** | **4.0** | | |
| Gross external financing need (Million of U.S. dollars) | 30.9 | 22.4 | 26.8 | 81.0 | 72.6 | 112.4 | 158.5 | 201.2 | 166.4 | 199.2 | 355.1 | | |
| **Key macroeconomic assumptions** | | | | | | | | | | | | | |
| Real GDP growth (in percent) | 3.2 | 3.7 | 3.9 | 2.7 | 2.5 | 2.7 | 2.8 | 2.8 | 2.9 | 3.3 | 3.2 | **3.8** | **2.8** |
| GDP deflator in US dollar terms (change in percent) | 3.1 | 0.6 | 3.9 | -0.3 | 2.4 | 3.0 | 3.4 | 3.7 | 4.0 | 3.9 | 4.7 | **4.8** | **3.2** |
| Effective interest rate (percent) 4/ | 1.3 | 1.5 | 1.2 | 1.5 | -0.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.7 | **2.1** | **1.2** |
| Growth of exports of G&S (US dollar terms, in percent) | 5.3 | 7.8 | 13.5 | 4.3 | 2.4 | 0.6 | 1.5 | 2.9 | 13.1 | -0.5 | 8.5 | **11.9** | **3.1** |
| Growth of imports of G&S (US dollar terms, in percent) | 1.0 | 8.5 | 10.0 | 15.5 | 2.6 | 7.1 | 7.5 | 7.5 | 6.4 | 2.3 | 9.6 | **8.0** | **5.7** |
| Grant element of new public sector borrowing (in percent) | ... | ... | ... | 62.0 | 55.2 | 46.6 | 45.8 | 40.0 | 40.4 | 41.8 | 33.0 | **...** | **46.1** |
| Government revenues (excluding grants, in percent of GDP) | 31.8 | 32.8 | 34.3 | 30.1 | 29.8 | 29.6 | 29.5 | 29.2 | 29.1 | 28.1 | 25.7 | **32.6** | **29.2** |
| Aid flows (in Million of US dollars) 5/ | 230.3 | 231.9 | 249.7 | 127.9 | 132.3 | 141.8 | 159.9 | 192.8 | 180.8 | 222.1 | 397.3 | | |
| Grant-equivalent financing (in percent of GDP) 6/ | ... | ... | ... | 9.6 | 8.5 | 9.0 | 9.5 | 10.7 | 9.4 | 8.0 | 7.6 | **...** | **9.0** |
| Grant-equivalent financing (in percent of external financing) 6/ | ... | ... | ... | 95.3 | 85.6 | 80.9 | 82.2 | 81.6 | 84.1 | 86.6 | 78.7 | **...** | **84.8** |
| Nominal GDP (Million of US dollars) | 1,233 | 1,287 | 1,388 | 1,421 | 1,492 | 1,579 | 1,678 | 1,789 | 1,913 | 2,689 | 5,497 | | |
| Nominal dollar GDP growth | 6.4 | 4.4 | 7.9 | 2.4 | 5.0 | 5.8 | 6.3 | 6.6 | 7.0 | 7.3 | 8.1 | **9.1** | **6.1** |
| **Memorandum items:** | | | | | | | | | | | | | |
| PV of external debt 7/ | ... | ... | 5.5 | 5.7 | 6.9 | 8.6 | 10.3 | 12.2 | 13.4 | 16.9 | 18.5 | | |
| In percent of exports | ... | ... | 11.3 | 11.4 | 14.2 | 18.7 | 23.3 | 28.6 | 29.8 | 50.0 | 70.4 | | |
| Total external debt service-to-exports ratio | 3.6 | 1.9 | 1.3 | 1.3 | 0.8 | 1.0 | 1.1 | 1.1 | 1.1 | 2.4 | 4.3 | | |
| PV of PPG external debt (in Million of US dollars) | | | 64.3 | 66.2 | 86.5 | 117.8 | 150.9 | 194.2 | 229.3 | 410.1 | 908.4 | | |
| (PVt-PVt-1)/GDPt-1 (in percent) | | | | 0.1 | 1.4 | 2.1 | 2.1 | 2.6 | 2.0 | 1.3 | 1.9 | | |
| Non-interest current account deficit that stabilizes debt ratio | 6.2 | 4.5 | 4.8 | 7.9 | 5.5 | 7.4 | 10.1 | 11.7 | 10.4 | 9.9 | 8.3 | | |

| Definition of external/domestic debt | Residency-based |
|---|---|
| Is there a material difference between the two criteria? | No |




Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g) + Εα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ε=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Current-year interest payments divided by previous period debt stock.

5/ Defined as grants, concessional loans, and debt relief.

6/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

7/ Assumes that PV of private sector debt is equivalent to its face value.

8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

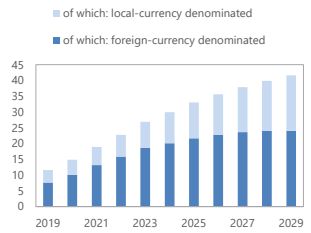
# Table 2. Solomon Islands: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016-39

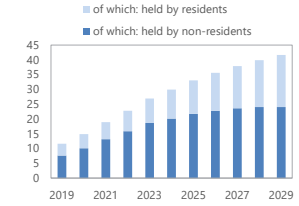
(In percent of GDP, unless otherwise indicated)

| | Actual | | | Projections | | | | | | | | Average 6/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2029 | 2039 | Historical | Projections |
| **Public sector debt 1/** | **7.9** | **9.5** | **9.4** | **11.6** | **14.9** | **18.9** | **22.8** | **26.9** | **29.9** | **41.6** | **51.3** | **16.4** | **28.5** |
| **of which: external debt** | **7.5** | **7.6** | **7.1** | **7.6** | **10.1** | **13.2** | **15.9** | **18.6** | **20.1** | **24.0** | **23.9** | **12.2** | **18.3** |
| Change in public sector debt | -2.2 | 1.6 | -0.1 | 2.3 | 3.2 | 4.1 | 3.9 | 4.1 | 3.0 | 1.8 | 1.7 | | |
| **Identified debt-creating flows** | **3.4** | **3.7** | **-1.2** | **2.3** | **3.2** | **4.2** | **4.1** | **4.4** | **3.4** | **2.3** | **2.4** | **-3.8** | **3.3** |
| **Primary deficit** | **3.8** | **4.3** | **-0.9** | **2.5** | **3.6** | **4.5** | **4.5** | **5.0** | **4.1** | **3.3** | **3.5** | **-2.2** | **3.9** |
| Revenue and grants | 43.2 | 43.1 | 45.3 | 39.0 | 36.5 | 36.7 | 37.2 | 38.3 | 37.3 | 35.3 | 32.3 | **50.6** | **36.7** |
| *of which: grants* | 11.4 | 10.2 | 11.0 | 8.8 | 6.7 | 7.2 | 7.7 | 9.1 | 8.2 | 7.1 | 6.6 | | |
| Primary (noninterest) expenditure | 47.0 | 47.4 | 44.4 | 41.5 | 40.1 | 41.2 | 41.7 | 43.4 | 41.4 | 38.6 | 35.8 | **48.4** | **40.6** |
| **Automatic debt dynamics** | **-0.4** | **-0.6** | **-0.3** | **-0.2** | **-0.3** | **-0.3** | **-0.5** | **-0.6** | **-0.7** | **-1.0** | **-1.1** | | |
| Contribution from interest rate/growth differential | -0.4 | -0.3 | -0.4 | -0.2 | -0.3 | -0.3 | -0.5 | -0.6 | -0.7 | -1.0 | -1.1 | | |
| *of which: contribution from average real interest rate* | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | | |
| *of which: contribution from real GDP growth* | -0.3 | -0.3 | -0.4 | -0.2 | -0.3 | -0.4 | -0.5 | -0.6 | -0.8 | -1.3 | -1.5 | | |
| Contribution from real exchange rate depreciation | 0.0 | -0.3 | 0.1 | ... | ... | ... | ... | ... | ... | ... | ... | | |
| **Other identified debt-creating flows** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **-0.1** | **0.0** |
| Privatization receipts (negative) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Recognition of contingent liabilities (e.g., bank recapitalization) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Debt relief (HIPC and other) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Other debt creating or reducing flow (please specify) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| **Residual** | **-5.7** | **-2.2** | **1.1** | **0.0** | **0.0** | **-0.1** | **-0.2** | **-0.3** | **-0.4** | **-0.6** | **-0.7** | **1.2** | **-0.3** |
| **Sustainability indicators** | | | | | | | | | | | | | |
| **PV of public debt-to-GDP ratio 2/** | **...** | **...** | **6.9** | **8.7** | **10.6** | **13.2** | **15.9** | **19.2** | **21.8** | **32.9** | **43.9** | | |
| **PV of public debt-to-revenue and grants ratio** | **...** | **...** | **15.3** | **22.2** | **29.0** | **35.9** | **42.8** | **49.9** | **58.5** | **93.1** | **136.0** | | |
| **Debt service-to-revenue and grants ratio 3/** | **3.0** | **2.9** | **2.3** | **3.2** | **2.7** | **3.2** | **3.5** | **3.7** | **4.2** | **5.7** | **8.6** | | |
| Gross financing need 4/ | 5.0 | 5.4 | 0.1 | 3.7 | 4.6 | 5.7 | 5.8 | 6.4 | 5.7 | 5.3 | 6.3 | | |
| **Key macroeconomic and fiscal assumptions** | | | | | | | | | | | | | |
| Real GDP growth (in percent) | 3.2 | 3.7 | 3.9 | 2.7 | 2.5 | 2.7 | 2.8 | 2.8 | 2.9 | 3.3 | 3.2 | **3.8** | **2.9** |
| Average nominal interest rate on external debt (in percent) | 1.0 | 1.2 | 0.8 | 1.0 | -1.0 | 0.8 | 0.9 | 0.9 | 1.0 | 1.2 | 1.4 | **1.1** | **0.9** |
| Average real interest rate on domestic debt (in percent) | -0.7 | -0.3 | -0.8 | -0.5 | -2.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.2 | **-0.3** | **-0.7** |
| Real exchange rate depreciation (in percent, + indicates depreciation) | -0.3 | -4.4 | 1.5 | ... | ... | ... | ... | ... | ... | ... | ... | **-3.0** | **...** |
| Inflation rate (GDP deflator, in percent) | 3.7 | 1.9 | 3.5 | 1.4 | 2.4 | 3.0 | 3.4 | 3.7 | 4.0 | 3.9 | 4.7 | **5.1** | **3.4** |
| Growth of real primary spending (deflated by GDP deflator, in percent) | 2.2 | 4.5 | -2.8 | -4.1 | -0.9 | 5.7 | 4.0 | 6.8 | -1.8 | 2.3 | 2.8 | **3.7** | **1.6** |
| Primary deficit that stabilizes the debt-to-GDP ratio 5/ | 6.1 | 2.8 | -0.8 | 0.2 | 0.3 | 0.4 | 0.7 | 0.9 | 1.1 | 1.5 | 1.8 | **2.7** | **1.0** |
| PV of contingent liabilities (not included in public sector debt) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

| | |
|---|---|
| **Definition of external/domestic debt** | **Residency-based** |
| **Is there a material difference between the two criteria?** | **No** |

Public sector debt 1/




Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government, central bank, government-guaranteed debt. Definition of external debt is Residency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

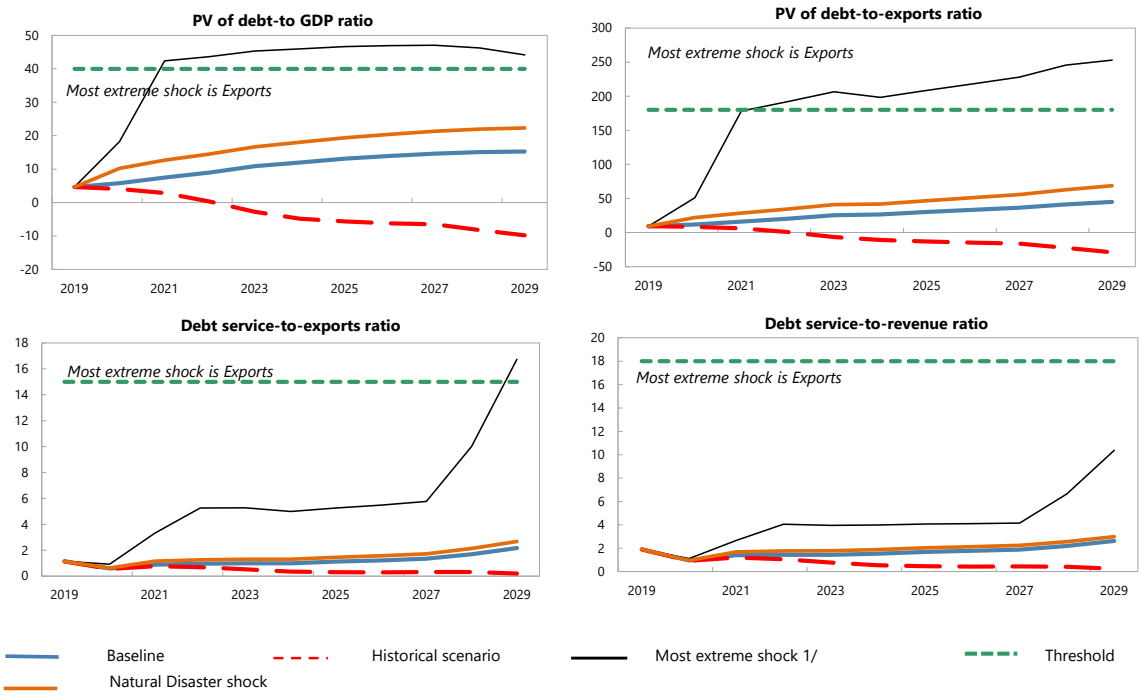
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

## Figure 1. Solomon Islands: Indicators of Public and Publicly Guaranteed External Debt Under Baseline Scenario, 2019–29 1/




| Customization of Default Settings | | |
|---|---|---|
| | Size | Interactions |
| **Standardized Tests** | Yes | |
| **Tailored Tests** | | |
| Combined CLs | Yes | |
| Natural Disasters | Yes | Yes |
| Commodity Prices 2/ | n.a. | n.a. |
| Market Financing | n.a. | n.a. |

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

| Borrowing Assumptions for Stress Tests* | | |
|---|---|---|
| | Default | User defined |
| **Shares of marginal debt** | | |
| External PPG MLT debt | 100% | |
| **Terms of marginal debt** | | |
| Avg. nominal interest rate on new borrowing in USD | 1.2% | 1.2% |
| USD Discount rate | 5.0% | 5.0% |
| Avg. maturity (incl. grace period) | 29 | 29 |
| Avg. grace period | 7 | 7 |

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

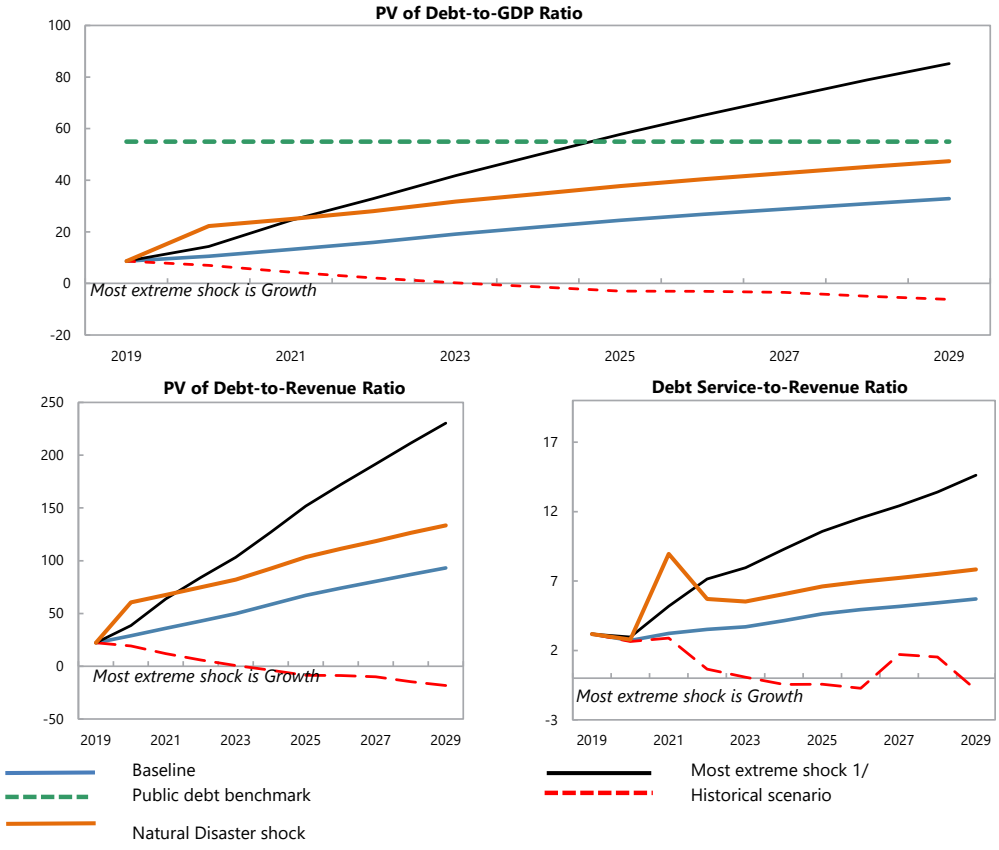
Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

## Figure 2. Solomon Islands: Indicators of Public Debt Under Alternative Scenarios, 2019–29 1/

### Figure 2. Solomon Islands: Indicators of Public Debt Under Alternative Scenarios, 2019-2029




| Borrowing Assumptions for Stress Tests* | Default | User defined |
|---|---|---|
| **Shares of marginal debt** | | |
| **External PPG medium and long-term** | 52% | 52% |
| **Domestic medium and long-term** | 36% | 36% |
| **Domestic short-term** | 9% | 12% |
| **Terms of marginal debt** | | |
| **External MLT debt** | | |
| **Avg. nominal interest rate on new borrowing in USD** | 1.2% | 1.2% |
| **Avg. maturity (incl. grace period)** | 29 | 29 |
| **Avg. grace period** | 7 | 7 |
| **Domestic MLT debt** | | |
| **Avg. real interest rate on new borrowing** | 3.1% | 3.1% |
| **Avg. maturity (incl. grace period)** | 15 | 15 |
| **Avg. grace period** | 14 | 14 |
| **Domestic short-term debt** | | |
| **Avg. real interest rate** | -2% | -2% |

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

## Table 3. Solomon Islands: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2019–29

(In percent)

| | Projections 1/ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| **PV of debt-to GDP ratio** | | | | | | | | | | | |
| **Baseline** | 4.7 | 5.8 | 7.5 | 9.0 | 10.9 | 12.0 | 13.1 | 13.9 | 14.6 | 15.1 | 15.3 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 4.7 | 4.1 | 2.8 | 0.3 | -2.7 | -4.9 | -5.6 | -6.2 | -6.5 | -8.2 | -9.8 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 4.7 | 6.5 | 9.2 | 11.1 | 13.4 | 14.8 | 16.2 | 17.2 | 18.1 | 18.6 | 18.9 |
| B2. Primary balance | 4.7 | 7.0 | 10.0 | 11.7 | 13.6 | 14.7 | 15.8 | 16.7 | 17.3 | 17.7 | 17.8 |
| B3. Exports | 4.7 | 18.2 | **42.4** | **43.7** | **45.3** | **45.9** | **46.6** | **46.9** | **47.0** | **46.3** | **44.2** |
| B4. Other flows 3/ | 4.7 | 14.1 | 23.9 | 25.1 | 26.6 | 27.3 | 28.0 | 28.5 | 28.8 | 28.4 | 27.5 |
| B6. One-time 30 percent nominal depreciation | 4.7 | 7.3 | 23.2 | 24.9 | 26.9 | 28.0 | 29.1 | 29.8 | 30.3 | 30.6 | 29.8 |
| B6. Combination of B1-B5 | 4.7 | 17.3 | 37.2 | 38.5 | **40.1** | **40.8** | **41.5** | **41.8** | **42.0** | **41.4** | 39.6 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 4.7 | 7.6 | 9.5 | 11.0 | 12.9 | 14.0 | 15.1 | 15.9 | 16.6 | 17.0 | 17.2 |
| C2. Natural disaster | 4.7 | 10.2 | 12.6 | 14.5 | 16.7 | 18.0 | 19.4 | 20.4 | 21.3 | 22.0 | 22.3 |
| C3. Commodity price | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** |
| C4. Market Financing | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** | **n.a.** |
| **Threshold** | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| **PV of debt-to-exports ratio** | | | | | | | | | | | |
| **Baseline** | 9.4 | 11.9 | 16.2 | 20.4 | 25.5 | 26.6 | 30.2 | 33.3 | 36.5 | 41.2 | 45.0 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 9.4 | 8.3 | 6.2 | 0.7 | -6.4 | -10.8 | -12.9 | -14.8 | -16.3 | -22.5 | -28.9 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 9.4 | 11.9 | 16.2 | 20.4 | 25.5 | 26.6 | 30.2 | 33.3 | 36.5 | 41.2 | 45.0 |
| B2. Primary balance | 9.4 | 14.4 | 21.7 | 26.6 | 31.9 | 32.7 | 36.5 | 39.8 | 43.3 | 48.5 | 52.5 |
| B3. Exports | 9.4 | 51.1 | 178.2 | **192.3** | **206.7** | **198.3** | **208.7** | **218.2** | **228.0** | **245.8** | **253.2** |
| B4. Other flows 3/ | 9.4 | 29.0 | 51.7 | 56.8 | 62.4 | 60.6 | 64.5 | 68.1 | 71.8 | 77.8 | 81.0 |
| B6. One-time 30 percent nominal depreciation | 9.4 | 11.9 | 40.0 | 44.8 | 50.2 | 49.4 | 53.2 | 56.6 | 60.2 | 66.5 | 69.9 |
| B6. Combination of B1-B5 | 9.4 | 37.7 | 66.2 | 107.7 | 116.2 | 111.8 | 117.9 | 123.5 | 129.3 | 139.6 | 144.2 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 9.4 | 15.7 | 20.5 | 25.0 | 30.3 | 31.1 | 34.8 | 38.1 | 41.5 | 46.6 | 50.7 |
| C2. Natural disaster | 9.4 | 22.1 | 28.7 | 34.5 | 41.0 | 41.9 | 46.7 | 51.2 | 55.7 | 62.9 | 68.9 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Threshold** | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| **Debt service-to-exports ratio** | | | | | | | | | | | |
| **Baseline** | 1.1 | 0.6 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.7 | 2.2 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 1.1 | 0.6 | 0.8 | 0.7 | 0.5 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 1.1 | 0.6 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.7 | 2.2 |
| B2. Primary balance | 1.1 | 0.6 | 0.9 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | 1.5 | 2.0 | 2.7 |
| B3. Exports | 1.1 | 0.9 | 3.3 | 5.3 | 5.3 | 5.0 | 5.3 | 5.5 | 5.8 | 10.0 | **16.7** |
| B4. Other flows 3/ | 1.1 | 0.6 | 1.3 | 1.7 | 1.7 | 1.6 | 1.8 | 1.8 | 2.0 | 3.4 | 5.1 |
| B6. One-time 30 percent nominal depreciation | 1.1 | 0.6 | 0.9 | 1.5 | 1.5 | 1.4 | 1.6 | 1.6 | 1.8 | 2.1 | 4.2 |
| B6. Combination of B1-B5 | 1.1 | 0.7 | 1.9 | 3.0 | 3.0 | 2.9 | 3.0 | 3.2 | 3.3 | 5.7 | 9.4 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 1.1 | 0.6 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 | 1.8 | 2.3 |
| C2. Natural disaster | 1.1 | 0.6 | 1.2 | 1.3 | 1.3 | 1.3 | 1.5 | 1.6 | 1.7 | 2.1 | 2.7 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Threshold** | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| **Debt service-to-revenue ratio** | | | | | | | | | | | |
| **Baseline** | 1.9 | 1.0 | 1.4 | 1.4 | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 | 2.2 | 2.6 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 1.9 | 0.9 | 1.2 | 1.1 | 0.8 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.2 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 1.9 | 1.1 | 1.7 | 1.8 | 1.8 | 1.9 | 2.1 | 2.2 | 2.3 | 2.7 | 3.2 |
| B2. Primary balance | 1.9 | 1.0 | 1.5 | 1.6 | 1.6 | 1.7 | 1.9 | 1.9 | 2.1 | 2.6 | 3.2 |
| B3. Exports | 1.9 | 1.1 | 2.7 | 4.1 | 4.0 | 4.0 | 4.1 | 4.1 | 4.2 | 6.6 | 10.4 |
| B4. Other flows 3/ | 1.9 | 1.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.6 | 2.7 | 2.7 | 4.4 | 6.1 |
| B6. One-time 30 percent nominal depreciation | 1.9 | 1.2 | 1.8 | 2.8 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.5 | 6.3 |
| B6. Combination of B1-B5 | 1.9 | 1.1 | 2.5 | 3.6 | 3.6 | 3.6 | 3.7 | 3.7 | 3.8 | 6.0 | 9.2 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 1.9 | 1.0 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 2.3 | 2.7 |
| C2. Natural disaster | 1.9 | 1.0 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 | 2.1 | 2.3 | 2.6 | 3.0 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Threshold** | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

## Table 4. Solomon Islands: Sensitivity Analysis for Key Indicators of Public Debt 2019–29

(In percent)

| | Projections 1/ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| **PV of Debt-to-GDP Ratio** | | | | | | | | | | | |
| **Baseline** | 8.7 | 10.6 | 13.2 | 15.9 | 19.2 | 21.8 | 24.4 | 26.7 | 28.9 | 30.9 | 32.9 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 8.7 | 7.0 | 4.4 | 2.2 | 0.3 | -1.4 | -3.0 | -3.0 | -3.4 | -4.9 | -6.2 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 8.7 | 14.3 | 24.5 | 32.9 | 41.8 | 49.8 | **57.8** | **65.1** | **72.1** | **78.8** | **85.2** |
| B2. Primary balance | 8.7 | 13.8 | 19.5 | 22.0 | 25.1 | 27.7 | 30.2 | 32.4 | 34.4 | 36.4 | 38.2 |
| B3. Exports | 8.7 | 20.5 | 38.6 | 40.8 | 43.4 | 45.4 | 47.5 | 49.2 | 50.7 | 51.7 | 51.9 |
| B4. Other flows 3/ | 8.7 | 18.8 | 29.6 | 32.0 | 34.8 | 37.1 | 39.3 | 41.3 | 43.0 | 44.3 | 45.1 |
| B6. One-time 30 percent nominal depreciation | 8.7 | 9.9 | 10.6 | 11.5 | 13.1 | 14.3 | 15.5 | 16.5 | 17.4 | 18.3 | 19.3 |
| B6. Combination of B1-B5 | 8.7 | 12.6 | 15.5 | 17.0 | 20.5 | 23.4 | 26.3 | 28.9 | 31.4 | 33.7 | 35.9 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 8.7 | 15.4 | 17.8 | 20.4 | 23.5 | 26.1 | 28.7 | 30.9 | 32.9 | 34.9 | 36.7 |
| C2. Natural disaster | 8.7 | 22.2 | 24.9 | 28.0 | 31.7 | 34.7 | 37.7 | 40.4 | 42.8 | 45.2 | 47.4 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Public debt benchmark** | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| **PV of Debt-to-Revenue Ratio** | | | | | | | | | | | |
| **Baseline** | 22.2 | 29.0 | 35.9 | 42.8 | 49.9 | 58.5 | 67.3 | 74.1 | 80.4 | 87.0 | 93.1 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 22.2 | 19.3 | 12.1 | 5.9 | 0.7 | -3.7 | -8.5 | -8.7 | -9.9 | -14.5 | -18.3 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 22.2 | 38.5 | 63.7 | 84.2 | 103.2 | 127.1 | 151.7 | 172.1 | 191.6 | 211.5 | 230.4 |
| B2. Primary balance | 22.2 | 37.7 | 52.9 | 59.0 | 65.5 | 74.2 | 83.2 | 89.8 | 95.9 | 102.3 | 108.2 |
| B3. Exports | 22.2 | 56.3 | 105.0 | 109.6 | 113.3 | 122.0 | 130.8 | 136.3 | 141.3 | 145.5 | 147.0 |
| B4. Other flows 3/ | 22.2 | 51.6 | 80.6 | 85.9 | 90.9 | 99.5 | 108.3 | 114.3 | 119.8 | 124.5 | 127.7 |
| B6. One-time 30 percent nominal depreciation | 22.2 | 27.5 | 29.4 | 31.5 | 34.7 | 39.0 | 43.3 | 46.3 | 49.1 | 52.4 | 55.5 |
| B6. Combination of B1-B5 | 22.2 | 34.5 | 41.9 | 45.3 | 53.1 | 62.5 | 72.2 | 79.8 | 87.0 | 94.3 | 101.1 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 22.2 | 42.1 | 48.3 | 54.8 | 61.4 | 70.1 | 78.9 | 85.5 | 91.7 | 98.1 | 104.1 |
| C2. Natural disaster | 22.2 | 60.6 | 67.5 | 75.0 | 82.2 | 92.7 | 103.4 | 111.3 | 118.7 | 126.4 | 133.5 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **Debt Service-to-Revenue Ratio** | | | | | | | | | | | |
| **Baseline** | 3.2 | 2.7 | 3.2 | 3.5 | 3.7 | 4.2 | 4.6 | 4.9 | 5.2 | 5.4 | 5.7 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2019-2029 2/ | 3.2 | 2.6 | 2.9 | 0.7 | 0.1 | -0.5 | -0.4 | -0.7 | 1.7 | 1.5 | -0.8 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 3.2 | 3.0 | 5.2 | 7.2 | 8.0 | 9.3 | 10.6 | 11.5 | 12.4 | 13.4 | 14.6 |
| B2. Primary balance | 3.2 | 2.7 | 4.9 | 5.7 | 4.7 | 5.0 | 5.5 | 5.8 | 6.0 | 6.4 | 6.8 |
| B3. Exports | 3.2 | 2.7 | 3.8 | 4.9 | 4.9 | 5.4 | 5.8 | 6.1 | 6.2 | 7.8 | 10.0 |
| B4. Other flows 3/ | 3.2 | 2.7 | 3.7 | 4.4 | 4.5 | 4.9 | 5.4 | 5.7 | 5.9 | 7.2 | 8.5 |
| B6. One-time 30 percent nominal depreciation | 3.2 | 2.7 | 3.4 | 3.6 | 3.6 | 4.0 | 4.4 | 4.7 | 4.8 | 4.8 | 4.9 |
| B6. Combination of B1-B5 | 3.2 | 2.7 | 3.3 | 3.6 | 3.9 | 4.5 | 5.1 | 5.4 | 5.7 | 6.0 | 6.4 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 3.2 | 2.7 | 5.6 | 4.3 | 4.3 | 4.7 | 5.2 | 5.5 | 5.7 | 6.0 | 6.2 |
| C2. Natural disaster | 3.2 | 2.8 | 9.0 | 5.7 | 5.5 | 6.1 | 6.6 | 7.0 | 7.2 | 7.5 | 7.8 |
| C3. Commodity price | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C4. Market Financing | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Sources: Country authorities; and staff estimates and projections.

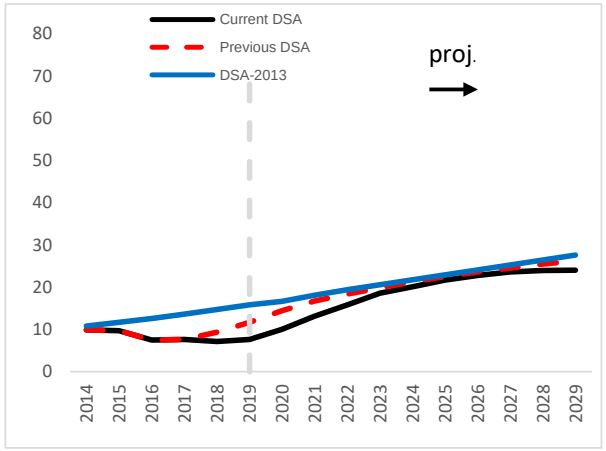
1/ A bold value indicates a breach of the threshold.

2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

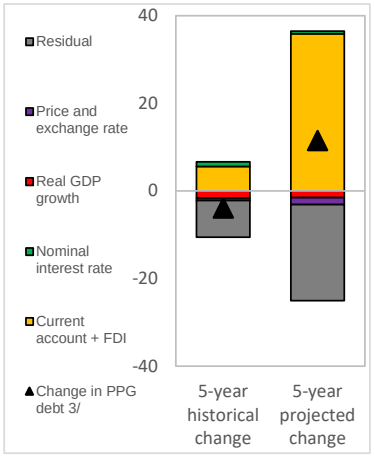
3/ Includes official and private transfers and FDI.

## Figure 3. Solomon Islands: Drivers of Debt Dynamics
## Baseline Scenario External Debt

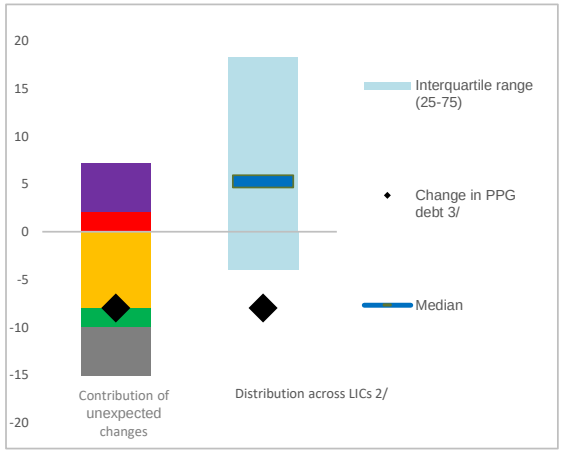
Gross Nominal PPG External Debt
(in percent of GDP; DSA vintages)




Debt-creating flows
(percent of GDP)

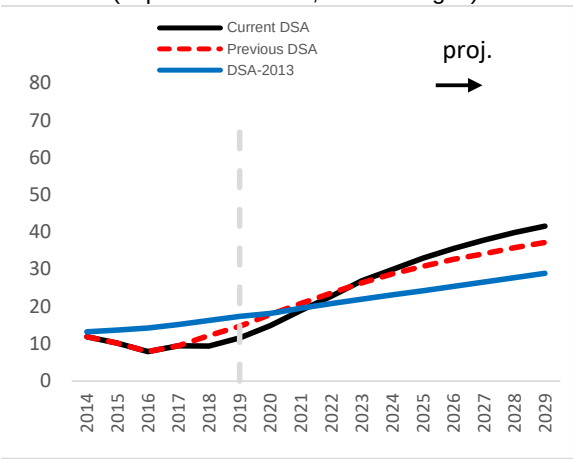



Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)

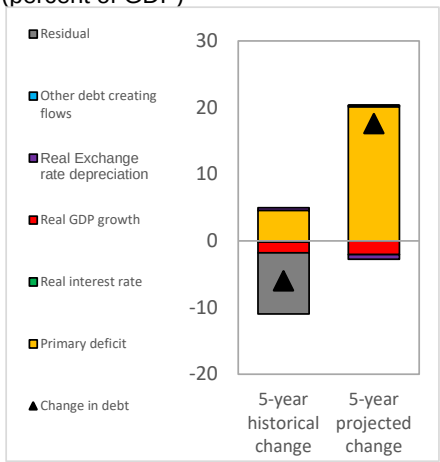



## Public Debt

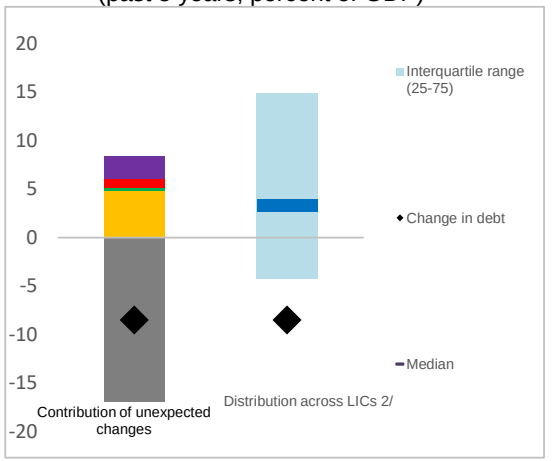
Gross Nominal Public Debt
(in percent of GDP; DSA vintages)




Debt-creating flows
(percent of GDP)




Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)



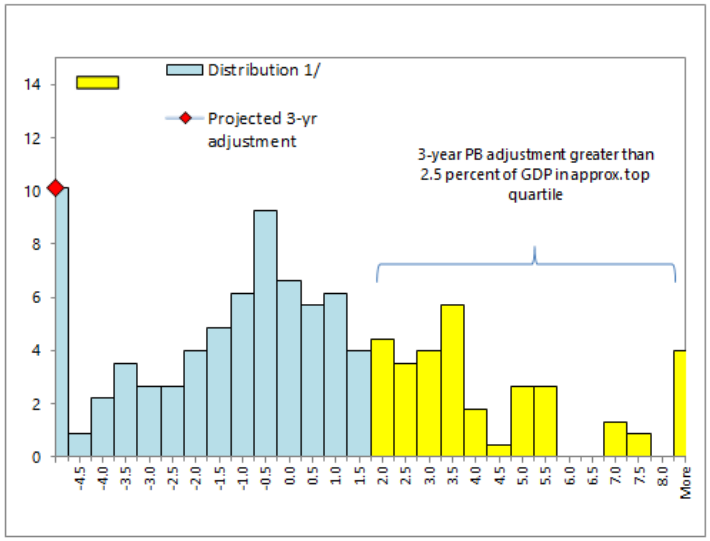

1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

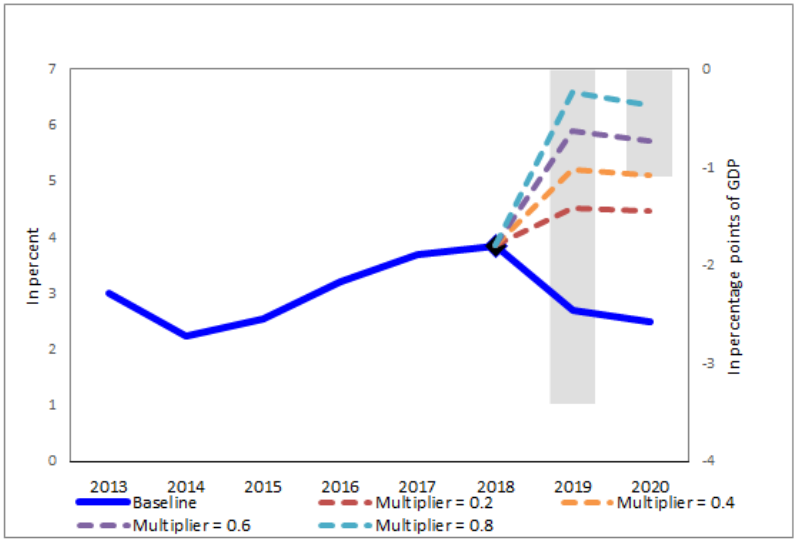
## Figure 4. Solomon Islands: Realism tools

**3-Year Adjustment in Primary Balance(Percentage points of GDP)**



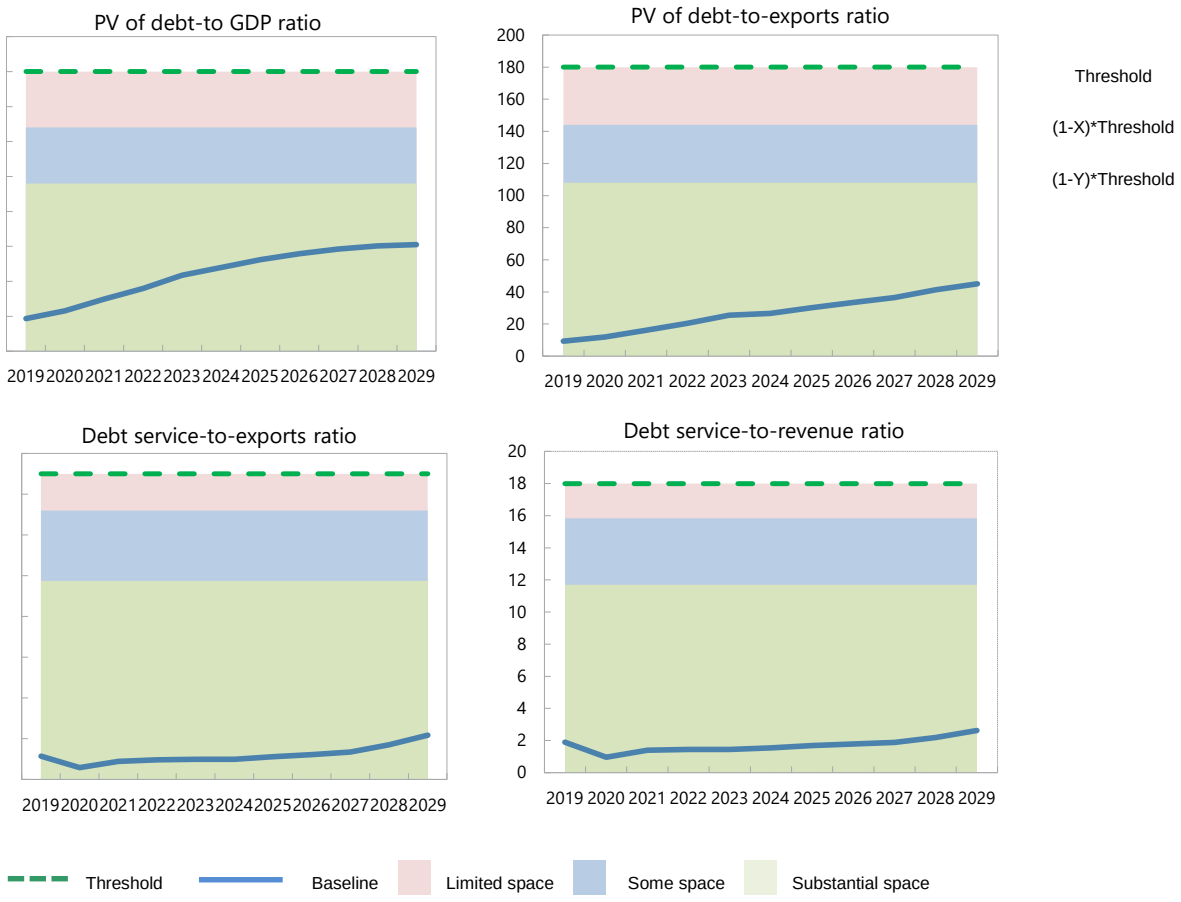

1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

**Fiscal Adjustment and Possible Growth Paths 1/**




1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

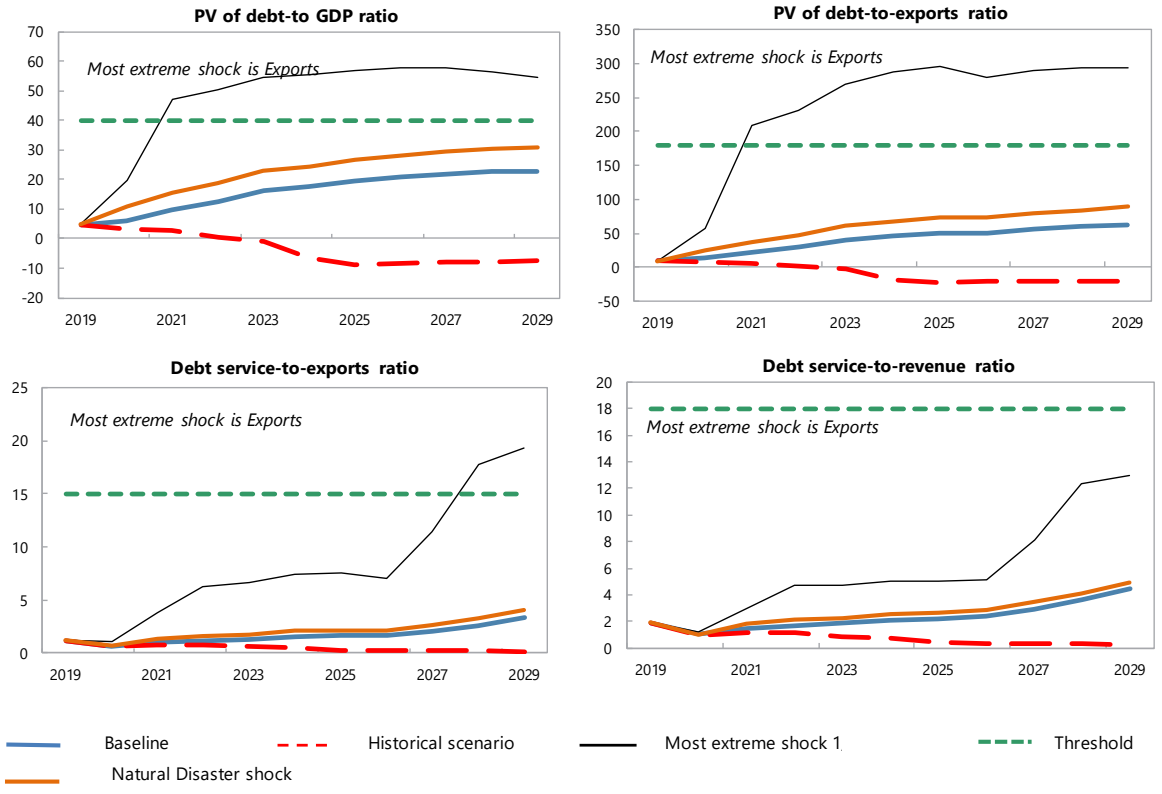
## Figure 5. Solomon Islands: Qualification of the Moderate Category, 2019–29 1/




Sources: Country authorities; and staff estimates and projections.

1/ For the PV debt/GDP and PV debt/exports thresholds, x is 20 percent and y is 40 percent. For debt service/Exports and debt service/revenue thresholds, x is 12 percent and y is 35 percent.

## Figure 6. Solomon Islands: Customized Downside Scenario: Indicators of External Debt Under Alternative Scenarios, 2019–29 1/




| Customization of Default Settings | Size | Interactions |
|---|---|---|
| **Standardized Tests** | Yes | |
| **Tailored Tests** | | |
| Combined CLs | Yes | |
| Natural Disasters | Yes | Yes |
| Commodity Prices 2/ | n.a. | n.a. |
| Market Financing | n.a. | n.a. |

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

| Borrowing Assumptions for Stress Tests* | Default | User defined |
|---|---|---|
| **Shares of marginal debt** | | |
| External PPG MLT debt | 100% | |
| **Terms of marginal debt** | | |
| Avg. nominal interest rate on new borrowing in USD | 1.3% | 1.3% |
| USD Discount rate | 5.0% | 5.0% |
| Avg. maturity (incl. grace period) | 29 | 29 |
| Avg. grace period | 7 | 6 |

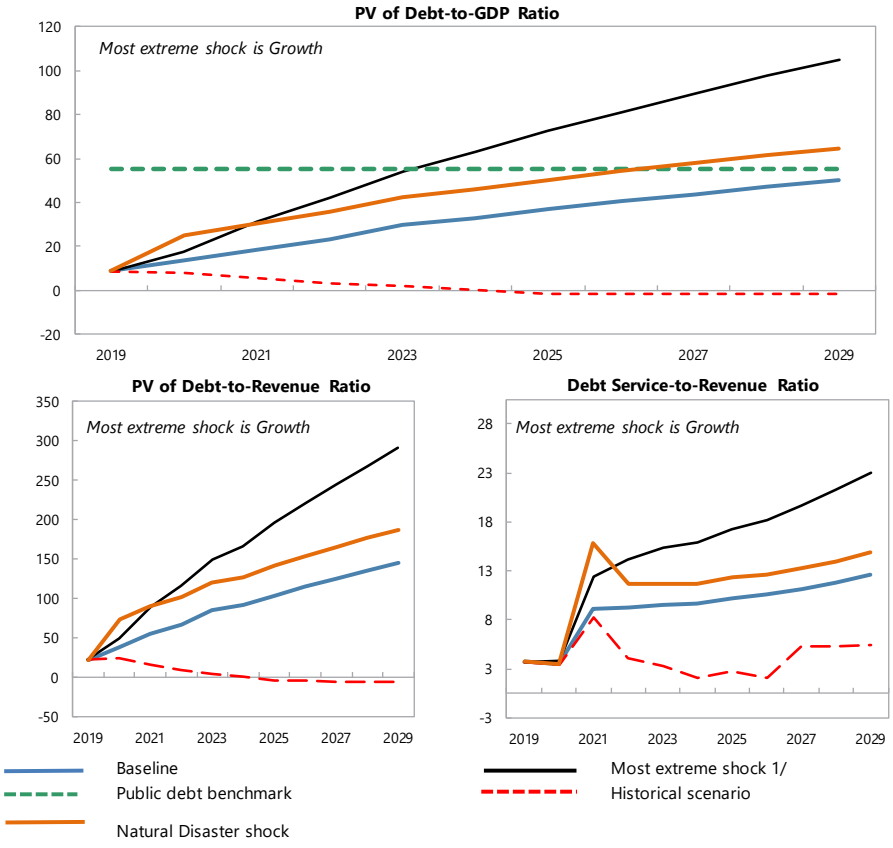
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

## Figure 7. Solomon Islands: Customized Downside Scenario: Indicators of Public Debt Under Alternative Scenarios, 2019–29 1/




| Borrowing Assumptions for Stress Tests* | Default | User defined |
|---|---|---|
| **Shares of marginal debt** | | |
| **External PPG medium and long-term** | 53% | 56% |
| **Domestic medium and long-term** | 38% | 31% |
| **Domestic short-term** | 23% | 13% |
| **Terms of marginal debt** | | |
| **External MLT debt** | | |
| **Avg. nominal interest rate on new borrowing in USD** | 1.3% | 1.4% |
| **Avg. maturity (incl. grace period)** | 29 | 30 |
| **Avg. grace period** | 7 | 6 |
| **Domestic MLT debt** | | |
| **Avg. real interest rate on new borrowing** | 3.1% | 3.1% |
| **Avg. maturity (incl. grace period)** | 15 | 15 |
| **Avg. grace period** | 14 | 14 |
| **Domestic short-term debt** | | |
| **Avg. real interest rate** | -2% | -2% |

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.