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FROM: Vice President and Corporate Secretary

**Solomon Islands
Joint Bank-Fund Debt Sustainability Analysis**

1. Attached for information is a paper entitled "Solomon Islands - Joint Bank/IMF Debt Sustainability Analysis".
2. This paper will be publicly disclosed by the Bank and the Fund after obtaining government consent.
3. Questions on this document may be referred to Mr. Stucka (ext. 38866).

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INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

SOLOMON ISLANDS

Joint Bank/Fund Debt Sustainability Analysis 2009¹

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Based on the joint World Bank-IMF low income country DSA (LIC DSA), the Solomon Islands remains classified as being at medium risk of debt distress.² Under the baseline, all debt indicators are below their policy-dependent indicative thresholds and are expected to remain so over the medium and long term. However, several stress tests result in a substantial increase in the debt burden and cause some indicators to rise significantly above their thresholds. Given past debt problems and uncertain growth prospects, the government of the Solomon Islands will need to proceed cautiously with new borrowing over the medium to long term. In particular, the potential dependence on mining as a main driver of growth highlights the need to improve the investment climate and business environment to raise productivity in other sectors and broaden the production base.

I. BACKGROUND

1. **At end-2008, total public debt was US\$200 million (including arrears and public credit guarantees), or equivalent to 32 percent of GDP.³** This level of debt encompasses

¹ This DSA was prepared jointly by the World Bank and IMF, in consultation with the Asian Development Bank (AsDB). The debt data underlying this exercise were provided by the Solomon Islands authorities.

² See “Debt Sustainability in Low-Income Countries: Proposal for an Operational Framework and Policy Implications” (<http://siteresources.worldbank.org/INTDEBTDEPT/PublicationsAndReports/20261908/debtSust-complete%20paper.pdf>) and (<http://www.imf.org/external/np/pdr/sustain/2004/020304.htm>, 2/3/04) and “Debt Sustainability in Low-Income Countries: Further Considerations on an Operational Framework, Policy Implications” (<http://siteresources.worldbank.org/INTDEBTDEPT/PolicyPapers/20279458/DSfullpapersept.pdf>) and (<http://www.imf.org/external/np/pdr/sustain/2004/091004.htm>, 9/10/04) and “Applying the Debt Sustainability Framework for Low-Income Countries Post Debt Relief,” (<http://siteresources.worldbank.org/INTDEBTDEPT/PolicyPapers/21154573/DMSDR1S3149398v1DSFPaperf orweb.pdf>) and (www.imf.org/external/np/pp/eng/2006/110606.pdf, 11/08/06).

³ Compared to the previous DSA, the debt-to-GDP ratios have fallen substantially as a result of changes in the methodology for compiling national accounts data. This has resulted in a large upward revision of the official series for nominal GDP.

the central government only, with debt data unavailable for state enterprises and provincial governments. Around two-thirds of total public debt is external debt. The vast majority of domestic public debt is owed to the banking sector (including the Central Bank of Solomon Islands), with the National Provident Fund also holding government bonds amounting to about one fifth of the total domestic public debt.⁴ The overall level of public debt has declined significantly in recent years (Table 1a and 2a). After a period of distress, the debt situation improved substantially in 2007 following a rescheduling agreement reached with major creditors under the Honiara Club Agreement (HCA).⁵ As a result, total public debt (as a share of GDP) declined from 57 percent in 2006 to 40 percent in 2007. Arrears to external creditors were settled and all external debt obligations are now being serviced regularly.

2. As of end-2008, total external debt amounted to US\$160 million, or 25 percent of GDP. Public external debt accounted for over 85 percent of total external debt, mainly stemming from multilateral agencies. Key creditors are the Asian Development Bank (AsDB) and the World Bank Group's IDA, with their shares of the total public external debt around 40 percent and 30 percent, respectively, at end-2008. Other external creditors include the European Commission, European Investment Bank, International Fund for Agriculture Development, and Organization of the Petroleum Exporting Countries.

II. MAIN ASSUMPTIONS

3. The baseline scenario encompasses current policies. The government is assumed to make moderate policy adjustments on both the macroeconomic and structural fronts (Box 1).⁶ However, the fiscal stance would continue to be constrained by a slow growth recovery, weak cash position, and limited borrowing capacity, necessitating a sizable compression in government spending over the next few years. Even with envisaged large expenditure cuts (as a share of GDP), the government's cash position would still remain extremely tight, requiring strict fiscal discipline and treasury management to ensure proper budget execution and avoid spending arrears. A key assumption is that gold and nickel mining exports will start in 2012 and 2015, respectively, boosting medium-term growth prospects and buttressing official foreign reserves.

⁴ The shares of the central bank and the private banking sector of the total debt are about 30 percent and 50 percent, respectively.

⁵ The Honiara Club is a multilateral forum convened by the government of the Solomon Islands in October 2005 to seek debt relief from a group of major official creditors (Australia, the European Commission, the European Investment Bank, and International Fund for Agriculture Development). The final agreement resulted in a moratorium on principal repayments and forgiveness of interest payments during the moratorium period. It also led to debt forgiveness from external creditors (equivalent to 1 percent of GDP).

⁶ The Solomon Islands is currently classified as a weak performer with regard to its policies and institutions, as measured by the World Bank's Country Policy and Institutional Assessment (CPIA) index.

Box 1. Main Assumptions in the Baseline Scenario

Real GDP growth is projected to average around 5 percent during 2010–14—higher than the historical average, which reflects negative growth experienced during the period of social and political unrest in the early 2000s. Notwithstanding expected low growth in 2009, recent growth projections through 2008 have been in line with outturns. Consistent with the official outlook, logging activity is projected to decline sharply over the medium term due to depleted timber reserves. Activities in other sectors will pick up, mostly in mining and agriculture. New, large gold and nickel mining operations are assumed to commence production in 2012 and 2015, respectively, in line with recent developments.¹ **Inflation** is expected to average 6½ percent a year during 2010–14, declining to about 5 percent in the longer term as international commodity prices stabilize.

The overall fiscal position is projected to run a small deficit, on average, during 2010–14. However, rather than reflecting major policy adjustment, this situation is due largely to a combination of falling revenue (as a share of GDP), a weak cash position, and limited capacity to borrow. Reflecting existing donor commitments, inclusive of some scaling back over time of assistance provided under the umbrella of the Regional Assistance Mission in Solomon Islands, external grants are expected to fall in real terms. As a result, recurrent spending will likely be compressed significantly from current levels in order to maintain a positive cash balance and avoid expenditure arrears. The direct impact of new mining-related revenues is assumed to be relatively low (below 1 percent of GDP), given no firm agreement on the tax regime in this area.

The current account deficit is expected to widen sharply over the medium term, due both to the rapid decline in logging exports and large projected mining-related imports, principally supported by foreign direct investment (FDI) in this sector. Before peaking at about 25 percent of GDP in 2016, the deficit would be expected to narrow temporarily in 2012 and 2013, when gold export receipts start to materialize. In the long run, with nickel mining providing a major boost to export earnings, the deficit would gradually fall and then stabilize at about 5 percent to GDP.

New borrowing and aid flows: Under the baseline scenario, the government is assumed to maintain its policy of no new borrowing for recurrent expenditure. However, starting in 2011 it is assumed to restart modest external borrowing for development expenditure, responding to needs to improve basic infrastructure and given the expected fall-off in external grants. Nonetheless, the authorities are expected to pursue a high grant element in their new external borrowing in keeping with the spirit of the Honiara Club Agreement (HCA). Under the HCA, the government is expected to refrain from new external borrowing and pursue grant financing and ODA until it achieves “green light status” under IDA’s debt distress ratings system. Aid inflows would still decline moderately over the medium term, while FDI from the mining sector (gold and nickel) expected to increase significantly. The reserve cover would fall over the near to medium term to the equivalent 1.2 months of prospective imports coverage in 2011. It would then reverse, but fall below the three-month threshold for most of the projection period again by 2028.

1/ Gold: Australian Solomons Gold Limited is leading a consortium (including the European Investment Bank and World Bank Group’s International Finance Corporation) in investing around US\$150 million to restart operations of the Gold Ridge mine. Currently, the mine has proven reserves of around 800,000 troy ounces of gold, and is assumed here to operate during 2012–18. Nickel: The Sumitomo Metal Mining Company is expected to invest around US\$2 billion in a large nickel mining operation. The mine is assumed here to produce from 2015 onwards, with annual production reaching around 30,000 tons (55 percent purity).

III. DEBT SUSTAINABILITY

A. External Debt Sustainability

Baseline

4. **Under the baseline, all external debt indicators remain below the indicative policy-dependent debt burden thresholds.** Despite modest new external borrowing assumed to start in 2011, all of the indicators would decline moderately over the medium term (Table 1a), led by steady repayment of existing debt. Over the long term, they would stabilize at about half of the current levels.

Alternative scenarios and stress tests

5. **Several thresholds are breached under the historical scenario and a few stress tests.**

- *The present value (PV) of debt-to-GDP ratio, debt-to-exports ratio, and debt-to-revenue ratio:* Under the historical scenario, the PVs of debt-to-GDP ratio and debt-to-exports ratio exceed the thresholds. Among the bound tests, two result in significant increases in debt burden indicators —the shock to net non-debt creating flows and the combined shock to growth, exports, deflators, and these flows, surpassing the policy-dependent thresholds over the near to medium term (Table 1b).⁷
- *Debt service-to-exports ratio and debt service-to-revenue ratio:* Under all scenarios and stress tests, these indicators would stay below the policy-dependent thresholds, supported by the relatively high concessionality of public external borrowing.

6. **Two country specific scenarios are also examined, based on different assumptions from the baseline.** They demonstrate the potential volatility of the Solomon Islands' external position and benefits that could accrue from pursuing a moderate path of adjustment over the near to medium term.

- *Higher-case scenario* (Table 3a): Under this scenario, the fiscal stance is underpinned by a more robust policy framework. Revenue growth would be higher than under the baseline. Expenditure levels (as a share of GDP) would also exceed those in the baseline, in part aided by additional donor budget support, which would backstop further reforms. The more stable fiscal position would allow the government to build

⁷ These results are highly sensitive to expected large FDI inflows in 2010 and 2011 associated with new mining and telecommunications operations.

cash reserves. Growth prospects would be expected to improve, in part due to higher development spending. Over time, this would be expected to facilitate greater external borrowing by both the government and the private sector. Based on these assumptions, external debt (total and public) would be expected rise above that in the baseline, mainly given the government's greater capacity to borrow.

- *Lower-case scenario* (Table 4a): The main assumptions under this scenario are that the start of new large gold mining production is delayed by two years to 2014 and that large nickel mining operations, expected to start in 2015, do not materialize, in part due to volatile commodity prices, land tenure issues, and financing constraints. Compared to the baseline scenario, lower GDP growth, smaller export earnings, and larger fiscal deficits that would be expected to arise in this case would not necessarily lead to larger external debt. This is because government's capacity to borrow abroad would be constrained by its weaker underlying fiscal position, necessitating greater recourse to domestic borrowing—potentially squeezing out the private sector and further dampening growth prospects. The reserve cover would rise initially with gold exports, but fall subsequently following the end of production. Assuming moderate nonmining export growth, it would only be at around 1.5 months of import coverage by 2029—well below the levels envisaged in the baseline and higher-case scenarios.

B. Public Sector Debt Sustainability

Baseline

7. Total public debt is expected to decline steadily over the medium and long term. The debt-to-GDP ratio is projected to almost halve to 17 percent of GDP in 2014 from 32 percent of GDP in 2008. However, some debt indicators would remain relatively high. In particular, the PV of public sector debt to revenue (excluding grants) would stay above 40 percent through 2014.

Alternative scenarios and stress tests

8. Debt dynamics are subject to substantial risks. The results of the alternative scenarios and stress tests indicate that lower GDP growth would significantly inflate debt indicators, such as the PVs of debt-to-GDP ratio and debt-to-revenue ratio, particularly in the longer term (Table 2b). The first bound test (a temporary but significant decline in GDP growth) corresponds to the most extreme shock, owing to the combined effects over time of relatively low expected growth in 2010 and 2011 and very large standard deviations in historical growth averages. This finding again points to the sensitivity of this DSA to growth conditions.

9. Public debt dynamics differ under the additional alternative scenarios. Despite higher external public borrowing for development expenditure, public debt is lower under the *higher case scenario* (Table 3b) than in the baseline scenario. This is due to a smaller need

for domestic financing under the former, as a result of stronger fiscal balances. On the other hand, the *lower-case scenario* (Table 4b) points to a substantially higher public debt burden due to both larger fiscal deficits and lower nominal GDP over the medium and long term.

IV. CONCLUSION

10. **The Solomon Islands face a moderate risk of debt distress.** Under the baseline, no thresholds are breached. However, several thresholds are breached under several stress tests, indicating the vulnerability of the baseline to shocks, in particular to net non-debt creating flows and the combined shock for the external DSA and to a temporary growth shock for the public sector DSA. The balance of risks is to the downside. Weak government finances already point to the need for further fiscal adjustment and exceptional financing. In addition, delays in developing the mining sector could intensify dependence on traditional sectors, reduce the level of potential growth and pace of poverty reduction, and ultimately jeopardize fiscal and external sustainability.

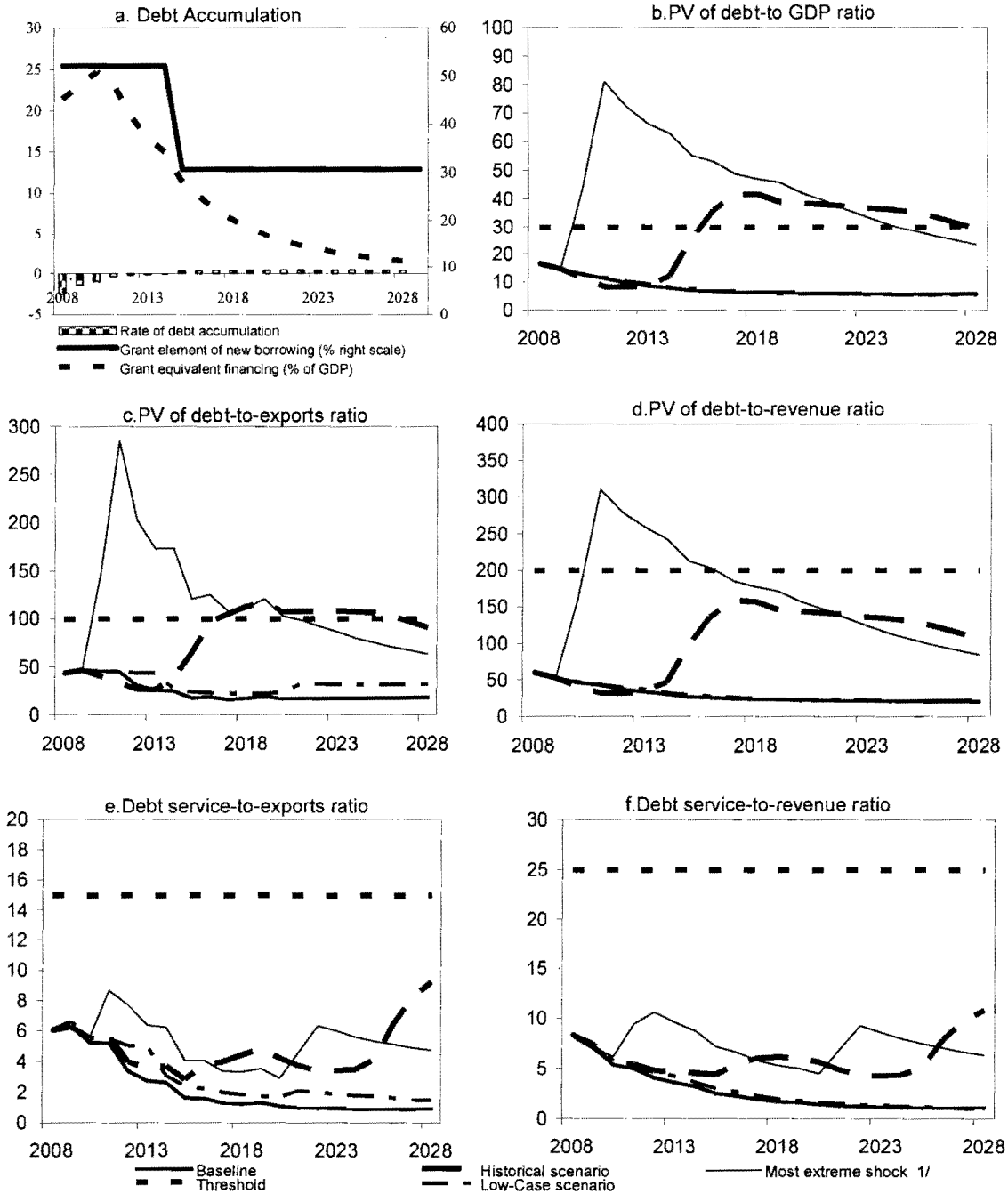
11. **Considering past debt problems and uncertain growth prospects, the government of the Solomon Islands will need proceed cautiously with new borrowing over the medium to long term,** concentrating on productive development outlays—notably growth-enhancing infrastructure. In the meantime, given current vulnerabilities and the near to medium-term outlook, policies will need to be put in place to strengthen underlying fiscal and external positions, supported by additional external assistance.

Table 1. Solomon Islands: Selected Economic Indicators, 2008–29

	2008	2009	2010–14	2015–19	2020–29	2029
	Est.	Proj.		Proj.		Proj.
Growth and prices (percentage change)						
Real GDP (percent change)	6.9	0.4	4.9	6.3	5.6	4.6
Of which: Nontimber and nonmining	7.1	3.7	4.4	5.2	5.0	4.5
CPI (period average, in percent)	17.2	8.0	6.5	5.7	5.0	4.5
Per capita GDP (nominal terms, in US\$)	1,266	1,290	1,612	2,488	4,100	5,140
Central government operations (percent of GDP)						
Total revenue and grants	48.9	50.6	45.5	34.5	29.8	28.9
Total revenue excluding grants	27.5	27.6	26.2	26.5	27.3	27.8
Total expenditure	47.3	51.1	45.5	35.3	31.1	30.5
Recurrent expenditure	23.8	25.3	22.5	21.4	21.4	21.5
Development expenditure	23.5	25.8	23.0	14.0	9.8	8.9
Of which: Domestic financed	4.3	4.5	4.8	5.5	6.6	7.1
Overall balance	1.5	-0.4	0.0	-0.8	-1.3	-1.6
Overall balance excluding grants	-19.9	-23.5	-19.3	-8.9	-3.8	-2.7
Balance of payments (US\$ millions, unless otherwise indicated)						
Current account	-120.0	-69.5	-166.3	-209.3	-150.6	-194.9
(Percent of GDP)	-18.7	-10.4	-18.5	-14.6	-5.1	-4.9
Gross official reserves (US\$ millions, end of period)	90.1	81.4	85.7	697.8	500.0	244.7
(In months of projected imports of GNFS)	3.0	2.3	1.7	11.9	6.4	3.4

Sources: Data provided by Solomon Islands authorities; and IMF staff estimates.

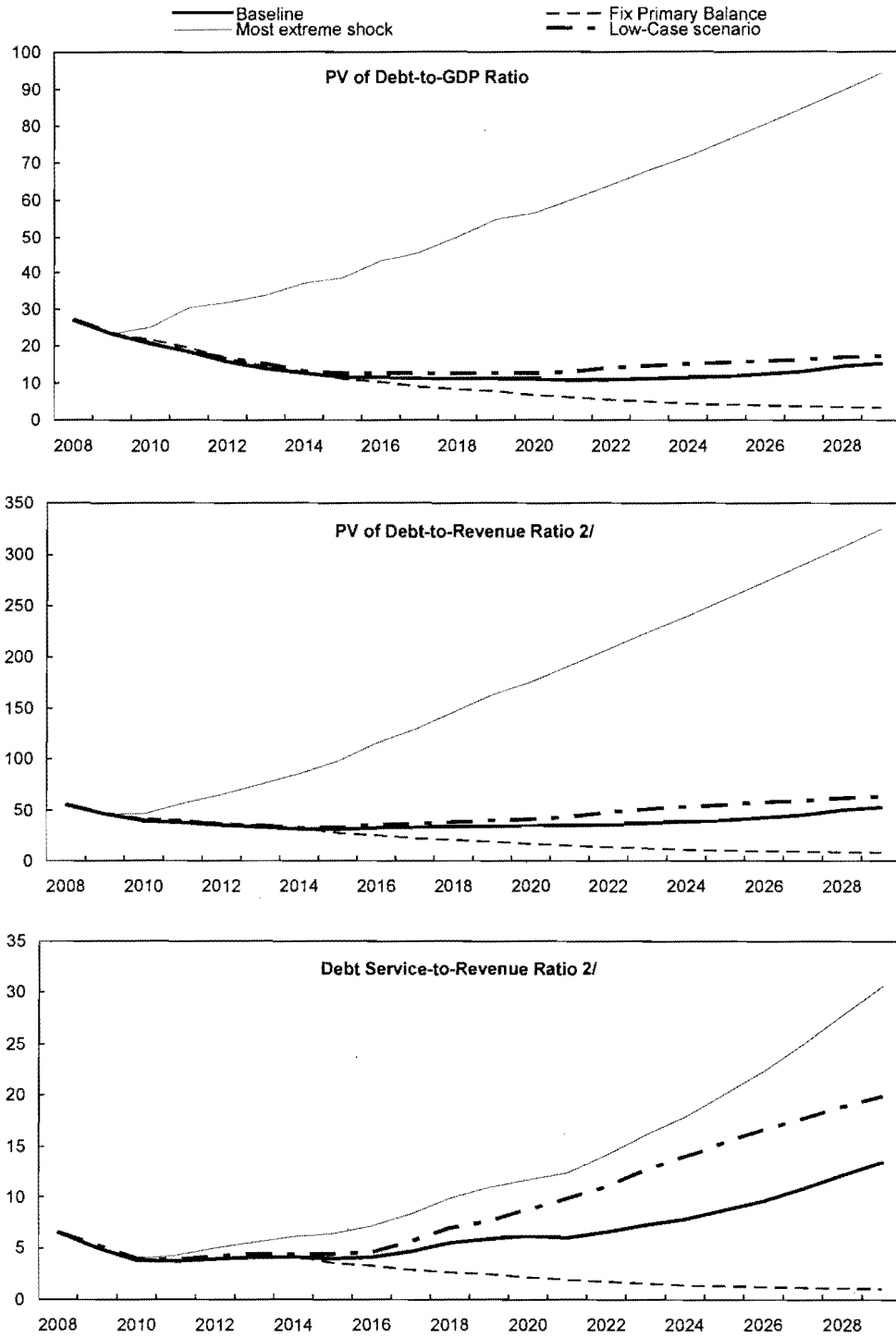
Figure 1. Solomon Islands: Indicators of Public and Publicly Guaranteed External Debt under Alternatives to Baseline Scenario, 2008–29 1/



Source: IMF staff estimates.

1/ The most extreme stress test is the test (among the various bound tests) that yields the highest ratio in 2019. In figure b-f, it corresponds to a combination shock.

Figure 2. Solomon Islands: Indicators of Public Debt under Alternatives to Baseline Scenario, 2008–29 1/



Source: IMF staff estimates.

1/ The most extreme stress test is the test that yields the highest ratio in 2019.

2/ Revenues are defined inclusive of grants.

Table 1a. Solomon Islands: External Debt Sustainability, Baseline Scenario, 2006–29 1/
(In percent of GDP, unless otherwise indicated)

	Actual		Est.	Historical Average	Standard Deviation	Projections						2015–29 Average		
	2006	2007	2008			2009	2010	2011	2012	2013	2014		2009–14 Average	2019	2029
External debt (nominal) 1/	39.4	32.1	25.4			22.2	19.4	17.7	15.5	14.1	13.3		10.6	9.2
Of which: public and publicly guaranteed (PPG)	33.9	27.6	21.8			18.8	16.3	14.8	13.0	11.9	11.2		9.0	7.9
Change in external debt	-2.8	-7.3	-6.7			-3.2	-2.8	-1.7	-2.2	-1.4	-0.8		-0.1	0.1
Identified net debt-creating flows	-3.3	-4.2	0.3			0.0	1.7	1.8	-3.2	-3.1	-6.9		4.2	0.7
Noninterest current account deficit	5.9	11.6	17.8	1.2	9.1	10.6	17.8	22.1	14.9	12.7	23.9		7.5	4.6
Deficit in balance of goods and services	17.4	21.4	20.2			24.0	31.3	32.9	21.7	15.7	25.6		4.7	1.0
Exports	35.5	39.7	38.1			31.3	27.9	24.9	31.3	33.5	31.6		33.4	32.0
Imports	52.9	61.1	58.3			55.4	59.2	57.8	52.9	49.2	57.3		38.1	33.0
Net current transfers (negative = inflow)	-14.4	-15.8	-16.3	-4.6	6.6	-20.7	-22.0	-19.9	-16.2	-13.5	-11.7		-4.1	-1.1
Of which: official	-15.4	-17.0	-17.6			-22.0	-23.3	-21.2	-17.5	-14.8	-13.0		-5.3	-1.5
Other current account flows (negative = net inflow)	2.9	6.1	13.9			7.3	8.5	9.1	9.4	10.4	10.0		6.8	4.7
Net FDI (negative = inflow)	-5.8	-10.5	-13.4	-1.4	4.4	-10.1	-15.0	-19.1	-16.1	-14.4	-29.9		-2.9	-3.5
Endogenous debt dynamics 2/	-3.4	-5.3	-4.1			-0.5	-1.1	-1.2	-2.0	-1.4	-0.8		-0.4	-0.4
Contribution from nominal interest rate	0.6	0.8	0.9			0.5	0.4	0.4	0.3	0.3	0.2		0.2	0.2
Contribution from real GDP growth	-2.7	-3.6	-1.9			-0.1	-0.5	-0.5	-1.4	-0.9	-0.5		-0.3	-0.4
Contribution from price and exchange rate changes	-1.3	-2.6	-3.2			-0.9	-1.0	-1.1	-0.9	-0.7	-0.6		-0.4	-0.2
Residual (3-4) 3/	0.6	-3.0	-7.0			-3.2	-4.5	-3.5	1.0	1.7	6.1		-4.2	-0.7
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
PV of external debt 4/	...	26.6	20.0			17.9	15.8	14.2	12.2	10.8	9.9		7.9	7.1
In percent of exports	...	67.0	52.6			57.2	56.6	56.8	38.9	32.2	31.3		23.5	22.1
PV of PPG external debt	...	22.2	16.6			14.6	12.7	11.3	9.7	8.6	7.9		6.3	5.8
In percent of exports	...	55.8	43.6			46.6	45.5	45.4	30.9	25.5	24.9		19.0	18.1
In percent of government revenues	...	82.6	60.4			52.9	46.6	43.3	37.3	33.6	30.5		23.6	20.9
Debt service-to-exports ratio (in percent)	3.5	6.4	10.3			11.1	10.3	10.4	7.0	5.8	5.6		3.4	2.6
PPG debt service-to-exports ratio (in percent)	2.5	5.8	6.0			6.3	5.2	5.2	3.4	2.7	2.6		1.3	1.0
PPG debt service-to-revenue ratio (in percent)	3.8	8.6	8.4			7.1	5.4	5.0	4.1	3.6	3.2		1.6	1.1
Total gross financing need (millions of U.S. dollars)	8.6	22.9	55.6			28.8	42.8	45.4	10.9	3.9	-44.3		103.3	80.4
Noninterest current account deficit that stabilizes debt ratio	8.6	18.9	24.6			13.8	20.6	23.7	17.1	14.1	24.7		7.5	4.5
Key macroeconomic assumptions														
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	2.4	2.8	8.8	6.5	3.7	4.1	2.8	4.6
GDP deflator in US dollar terms (change in percent)	3.2	7.0	10.9	0.7	9.1	3.7	4.8	5.8	5.5	5.0	4.5	4.9	3.5	2.1
Effective interest rate (percent) 5/	1.5	2.5	3.3	3.8	5.5	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.3
Growth of exports of G&S (US dollar terms, in percent)	16.9	32.5	13.7	2.4	26.8	-14.3	-4.6	-2.7	44.0	19.8	2.3	7.4	-4.0	6.0
Growth of imports of G&S (US dollar terms, in percent)	39.4	36.8	13.2	5.8	33.1	-1.1	14.6	6.3	5.2	4.0	26.0	9.2	4.8	6.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	...	52.2	52.2	52.2	52.2	52.2	30.7	30.7
Government revenues (excluding grants, in percent of GDP)	23.6	26.8	27.5			27.6	27.2	26.1	25.9	25.5	25.8		26.8	27.6
Aid flows (in millions of US dollars) 7/	115.8	140.5	137.8			154.2	177.1	184.1	176.5	171.3	167.7		106.5	59.5
Of which: grants	108.5	126.4	137.3			154.2	177.1	176.3	167.6	161.2	156.9		99.3	46.2
Of which: Concessional loans 8/	7.3	14.1	0.5			0.0	0.0	7.8	9.0	10.0	10.9		7.2	13.3
Grant-equivalent financing (in percent of GDP) 9/	...	...	21.4			23.1	24.7	23.1	19.2	16.6	15.0		5.9	1.4
Grant-equivalent financing (in percent of external financing) 9/	...	...	100.0			100.0	100.0	98.0	97.6	97.2	96.9		90.9	73.8
Memorandum items:														
Nominal GDP (millions of US dollars)	456.7	541.1	641.8			668.4	717.1	779.8	895.5	1001.7	1085.7		1776.0	4003.9
Nominal dollar GDP growth	10.3	18.5	18.6			4.2	7.3	8.8	14.8	11.9	8.4	9.2	6.4	6.8
PV of PPG external debt (in millions of US dollars)	...	120.0	106.5			97.6	91.0	88.3	86.7	85.7	85.4		112.3	231.5
(PVt-PVt-1)/GDPT-1 (in percent)	...	...	-2.5			-1.4	-1.0	-0.4	-0.2	-0.1	0.0	-0.5	0.4	0.4

Sources: Solomon Islands authorities; and IMF staff estimates and projections.

1/ Includes both public and private sector external gross debt. The DSA exercise was conducted jointly with the World Bank.

2/ Derived as $[r - g - r(1+g)] / (1+g+r+gr)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., debt relief); changes in gross foreign assets; and valuation adjustments. Residuals are large in the latter half of the projection period, as reserves fluctuate mainly due to the large and volatile FDI from the nickel mining company.

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

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

6/ Historical averages and standard deviations are derived over the past 10 years.

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

8/ In 2008, refers to disbursements from previous loans.

9/ 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).

Table 1b. Solomon Islands: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009–29
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of debt-to-GDP ratio								
Baseline	15	13	11	10	9	8	6	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010–29 1/	15	11	8	8	9	12	39	27
A2. New public sector loans on less favorable terms in 2010–29 2/	15	13	11	10	9	8	7	7
A3. High-Case Scenario 3/	14	13	11	10	9	9	8	8
A4. Low-Case Scenario 4/	15	13	11	10	9	8	6	6
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	15	14	14	12	10	9	8	7
B2. Export value growth at historical average minus one standard deviation in 2010–11 5/	15	16	15	13	12	11	8	7
B3. U.S. dollar GDP deflator at historical average minus one standard deviation in 2010–11	15	15	15	13	11	10	8	8
B4. Net nondebt creating flows at historical average minus one standard deviation in 2010–11 6/	15	40	67	59	54	51	38	17
B5. Combination of B1–B4 using one-half standard deviation shocks	15	44	81	72	66	63	46	22
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 7/	15	17	15	13	12	11	9	8
PV of debt-to-exports ratio								
Baseline	47	46	45	31	26	25	19	18
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010–29 1/	47	40	34	27	26	38	117	85
A2. New public sector loans on less favorable terms in 2010–29 2/	47	46	46	32	26	26	21	22
A3. High-Case Scenario 3/	46	46	46	33	29	29	25	26
A4. Low-Case Scenario 4/	47	46	46	44	44	28	22	32
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	47	45	45	31	25	25	19	18
B2. Export value growth at historical average minus one standard deviation in 2010–11 5/	47	75	97	67	56	55	41	33
B3. U.S. dollar GDP deflator at historical average minus one standard deviation in 2010–11	47	45	45	31	25	25	19	18
B4. Net nondebt creating flows at historical average minus one standard deviation in 2010–11 6/	47	145	267	190	162	163	113	55
B5. Combination of B1–B4 using one-half standard deviation shocks	47	146	285	203	173	174	121	59
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 7/	47	45	45	31	25	25	19	18
PV of debt-to-revenue ratio								
Baseline	53	47	43	37	34	30	24	21
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010–29 1/	53	41	32	32	34	47	146	98
A2. New public sector loans on less favorable terms in 2010–29 2/	53	47	44	36	35	32	26	25
A3. High-Case Scenario 3/	53	45	41	36	34	32	27	26
A4. Low-Case Scenario 4/	53	47	44	40	37	32	23	22
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	53	51	52	45	40	37	28	25
B2. Export value growth at historical average minus one standard deviation in 2010–11 5/	53	61	57	50	45	41	31	24
B3. U.S. dollar GDP deflator at historical average minus one standard deviation in 2010–11	53	53	57	49	44	40	31	28
B4. Net nondebt creating flows at historical average minus one standard deviation in 2010–11 6/	53	148	254	229	213	199	140	63
B5. Combination of B1–B4 using one-half standard deviation shocks	53	160	310	279	260	243	171	79
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 7/	53	64	59	51	46	42	32	28
Debt service-to-exports ratio								
Baseline	6	5	5	3	3	3	1	1
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010–29 1/	6	6	6	4	4	4	5	9
A2. New public sector loans on less favorable terms in 2010–29 2/	6	5	5	3	3	3	2	1
A3. High-Case Scenario 3/	6	5	5	3	3	3	1	1
A4. Low-Case Scenario 4/	7	6	6	5	5	3	2	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	6	5	5	3	3	3	1	1
B2. Export value growth at historical average minus one standard deviation in 2010–11 5/	6	7	9	6	5	5	2	2
B3. U.S. dollar GDP deflator at historical average minus one standard deviation in 2010–11	6	5	5	3	3	3	1	1
B4. Net nondebt creating flows at historical average minus one standard deviation in 2010–11 6/	6	5	8	7	6	6	3	4
B5. Combination of B1–B4 using one-half standard deviation shocks	6	6	9	8	6	6	4	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 7/	6	5	5	3	3	3	1	1
Debt service-to-revenue ratio								
Baseline	7	5	5	4	4	3	2	1
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010–29 1/	7	6	5	5	5	5	6	11
A2. New public sector loans on less favorable terms in 2010–29 2/	7	5	5	4	4	3	2	1
A3. High-Case Scenario 3/	7	5	4	4	3	3	2	1
A4. Low-Case Scenario 4/	8	6	5	5	4	4	2	1
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	7	6	6	5	4	4	2	1
B2. Export value growth at historical average minus one standard deviation in 2010–11 5/	7	5	5	4	4	3	2	1
B3. U.S. dollar GDP deflator at historical average minus one standard deviation in 2010–11	7	6	7	5	5	4	2	1
B4. Net nondebt creating flows at historical average minus one standard deviation in 2010–11 6/	7	5	7	8	8	7	4	5
B5. Combination of B1–B4 using one-half standard deviation shocks	7	6	9	11	10	9	5	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 7/	7	7	7	6	5	4	2	2
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 8/	0	0	0	0	0	0	0	0

Source: IMF staff estimates.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows. The DSA exercise was conducted jointly with the World Bank.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.

3/ See Table 3a for details.

4/ See Table 4a for details.

5/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

6/ Includes official and private transfers and FDI.

7/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

8/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 2a. Solomon Islands: Public Sector Debt Sustainability, Baseline Scenario, 2006–29
(In percent of GDP, unless otherwise indicated)

	Actual		Est.	Historical Average	Standard Deviation	Projections								
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
Public sector debt 1/	57.1	40.3	31.8			27.3	24.0	21.8	18.9	17.0	15.9		13.7	17.3
Of which: foreign-currency denominated	33.9	27.6	21.8			18.8	16.3	14.8	13.0	11.9	11.2		9.0	7.9
Change in public sector debt	4.4	-16.8	-8.5			-4.4	-3.3	-2.2	-2.8	-1.9	-1.1		-0.1	0.7
Identified debt-creating flows	-7.2	-9.6	-7.3			-2.1	-3.1	-1.8	-2.5	-1.6	-0.9		-0.1	0.5
Primary deficit	-2.4	-1.4	-2.4	-0.2	4.3	0.0	-1.2	-0.1	0.1	0.2	0.3	-0.1	0.6	1.1
Revenue and grants	47.3	50.2	48.9			50.6	51.9	48.8	44.6	41.6	40.3		32.4	28.8
Of which: grants	23.8	23.4	21.4			23.1	24.7	22.6	18.7	16.1	14.5		5.6	1.2
Primary (noninterest) expenditure	45.0	48.8	46.4			50.6	50.7	48.7	44.7	41.8	40.5		33.0	29.9
Automatic debt dynamics	-4.6	-8.1	-4.8			-1.6	-1.7	-1.7	-2.6	-1.8	-1.2		-0.6	-0.6
Contribution from interest rate/growth differential	-4.4	-6.9	-3.5			-0.7	-0.9	-1.0	-2.1	-1.5	-0.9		-0.5	-0.6
Of which: contribution from average real interest rate	-1.0	-1.4	-0.9			-0.5	-0.2	-0.3	-0.4	-0.3	-0.3		-0.1	0.1
Of which: contribution from real GDP growth	-3.4	-5.5	-2.6			-0.1	-0.6	-0.7	-1.8	-1.2	-0.6		-0.4	-0.7
Contribution from real exchange rate depreciation	-0.2	-1.2	-1.3			-1.0	-0.8	-0.8	-0.5	-0.4	-0.3		-0.1	0.0
Other identified debt-creating flows	-0.3	-0.2	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0
Privatization receipts (negative)	-0.2	0.0	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities 2/	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)	-0.1	-0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Other	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Residual, including asset changes	11.6	-7.1	-1.3			-2.4	-0.3	-0.4	-0.3	-0.3	-0.2		0.0	0.2
Other Sustainability Indicators														
PV of public sector debt	...	34.8	27.1			23.3	20.6	18.4	15.7	13.8	12.6		11.1	15.2
Of which: foreign-currency denominated	...	22.2	17.1			14.8	12.8	11.4	9.8	8.7	8.0		6.4	5.8
Of which: external	...	22.2	17.1			14.8	12.8	11.4	9.8	8.7	8.0		6.4	5.8
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 3/	-0.1	2.6	1.1			2.8	1.0	2.0	2.0	2.1	2.1		2.6	5.0
PV of public sector debt-to-revenue and grants ratio (in percent)	...	69.4	55.5			46.0	39.6	37.7	35.2	33.2	31.3		34.1	52.8
PV of public sector debt-to-revenue ratio (in percent)	...	129.9	98.7			84.5	75.6	70.4	60.6	54.2	48.9		41.2	55.0
Of which: external 4/	...	82.7	62.4			53.7	47.2	43.8	37.8	33.9	30.8		23.8	21.2
Debt service-to-revenue and grants ratio (in percent) 5/	3.6	6.7	6.5			5.0	3.8	3.7	4.0	4.1	4.1		5.9	13.5
Debt service-to-revenue ratio (in percent) 5/	7.2	12.4	11.7			9.2	7.3	7.0	6.8	6.7	6.5		7.2	14.0
Primary deficit that stabilizes the debt-to-GDP ratio	-6.7	15.4	6.1			4.4	2.1	2.2	2.9	2.1	1.4		0.6	0.4
Key macroeconomic and fiscal assumptions														
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	2.4	2.8	8.8	6.5	3.7	4.1	2.8	4.6
Average nominal interest rate on forex debt (in percent)	0.8	2.1	2.9	1.2	0.6	1.3	1.3	1.3	1.2	1.2	1.1	1.2	1.3	1.7
Average real interest rate on forex debt (in percent)	-2.3	-0.6	0.7	-1.3	0.9	0.4	0.9	0.7	-0.2	-0.8	-0.8	0.0	-0.6	-0.2
Real exchange rate depreciation (in percent, + indicates depreciation)	-0.5	-4.0	-5.0	1.3	10.3	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.3	7.6	12.3	7.8	2.5	8.6	7.5	8.2	7.9	7.5	6.9	7.8	5.9	4.5
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.2	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	...	52.2	52.2	52.2	52.2	...	30.7	30.7

Source: Solomon Islands authorities; and IMF staff estimates and projections

1/ The public sector covers only the central government.

2/ Current estimate of recognized contingent liabilities.

3/ 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.

4/ Revenues excluding grants.

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

6/ Historical averages and standard deviations are derived over the past 10 years.

Table 2b. Solomon Islands: Sensitivity Analysis for Key Indicators of Public Debt 2009-2029

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	23	21	18	16	14	13	11	15
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	23	22	20	18	16	14	10	4
A2. Primary balance is unchanged from 2009	23	22	20	17	14	13	8	3
A3. Permanently lower GDP growth 1/	23	21	20	19	19	20	35	109
A4. High-Case Scenario 2/	23	20	18	16	14	14	11	10
A5. Low-Case Scenario 3/	23	21	19	17	15	13	13	17
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	23	25	30	32	34	37	55	94
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	23	26	28	24	22	20	17	19
B3. Combination of B1-B2 using one half standard deviation shocks	23	25	26	25	25	27	36	59
B4. One-time 30 percent real depreciation in 2010	23	26	24	21	19	18	16	20
B5. 10 percent of GDP increase in other debt-creating flows in 2010	23	31	28	24	22	20	17	19
PV of Debt-to-Revenue Ratio 2/								
Baseline	46	40	38	35	33	31	34	53
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	46	42	40	38	36	33	23	9
A2. Primary balance is unchanged from 2009	46	42	40	37	35	32	19	8
A3. Permanently lower GDP growth 1/	46	41	41	42	44	48	105	375
A4. High-Case Scenario 2/	46	38	35	34	33	33	30	32
A5. Low-Case Scenario 3/	46	40	38	36	35	32	40	64
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	46	46	57	65	75	86	163	325
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	46	50	57	54	52	50	51	66
B3. Combination of B1-B2 using one half standard deviation shocks	46	48	52	54	59	64	108	204
B4. One-time 30 percent real depreciation in 2010	46	50	49	47	45	44	49	70
B5. 10 percent of GDP increase in other debt-creating flows in 2010	46	59	57	55	53	51	52	66
Debt Service-to-Revenue Ratio 2/								
Baseline	5	4	4	4	4	4	6	13
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	5	4	4	4	5	5	3	1
A2. Primary balance is unchanged from 2009	5	4	4	4	4	4	2	1
A3. Permanently lower GDP growth 1/	5	4	4	4	4	5	9	31
A4. High-Case Scenario 2/	5	3	3	4	4	4	3	4
A5. Low-Case Scenario 3/	5	4	4	4	4	4	8	20
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	5	4	4	5	6	6	11	31
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	5	4	4	5	5	5	7	15
B3. Combination of B1-B2 using one half standard deviation shocks	5	4	4	5	5	5	9	23
B4. One-time 30 percent real depreciation in 2010	5	4	5	5	5	5	7	15
B5. 10 percent of GDP increase in other debt-creating flows in 2010	5	4	5	5	5	5	7	15

Source: IMF staff estimates.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the length of the projection period. The DSA exercise was conducted jointly with the World Bank.

2/ See Table 3b for details.

3/ See Table 4b for details.

4/ Revenues are defined inclusive of grants.

Table 3a. Solomon Islands: External Debt Sustainability, High-Case Scenario, 2006–29 1/
(In percent of GDP, unless otherwise indicated)

	Actual		Est.	Historical Average	Standard Deviation	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009-14 Average	2019	2029	2015–29 Average
External debt (nominal) 1/	39.4	32.1	25.4			22.2	19.2	17.9	16.4	15.8	15.8		13.5	13.4	
Of which: public and public guaranteed (PPG)	33.9	27.6	21.8			18.8	16.2	15.1	14.0	13.7	13.9		12.1	10.5	
Change in external debt	-2.8	-7.3	-6.7			-3.2	-2.9	-1.3	-1.5	-0.6	0.0		-0.2	0.2	
Identified net debt-creating flows	-3.3	-4.2	0.3			-0.7	0.3	1.9	-2.9	-2.6	-4.9		3.9	-0.3	
Noninterest current account deficit	5.9	11.6	17.8	1.2	9.1	10.0	17.8	20.7	14.1	12.1	23.6		7.0	4.1	7.5
Deficit in balance of goods and services	17.4	21.4	20.2			23.4	33.1	33.6	22.1	15.9	25.1		4.9	2.2	
Exports	35.5	39.7	38.1			31.3	27.5	24.5	30.6	32.6	30.7		33.0	31.4	
Imports	52.9	61.1	58.3			54.7	60.7	58.2	52.7	48.5	55.8		37.9	33.5	
Net current transfers (negative = inflow)	-14.4	-15.8	-16.3	-4.6	6.6	-20.7	-23.8	-21.8	-17.2	-13.8	-11.0		-3.9	-1.4	-3.2
Of which: official	-15.4	-17.0	-17.6			-22.0	-25.1	-23.1	-18.5	-15.1	-12.3		-5.0	-1.4	
Other current account flows (negative = net inflow)	2.9	6.1	13.9			7.3	8.4	8.9	9.1	10.0	9.5		5.9	3.3	
Net FDI (negative = inflow)	-5.8	-10.5	-13.4	-1.4	4.4	-10.1	-16.2	-17.3	-14.7	-13.1	-27.4		-2.4	-3.7	-8.8
Endogenous debt dynamics 2/	-3.4	-5.3	-4.1			-0.6	-1.3	-1.4	-2.2	-1.6	-1.1		-0.7	-0.7	
Contribution from nominal interest rate	0.6	0.8	0.9			0.5	0.4	0.4	0.3	0.3	0.2		0.2	0.3	
Contribution from real GDP growth	-2.7	-3.6	-1.9			-0.1	-0.6	-0.7	-1.5	-1.1	-0.8		-0.5	-0.7	
Contribution from price and exchange rate changes	-1.3	-2.6	-3.2			-1.0	-1.1	-1.1	-1.0	-0.8	-0.6		-0.5	-0.3	
Residual (3-4) 3/	0.6	-3.0	-7.0			-2.5	-3.2	-3.2	1.3	2.0	4.9		-4.1	0.4	
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	
PV of external debt 4/	...	26.4	19.9			17.8	15.6	14.1	12.4	11.4	11.0		9.6	10.9	
In percent of exports	...	66.6	52.2			57.0	56.6	57.5	40.6	35.1	35.7		29.2	34.8	
PV of PPG external debt	...	22.0	16.4			14.5	12.5	11.3	10.0	9.3	9.0		8.2	8.0	
In percent of exports	...	55.4	43.2			46.4	45.5	46.2	32.7	28.6	29.4		24.9	25.6	
In percent of government revenues	...	82.0	59.8			52.6	45.3	41.3	36.0	33.5	32.1		27.2	26.2	
Debt service-to-exports ratio (in percent)	3.5	6.4	10.3			10.9	10.1	10.1	6.8	5.6	5.4		3.3	4.9	
PPG debt service-to-exports ratio (in percent)	2.5	5.8	6.0			6.0	5.0	4.9	3.2	2.6	2.5		1.4	1.3	
PPG debt service-to-revenue ratio (in percent)	3.8	8.6	8.4			6.8	4.9	4.4	3.5	3.1	2.8		1.5	1.3	
Total gross financing need (millions of U.S. dollars)	8.6	22.9	55.6			24.0	33.9	48.5	14.7	10.8	-22.6		110.2	95.9	
Noninterest current account deficit that stabilizes debt ratio	8.6	18.9	24.6			13.2	20.7	22.0	15.6	12.7	23.7		7.1	3.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	3.0	3.8	9.7	7.7	5.3	5.0	3.7	6.1	6.7
GDP deflator in US dollar terms (change in percent)	3.2	7.0	10.9	0.7	9.1	4.0	5.3	6.1	5.6	4.9	4.0	5.0	3.4	2.1	3.0
Effective interest rate (percent) 5/	1.5	2.5	3.3	3.8	5.5	2.0	2.0	2.0	2.0	1.9	1.7	1.9	1.8	2.6	2.1
Growth of exports of G&S (US dollar terms, in percent)	16.9	32.5	13.7	2.4	26.8	-14.3	-4.5	-1.8	44.6	20.4	3.1	7.9	-2.6	7.4	10.6
Growth of imports of G&S (US dollar terms, in percent)	39.4	36.8	13.2	5.8	33.1	-2.1	20.4	5.7	5.0	4.0	26.0	9.8	5.7	8.3	6.5
Grant element of new public sector borrowing (in percent)	52.2	52.2	52.2	52.2	52.2	30.7	20.5	27.3
Government revenues (excluding grants, in percent of GDP)	23.6	26.8	27.5			27.6	27.7	27.4	27.8	27.8	28.1		30.2	30.7	30.2
Aid flows (in millions of US dollars) 7/	115.8	140.5	137.8			154.6	192.2	208.5	199.2	192.7	180.5		111.3	60.6	
Of which: grants	108.5	126.4	137.3			154.6	192.2	196.5	183.0	171.8	157.5		102.2	50.0	
Of which: concessional loans 8/	7.3	14.1	0.5			0.0	0.0	12.0	16.2	21.0	23.0		9.1	10.6	
Grant-equivalent financing (in percent of GDP) 9/	21.4			23.1	26.4	25.3	20.6	17.4	14.7		5.6	1.3	4.4
Grant-equivalent financing (in percent of external financing) 9/	100.0			100.0	100.0	97.2	96.1	94.8	93.9		89.0	61.3	80.0
Memorandum items:															
Nominal GDP (millions of US dollars)	456.7	541.1	641.8			670.1	726.9	801.0	928.4	1049.1	1149.2		1920.1	4732.2	
Nominal dollar GDP growth	10.3	18.5	18.6			4.4	8.5	10.2	15.9	13.0	9.5	10.3	7.2	8.3	9.9
PV of PPG external debt (in millions of US dollars)	...	119.0	105.5			97.2	91.1	90.8	93.1	97.8	103.8		158.1	379.6	
(PVt-PVt-1)/GDPT-1 (in percent)	-2.5			-1.3	-0.9	0.0	0.3	0.5	0.6		-0.1	0.6	0.7

Source: Solomon Islands authorities; and IMF staff estimates and projections

1/ Includes both public and private sector external gross debt. The DSA exercise was conducted jointly with the World Bank.

2/ Derived as $[r - g - r(1+g)] / [(1+g+r+gr)]$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., debt relief); changes in gross foreign assets; and valuation adjustments. Residuals are large in the latter half of the projection period, as reserves fluctuate mainly due to the large and volatile FDI from the nickel mining company.

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

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

6/ Historical averages and standard deviations are derived over the past 10 years.

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

8/ In 2008, refers to disbursements from previous loans.

9/ 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).

Table 3b. Solomon Islands: Public Sector Debt Sustainability, High-Case Scenario, 2006–29
(In percent of GDP, unless otherwise indicated)

	Actual		Est. 2008	Historical Average	Standard Deviation	Projections									
	2006	2007				2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
Public sector debt 1/	57.1	40.3	31.8			27.3	23.8	22.0	19.8	18.7	18.4		13.6	12.5	
Of which: foreign-currency denominated	33.9	27.6	21.8			18.8	16.2	15.1	14.0	13.7	13.9		12.1	10.5	
Change in public sector debt	4.4	-16.8	-8.5			-4.4	-3.5	-1.9	-2.2	-1.1	-0.4		-1.0	0.0	
Identified debt-creating flows	-7.2	-9.6	-7.3			-2.2	-4.5	-3.2	-3.7	-2.7	-2.0		-2.7	-0.7	
Primary deficit	-2.4	-1.4	-2.4	-0.2	4.3	0.0	-2.4	-1.3	-0.8	-0.6	-0.5	-0.9	-2.0	0.0	
Revenue and grants	47.3	50.2	48.9			50.6	54.1	51.9	47.5	44.2	41.8		35.6	31.7	
Of which: grants	23.8	23.4	21.4			23.1	26.4	24.5	19.7	16.4	13.7		5.3	1.1	
Primary (noninterest) expenditure	45.0	48.8	46.4			50.6	51.7	50.7	46.7	43.6	41.3		33.6	31.7	
Automatic debt dynamics	-4.6	-8.1	-4.8			-1.7	-1.9	-2.0	-2.8	-2.1	-1.4		-0.8	-0.7	
Contribution from interest rate/growth differential	-4.4	-6.9	-3.5			-0.7	-1.0	-1.2	-2.3	-1.7	-1.2		-0.6	-0.7	
Of which: contribution from average real interest rate	-1.0	-1.4	-0.9			-0.5	-0.2	-0.3	-0.3	-0.3	-0.3		-0.1	0.0	
Of which: contribution from real GDP growth	-3.4	-5.5	-2.6			-0.1	-0.8	-0.9	-2.0	-1.4	-0.9		-0.5	-0.7	
Contribution from real exchange rate depreciation	-0.2	-1.2	-1.3			-1.1	-0.9	-0.8	-0.5	-0.4	-0.3		-0.2	0.0	
Other identified debt-creating flows	-0.3	-0.2	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.2	0.0	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities 2/	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)	-0.1	-0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	11.6	-7.1	-1.3			-2.2	1.0	1.4	1.5	1.6	1.6		1.8	0.7	
Other Sustainability Indicators															
PV of public sector debt	...	34.7	27.0			23.2	20.3	18.3	15.9	14.5	13.6		9.8	10.1	
Of which: foreign-currency denominated	...	22.0	17.0			14.7	12.6	11.4	10.1	9.4	9.1		8.3	8.1	
Of which: external	...	22.0	17.0			14.7	12.6	11.4	10.1	9.4	9.1		8.3	8.1	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 3/	-0.1	2.6	1.1			2.7	-0.3	0.7	1.0	1.2	1.2		-0.7	1.2	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	69.1	55.2			45.8	37.6	35.2	33.5	32.7	32.6		27.7	32.0	
PV of public sector debt-to-revenue ratio (in percent)	...	129.2	98.1			84.0	73.5	66.7	57.2	51.9	48.5		32.5	33.1	
Of which: external 4/	...	82.1	61.8			53.2	45.7	41.7	36.4	33.8	32.4		27.5	26.4	
Debt service-to-revenue and grants ratio (in percent) 5/	3.6	6.7	6.5			4.8	3.5	3.3	3.5	3.7	3.8		3.4	3.7	
Debt service-to-revenue ratio (in percent) 5/	7.2	12.4	11.7			8.9	6.8	6.3	6.0	5.9	5.7		4.0	3.8	
Primary deficit that stabilizes the debt-to-GDP ratio	-6.7	15.4	6.1			4.4	1.1	0.6	1.3	0.5	-0.2		-1.0	0.0	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	3.0	3.8	9.7	7.7	5.3	5.0	3.7	6.1	
Average nominal interest rate on forex debt (in percent)	0.8	2.1	2.9	1.2	0.6	1.3	1.3	1.3	1.2	1.1	1.1	1.2	1.3	1.9	
Average real interest rate on forex debt (in percent)	-2.3	-0.6	0.7	-1.3	0.9	0.4	0.9	0.7	-0.3	-0.8	-0.9	0.0	-0.6	-0.1	
Real exchange rate depreciation (in percent, + indicates depreciation)	-0.5	-4.0	-5.0	1.3	10.3	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.3	7.6	12.3	7.8	2.5	8.6	7.5	8.1	7.5	6.8	5.9	7.4	5.3	4.0	
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.2	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	...	52.2	52.2	52.2	52.2	...	30.7	20.5

Source: Solomon Islands authorities; and IMF staff estimates and projections.

1/ The public sector covers only the central government.

2/ Current estimate of recognized contingent liabilities.

3/ 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.

4/ Revenues excluding grants.

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

6/ Historical averages and standard deviations are derived over the past 10 years.

Table 4a. Solomon Islands: External Debt Sustainability, Low-Case Scenario, 2006–29 1/
(In percent of GDP, unless otherwise indicated)

	Actual		Est. 2008	Historical Average	Standard Deviation	Projections									
	2006	2007				2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
External debt (nominal) 1/	39.4	32.1	25.4			22.2	19.4	17.8	16.4	15.4	13.8		11.5	10.6	
Of which: public and publicly guaranteed (PPG)	33.9	27.6	21.8			18.8	16.3	14.9	13.7	12.9	11.6		9.5	8.9	
Change in external debt	-2.8	-7.3	-6.7			-3.2	-2.8	-1.6	-1.4	-1.0	-1.6		-0.3	0.0	
Identified net debt-creating flows	-3.3	-4.2	0.3			0.2	2.2	4.9	2.9	2.0	-3.4		2.5	-0.5	
Noninterest current account deficit	5.9	11.6	17.8	1.2	9.1	10.8	18.3	18.2	14.4	12.9	4.3		7.5	2.6	4.5
Deficit in balance of goods and services	17.4	21.4	20.2			24.2	31.9	29.5	24.8	21.2	8.1		5.6	0.9	
Exports	35.5	39.7	38.1			31.4	28.1	25.1	23.6	21.4	29.7		26.8	17.5	
Imports	52.9	61.1	58.3			55.7	60.0	54.6	48.3	42.6	37.7		32.3	18.4	
Net current transfers (negative = inflow)	-14.4	-15.8	-16.3	-4.6	6.6	-20.7	-22.2	-20.5	-17.9	-15.9	-13.3		-5.4	-1.7	-4.6
Of which: official	-15.4	-17.0	-17.6			-22.0	-23.5	-21.5	-18.8	-16.6	-13.9		-6.0	-2.0	
Other current account flows (negative = net inflow)	2.9	6.1	13.9			7.3	8.5	9.1	7.5	7.5	9.6		7.4	3.5	
Net FDI (negative = inflow)	-5.8	-10.5	-13.4	-1.4	4.4	-10.1	-15.1	-12.2	-10.5	-10.1	-6.1		-4.3	-2.7	-3.9
Endogenous debt dynamics 2/	-3.4	-5.3	-4.1			-0.5	-1.0	-1.1	-1.0	-0.8	-1.6		-0.7	-0.4	
Contribution from nominal interest rate	0.6	0.8	0.9			0.5	0.4	0.4	0.3	0.3	0.3		0.2	0.2	
Contribution from real GDP growth	-2.7	-3.6	-1.9			-0.1	-0.5	-0.5	-0.5	-0.4	-1.2		-0.5	-0.4	
Contribution from price and exchange rate changes	-1.3	-2.6	-3.2			-0.8	-0.9	-0.9	-0.8	-0.7	-0.6		-0.4	-0.2	
Residual (3-4) 3/	0.6	-3.0	-7.0			-3.4	-5.0	-6.5	-4.3	-3.1	1.8		-2.8	0.4	
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	
PV of external debt 4/	...	26.9	20.2			18.1	15.9	14.3	13.0	11.9	10.4		7.8	7.3	
In percent of exports	...	67.6	53.2			57.5	56.7	57.1	55.0	55.6	35.0		29.2	42.0	
PV of PPG external debt	...	22.4	16.8			14.7	12.8	11.4	10.3	9.4	8.2		5.9	5.6	
In percent of exports	...	56.4	44.1			46.9	45.6	45.6	43.6	43.9	27.6		22.1	32.3	
In percent of government revenues	...	83.5	61.1			53.4	47.4	43.9	39.9	37.3	32.5		23.2	22.0	
Debt service-to-exports ratio (in percent)	3.5	6.4	10.3			11.5	10.6	10.8	10.2	10.3	6.5		4.8	5.9	
PPG debt service-to-exports ratio (in percent)	2.5	5.8	6.0			6.6	5.5	5.5	5.0	5.0	3.1		1.7	1.5	
PPG debt service-to-revenue ratio (in percent)	3.8	8.6	8.4			7.5	5.8	5.3	4.6	4.2	3.6		1.8	1.0	
Total gross financing need (millions of U.S. dollars)	8.6	22.9	55.6			30.5	45.6	68.4	54.5	46.9	2.6		68.7	28.8	
Noninterest current account deficit that stabilizes debt ratio	8.6	18.9	24.6			14.0	21.0	19.8	15.7	13.9	5.9		7.8	2.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	2.4	2.7	3.1	2.7	9.1	3.4	4.4	3.6	3.8
GDP deflator in US dollar terms (change in percent)	3.2	7.0	10.9	0.7	9.1	3.4	4.2	5.1	4.9	4.4	3.9	4.3	3.8	2.1	3.3
Effective interest rate (percent) 5/	1.5	2.5	3.3	3.8	5.5	2.0	2.0	2.1	2.0	2.0	1.9	2.0	1.7	2.0	1.9
Growth of exports of G&S (US dollar terms, in percent)	16.9	32.5	13.7	2.4	26.8	-14.3	-4.6	-3.6	1.6	-2.8	57.4	5.6	5.1	6.3	3.9
Growth of imports of G&S (US dollar terms, in percent)	39.4	36.8	13.2	5.8	33.1	-0.8	15.0	-1.7	-4.2	-5.5	0.4	0.5	3.0	5.1	2.4
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	...	52.2	52.2	52.2	52.2	52.2	52.2	40.9	44.7
Government revenues (excluding grants, in percent of GDP)	23.6	26.8	27.5			27.6	27.1	26.0	25.8	25.2	25.2		25.6	25.7	25.4
Aid flows (in millions of US dollars) 7/	115.8	140.5	137.8			153.7	176.9	183.6	175.4	169.6	166.3		108.8	56.7	
Of which: grants	108.5	126.4	137.3			153.7	176.9	175.9	167.1	160.7	156.2		96.0	42.1	
Of which: concessional loans 8/	7.3	14.1	0.5			0.0	0.0	7.7	8.3	8.9	10.1		12.8	14.6	
Grant-equivalent financing (in percent of GDP) 9/	...	...	21.4			23.1	24.9	23.4	20.6	18.5	16.0		6.8	1.8	5.5
Grant-equivalent financing (in percent of external financing) 9/	...	...	100.0			100.0	100.0	98.0	97.7	97.5	97.1		94.4	80.9	90.1
Memorandum items:															
Nominal GDP (millions of US dollars)	456.7	541.1	641.8			666.5	710.8	767.9	830.8	891.4	1010.5		1507.8	2869.5	
Nominal dollar GDP growth	10.3	18.5	18.6			3.9	6.7	8.0	8.2	7.3	13.4	7.9	8.4	5.8	7.2
PV of PPG external debt (in millions of US dollars)	...	121.2	107.7			98.2	91.1	87.8	85.4	83.6	82.6		89.3	161.9	
(PVT-PVT-1)/GDPt-1 (in percent)	...	...	-2.5			-1.5	-1.1	-0.5	-0.3	-0.2	-0.1	-0.6	0.2	0.4	0.3

Source: Solomon Islands authorities, and IMF staff estimates and projections

1/ Includes both public and private sector external gross debt. The DSA exercise was conducted jointly with the World Bank.

2/ Derived as $[r - g - r(1+g)] / (1+g+r)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., debt relief); changes in gross foreign assets; and valuation adjustments. Residuals are large in the latter half of the projection period, as reserves fluctuate mainly due to the large and volatile FDI from the nickel mining company.

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

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

6/ Historical averages and standard deviations are derived over the past 10 years.

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

8/ In 2008, refers to disbursements from previous loans.

9/ 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).

Table 4b. Solomon Islands: Public Sector Debt Sustainability, Low-Case Scenario, 2006–29
(In percent of GDP, unless otherwise indicated)

	Actual		Est. 2008	Historical Average	Standard Deviation	Projections									
	2006	2007				2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
Public sector debt 1/	57.1	40.3	31.8			27.3	24.0	21.8	20.0	18.5	16.4		16.2	20.4	
Of which: foreign-currency denominated	33.9	27.6	21.8			18.8	16.3	14.9	13.7	12.9	11.6		9.5	8.9	
Change in public sector debt	4.4	-16.8	-8.5			-4.4	-3.3	-2.2	-1.8	-1.4	-2.1		0.0	0.3	
Identified debt-creating flows	-7.2	-9.6	-7.3			-2.0	-3.0	-1.7	-1.2	-0.8	-1.6		0.0	0.3	
Primary deficit	-2.4	-1.4	-2.4	-0.2	4.3	0.0	-1.2	-0.1	0.3	0.4	0.5	0.0	1.1	1.0	1.2
Revenue and grants	47.3	50.2	48.9			50.6	51.9	48.9	45.9	43.2	40.6		31.9	27.2	
Of which: grants	23.8	23.4	21.4			23.1	24.9	22.9	20.1	18.0	15.5		6.4	1.5	
Primary (noninterest) expenditure	45.0	48.8	46.4			50.6	50.7	48.9	46.2	43.6	41.1		33.0	28.1	
Automatic debt dynamics	-4.6	-8.1	-4.8			-1.5	-1.6	-1.6	-1.5	-1.2	-2.1		-1.1	-0.7	
Contribution from interest rate/growth differential	-4.4	-6.9	-3.5			-0.7	-0.9	-0.9	-1.0	-0.9	-1.8		-0.9	-0.7	
Of which: contribution from average real interest rate	-1.0	-1.4	-0.9			-0.5	-0.2	-0.3	-0.4	-0.4	-0.3		-0.3	0.0	
Of which: contribution from real GDP growth	-3.4	-5.5	-2.6			-0.1	-0.6	-0.6	-0.7	-0.5	-1.6		-0.7	-0.7	
Contribution from real exchange rate depreciation	-0.2	-1.2	-1.3			-0.9	-0.7	-0.7	-0.5	-0.3	-0.2		-0.2	0.0	
Other identified debt-creating flows	-0.3	-0.2	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.2	0.0	0.0			-0.4	-0.2	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities 2/	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)	-0.1	-0.2	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	11.6	-7.1	-1.3			-2.5	-0.4	-0.5	-0.7	-0.6	-0.5		0.0	0.0	
Other Sustainability Indicators															
PV of public sector debt	...	35.1	27.3			23.5	20.7	18.5	16.7	15.2	13.1		12.6	17.2	
Of which: foreign-currency denominated	...	22.4	17.3			15.0	13.0	11.6	10.4	9.5	8.3		6.0	5.7	
Of which: external	...	22.4	17.3			15.0	13.0	11.6	10.4	9.5	8.3		6.0	5.7	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 3/	-0.1	2.6	1.1			2.9	1.1	2.1	2.4	2.5	2.4		3.6	6.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	69.9	55.9			46.4	39.9	37.9	36.4	35.1	32.4		39.5	63.5	
PV of public sector debt-to-revenue ratio (in percent)	...	130.7	99.5			85.2	76.6	71.3	64.7	60.3	52.2		49.4	67.1	
Of which: external 4/	...	83.6	63.1			54.3	48.1	44.5	40.5	37.8	33.0		23.5	22.3	
Debt service-to-revenue and grants ratio (in percent) 5/	3.6	6.7	6.5			5.2	4.0	3.9	4.2	4.5	4.4		7.6	19.9	
Debt service-to-revenue ratio (in percent) 5/	7.2	12.4	11.7			9.6	7.7	7.3	7.5	7.7	7.1		9.5	21.0	
Primary deficit that stabilizes the debt-to-GDP ratio	-6.7	15.4	6.1			4.4	2.1	2.1	2.2	1.8	2.6		1.1	0.7	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	6.9	10.7	6.9	1.0	7.6	0.4	2.4	2.7	3.1	2.7	9.1	3.4	4.4	3.6	3.8
Average nominal interest rate on forex debt (in percent)	0.8	2.1	2.9	1.2	0.6	1.3	1.3	1.3	1.2	1.2	1.1	1.2	0.9	1.1	1.0
Average real interest rate on forex debt (in percent)	-2.3	-0.6	0.7	-1.3	0.9	0.4	0.9	0.7	-0.2	-0.8	-0.8	0.0	-1.0	-0.8	-1.4
Real exchange rate depreciation (in percent, + indicates depreciation)	-0.5	-4.0	-5.0	1.3	10.3	...	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.3	7.6	12.3	7.8	2.5	8.6	7.5	8.2	7.9	7.5	6.9	7.8	6.8	5.1	6.3
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.2	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	...	52.2	52.2	52.2	52.2	...	52.2	40.9	44.7

Source: Solomon Islands authorities; and IMF staff estimates and projections

1/ The public sector covers only the central government.

2/ Current estimate of recognized contingent liabilities.

3/ 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.

4/ Revenues excluding grants.

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

6/ Historical averages and standard deviations are derived over the past 10 years.