INTERNATIONAL MONETARY FUND

SOLOMON ISLANDS

Joint IMF/World Bank Debt Sustainability Analysis[1]

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Solomon Islands continues to face a moderate risk of external debt distress according to this debt sustainability analysis. The debt profile is sensitive to adverse shocks to non-debt-creating flows and financing terms. Containing the risk of debt distress will require continued efforts to rebuild fiscal buffers, strengthen the budgetary process to improve fiscal discipline and the quality of spending, and implement structural reforms that are essential for promoting broad-based growth. Debt management will need to be strengthened in light of the resumption of external borrowing.

I. BACKGROUND

1. **Solomon Islands is a small commodity exporter heavily reliant on imports, foreign aid, and foreign direct investment–and vulnerable to external shocks.** The country's export and production bases are narrow and include mainly logs, more recently gold, and a few agricultural products. The country is thus vulnerable to both external demand and commodity price volatility. It also relies heavily on foreign aid and FDI to finance its structural trade deficit and large development needs.

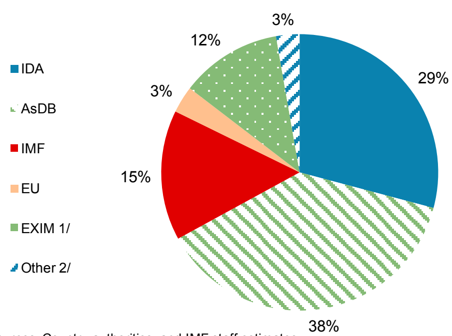
2. **Macroeconomic conditions have improved over the last two years but the fiscal position has weakened recently.** After rebounding from the 2009 recession, economic growth in Solomon Islands has moderated from the rapid pace of 2010–11. Logging has surprised on the upside so far in 2012, but gold production is somewhat lower than initially projected. The fiscal position has weakened in the first three quarters of 2012 relative to the

[1] This DSA was produced in consultation with the Asian Development Bank (AsDB). It is based on the common standard LIC DSA framework. Under the Country Policy and Institutional Assessment (CPIA), Solomon Islands is rated a weak performer, and the DSA uses the indicative threshold indicators on the external public debt for countries in this category: 30 percent for the present value (PV) of the debt-to-GDP ratio; 100 percent for the PV of the debt-to-export ratio; 200 percent for the PV of the debt-to-revenue ratio; 15 percent for the debt-service-to-exports ratio; and 18 percent for the debt-service-to-revenue ratio. In Solomon Islands, the fiscal year begins on January 1. This DSA covers central government debt, and includes a discussion of contingent liabilities associated with debts of state-owned enterprises.

strengthening in 2011. The weakening fiscal position reflects revenue shortfalls relative to the 2012 budget and higher recurrent spending associated with the recent Festival of Pacific Arts, as well as higher spending on tertiary education and utility bills.

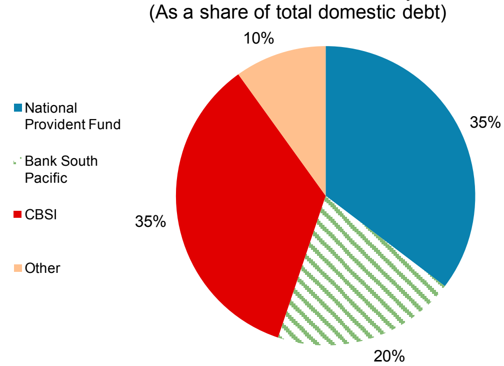
3. **Nonetheless, fiscal buffers have been rebuilt.** Total public debt fell to about 22 percent of GDP at the end of 2011 from some 60 percent in 2005 under the framework of the Honiara Club Agreement (HCA).[2,3] At the end of 2011, domestic public debt, including the contingent liabilities associated with the debt of state-owned enterprises (SOEs)—which amounted to 1½ percent of GDP—was about 6¾ percent of GDP, approximately one third of total public debt; it was owed mainly to the banking sector (including the Central Bank of Solomon Islands) and the National Provident Fund. Total external debt has declined to about 25 percent of GDP as of end-2011 from some 50 percent of GDP in 2005, with public and publicly-guaranteed (PPG) external debt accounting for about 15 percent of GDP. The composition of the external PPG debt and of the domestic debt by creditor is reported in the text charts.

Solomon Islands: External Public and Publicly Guaranteed (PPG) Debt by Creditor (as a share of total external PPG debt)



Sources: Country authorities; and IMF staff estimates.
1/ Taiwan Province of China.
2/ Includes Kuwait, IFAD, and International Cooperation Development Fund-Tawain Province of China.

Solomon Islands: Domestic Debt by Creditor (As a share of total domestic debt)



Sources: Country authorities; and IMF staff estimates.

4. **The cabinet endorsed the Debt Management Strategy (DMS) in May, providing a framework to anchor borrowing plans going forward**. The HCA was amended in July to allow external borrowing to resume. Under the DMS, the government will set a yearly borrowing limit[4] once the results of the DSA exercise prepared by the Debt Unit at the Ministry of Finance and Treasury (MOFT) become available. Setting the debt limit will be part of the budgetary process. The debt limit will cover external borrowing by the

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[2] At the central government level only.

[3] External borrowing has been restricted since 2005 under the Honiara Club Agreement (HCA) signed by the government and its major creditors. Under this agreement, Solomon Islands could not borrow from official external lenders until it received a "green light" rating from the World Bank's International Development Association.

[4] For 2012, the limit was set at SI$150 million (2 percent of GDP). This is broadly in line with staff assumptions. So far in 2012, only one SOE (Solomon Airlines) contracted domestic debt of SI$32 million. No additional borrowing is expected until the end of this year.

government and all forms of SOE borrowing and guarantees (both domestic and external). The government is expected to resume access to external concessional financing in 2013 (Box 1).

5. **The assumptions and results behind the current DSA are broadly in line with the 2011 DSA (Box 1)**. While the 2011 outturn and the 2012 projections are more favorable than envisioned in November 2011, growth projections for the medium and long term have been reduced given the uncertain global outlook (for the medium term from an average of 5.1 percent to 4 percent; for long term from 3.6 percent to 3 percent). While logging production is expected to decline at a lower rate in the medium term than the one assumed in the 2011 DSA (7 percent decline relative to 20 percent decline each year), gold production is forecast to be some 20 percent lower than in 2011 DSA. Aid flows have been lowered by1 percent in medium and long term, and FDI inflows are two percent lower. This is compensated by a more favorable path of the current account and primary balances. In 2011, the current account deficit and the primary government surplus surprised on the upside, owing to higher-than-expected commodity prices and revisions in historical data on service imports. Over the medium term, the current account is expected to improve relative to the 2011 DSA by 2-3 percentage points, mainly reflecting higher-than-expected logging estimates attributable to a slower rate of depletion of forest stocks. Primary surplus has been revised down by 1 percent for the medium term, while the long-term deficit improved by 0.8 percentage point. Debt levels are expected to decline over the medium term under the baseline scenario, despite the resumption of external borrowing, owing to lower-than-expected new borrowing during 2012-14. This DSA envisages a more conservative borrowing path (1½ percent of GDP annually) over the next five year, consistent with the prudent borrowing policy, relative to the 2 ½ percent of GDP annually in the 2011 DSA. As a result, the debt rating remains unchanged.

6. **Looking forward, Solomon Islands will need to maintain fiscal buffers, exercise caution in borrowing, and diversify the sources of growth.** Despite the projected decline of log production over the medium term and the weakening global outlook, the country has relatively favorable medium- and long-term prospects. Similar to the DSA issued in November 2011, this DSA also envisages a still favorable outlook. The favorable prospects depend on a healthy fiscal balance and strong aid inflows from donors; cautious external borrowing to finance much-needed infrastructure; and the expectation that the Gold Ridge mine will contribute an average of about 35 percent of export earnings over the next decade.

II. External and Public Debt Sustainability Analysis

A. External Debt Sustainability Analysis

7. **The external DSA indicates that Solomon Islands faces a moderate risk of debt distress.** Under the baseline scenario (Table 1a), total external debt is projected to decline to about 22 percent of GDP in 2012, and further next year, with foreign aid and FDI expected to finance most of the trade and services deficit. Further declines in 2013–15 would result from scheduled repayment of external debt more than offsetting new external borrowing. Total

Box 1. Macroeconomic Assumptions under the Baseline Scenario

- **GDP growth.** After rebounding from the 2009 recession to achieve 8 percent growth in 2010, and nearly 11 percent in 2011, growth is expected to slow to a still-strong 5½ percent this year. Growth is projected to moderate to 4 percent over the near and medium term, with gold production, together with services, remaining the main driver of expansion and logging activity declining over the medium term—consistent with the projections of the Ministry of Finance and Treasury (MOFT). Over the longer term, growth is expected to fall further to 3 percent, reflecting the impact of the closing of the Gold Ridge mine more than offsetting the positive impact of expanding service sectors. Population is projected to grow by 2.2 percent annually over the medium to long term.
- **Logging and mining.** After peaking in 2011, log production is expected to decline by about 7 percent each year until 2018 after which it will remain stable. Consistent with MOFT projections, gold output is projected at 80,000 ounces in 2012 and 95,000 ounces during 2013–20. It will then gradually wind down by 2023.
- **Aid flows and FDI**. Aid flows continued to be strong in 2012, led by large grant disbursements catalyzed by the SCF-supported program. After peaking in 2010 at 25 percent of GDP, aid flows are expected to average about 20 percent over the medium term and to decline gradually to their historic average of about 12 percent by 2031. This reflects the gradual scaling-down of the operations of the Regional Assistance Mission to Solomon Islands (RAMSI), and the economy becoming less reliant on aid. As the Gold Ridge mine is now operational, FDI is projected to decrease from its peak of 35 percent of GDP in 2010 to about 8 percent over the medium term. It will then stabilize at about 5 percent over the longer term, with the resumption in external borrowing making up the difference in financing the current account deficit.
- **External borrowing.** With the revision in the Honiara Club Agreement (HCA), the government is expected to resume access to external concessional financing. New loan disbursements are expected to begin in 2013, with an initial disbursement from the AsDB of US$4.2 million in 2013 and a second disbursement of US$7.3 million in 2014—to finance the undersea fiber optic cable. The private sector is expected to borrow an additional US$13 million in 2013 from the Private Sector Operations Department of the AsDB to finance the cable. Concessional borrowing is projected to average about 1½ percent of GDP annually over the next five years and about 2½ percent over the longer term.
- **Fiscal outlook.** The primary balance is expected to generate a surplus averaging about 1 percent of GDP over the medium term, driven by mining and log revenues. Over the longer term, however, the balance is expected to shift into a deficit of about ½ percent of GDP. This shift is attributable to the projected fall in grants, and logging and mining revenues while additional external borrowing will partially replace grant-funded development expenditure. Revenue (excluding grants) is forecast at about 30 percent of GDP over the longer term, reflecting continued efforts to increase the non-commodity tax base and to strengthen tax administration and enforcement.
- **The non-interest current account deficit** is projected to be about 5 percent of GDP in 2012, and to widen to about 9 percent in the next two years, owing mainly to the drop in log exports more than offsetting the rise in gold exports. The shortfall is likely to stay at this level over the medium and long term, because reduced repatriation of gold mine profits (in the income balance) and fuel imports (a major input of gold production), together with a more diversified exports base would roughly offset the decline in gold exports.

external debt is projected to gradually increase starting in 2016, reaching just over 30 percent of GDP over the longer term. Similarly, PPG external debt is projected to fall to 13 percent in 2012 and to rise moderately to about 26 percent of GDP over the longer term. Other key indicators of sustainability—the present value (PV) of PPG external debt, the ratio of PPG debt service to exports and the ratio of PPG debt service to revenue—all remain well below the indicative thresholds (Figure 1).[5]

8. **Sensitivity analysis suggests that Solomon Islands' debt path is vulnerable to several shocks, in particular, a shock to net non-debt-creating flows (Table 1b, and Figure 1).** A shock to non-debt-creating flows is defined as a lower share of net current transfers and net FDI of GDP in 2013–14 at one standard deviation less than the historical average.[6] Such a shock would keep the PV of PPG external-debt-to-GDP ratio above the threshold for 19 years before it begins to decline. The PV of PPG external debt to exports would also breach the threshold during the years approximating the scheduled closure of the Gold Ridge mine. Debt-service-to-revenue/exports ratios would jump around 2022–23 as the grace period of new borrowing is 8 years.

9. **A permanent shock to financing terms would also lead to a breach of thresholds (Table 1b).** A permanent shock to financing terms is defined as an interest rate that is 2 percentage points higher during 2012–32 than in the baseline scenario. Such a shock would keep the PV of PPG external-debt-to-export ratio above the threshold starting from 2032. A shock to nominal export growth no longer causes a breach of thresholds, as it did in the 2011 DSA. The change in the historical reference period results in the historical (10-year) average of growth of exports of 24.5 percent and the standard deviation of the growth of exports of 22.3 percent, implying a growth rate of 2 percent in 2013–14 under the stress test, compared with a contraction of 10 percent in the 2011 DSA**.**

B. Public Debt Sustainability Analysis

10. **Public debt analysis paints a similar picture.** In addition to PPG external debt, public debt includes the central government's contingent liabilities of 1½ percent of GDP, of which 1 percent of GDP represents guaranteed loans for SOEs as of end-2011. Under the baseline scenario (Table 2a), the PV of total public debt will decline further to about 12 percent of GDP over the medium term. Over the longer term, it is projected to increase to about 22 percent, driven by external borrowing after the completion of the HCA review.

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[5] The negative residuals in Table 1a reflect the fact that part of the current account deficit is being financed through the aid in kind for capital projects from donors. These inflows are reflected in capital account but are not captured in the identified net debt-creating flows, which only correct for FDI inflows. The positive residuals in Table 2a reflect the assumption that the large mineral revenue expected in coming years will be saved in a special fund to support health, education, and infrastructure.

[6] The historical (10-year) averages of foreign aid and FDI are 13½ percent GDP and 12 percent of GDP, respectively, while the standard deviations of these flows are 9.9 percent GDP and 12.6 percent of GDP, respectively. The template does not capture the decline in imports that the shock may induce.

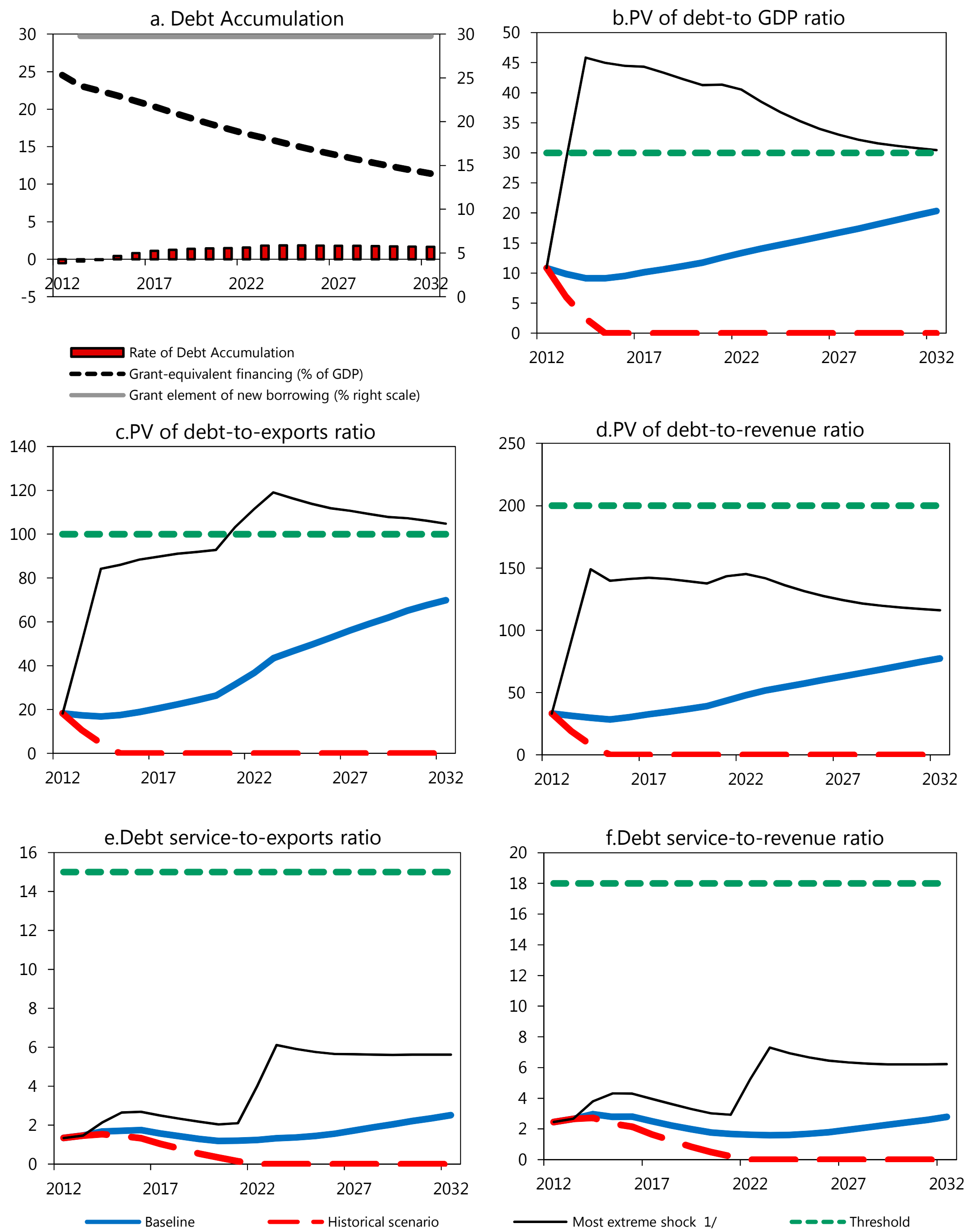
Public debt sustainability is vulnerable to shocks as well. Under the most extreme stress test scenario—permanently lower real GDP growth—the PV of debt reaches about 30 percent of GDP by 2022 and surges to more than 70 percent of GDP by 2032 (Table 2b and Figure 2).

III. POLICY IMPLICATIONS AND CONCLUSIONS

11. **With Solomon Islands facing moderate risk of debt distress, it must maintain public and external debt at sustainable levels with actions on multiple fronts**. First, efforts to rebuild fiscal buffers and create fiscal space will need to continue, especially in light of the uncertainties surrounding the external environment. Second, an acceleration of structural reforms (such as a new resource tax regime and new mining legislation) will help maximize the spillovers from the commodity sectors to non-commodity sectors, boost investors' confidence, and promote sustainable growth. These reforms would also help strengthen the outlook for exports, thereby reducing the vulnerability to external shocks. Third, strengthening and deepening ongoing reforms in both budget formulation and execution, including greater attention to the medium-term fiscal consequences of current policy choices will improve fiscal discipline and the quality of spending. And, finally caution would need to be exercised in contracting new borrowing, especially by the SOEs.

12. **The authorities have broadly agreed with this assessment**. They are fully committed to strengthening the fiscal framework and public management by continuing to reform the Public Finance Act (PFA) and implementing a multi-year budget framework. Supported by the low-access ECF, they will also implement a new resource taxation regime to ensure that the government receives its fair share of mining revenue and will reform the mining legislation to provide a predictable investment regime to attract foreign investment. The authorities will strengthen debt management capacity by developing instructions for SOE borrowing and by including them in the DMS; identifying the outstanding debt of SOEs; developing an on-lending policy framework; and designing a framework to estimate the cost of guarantees.

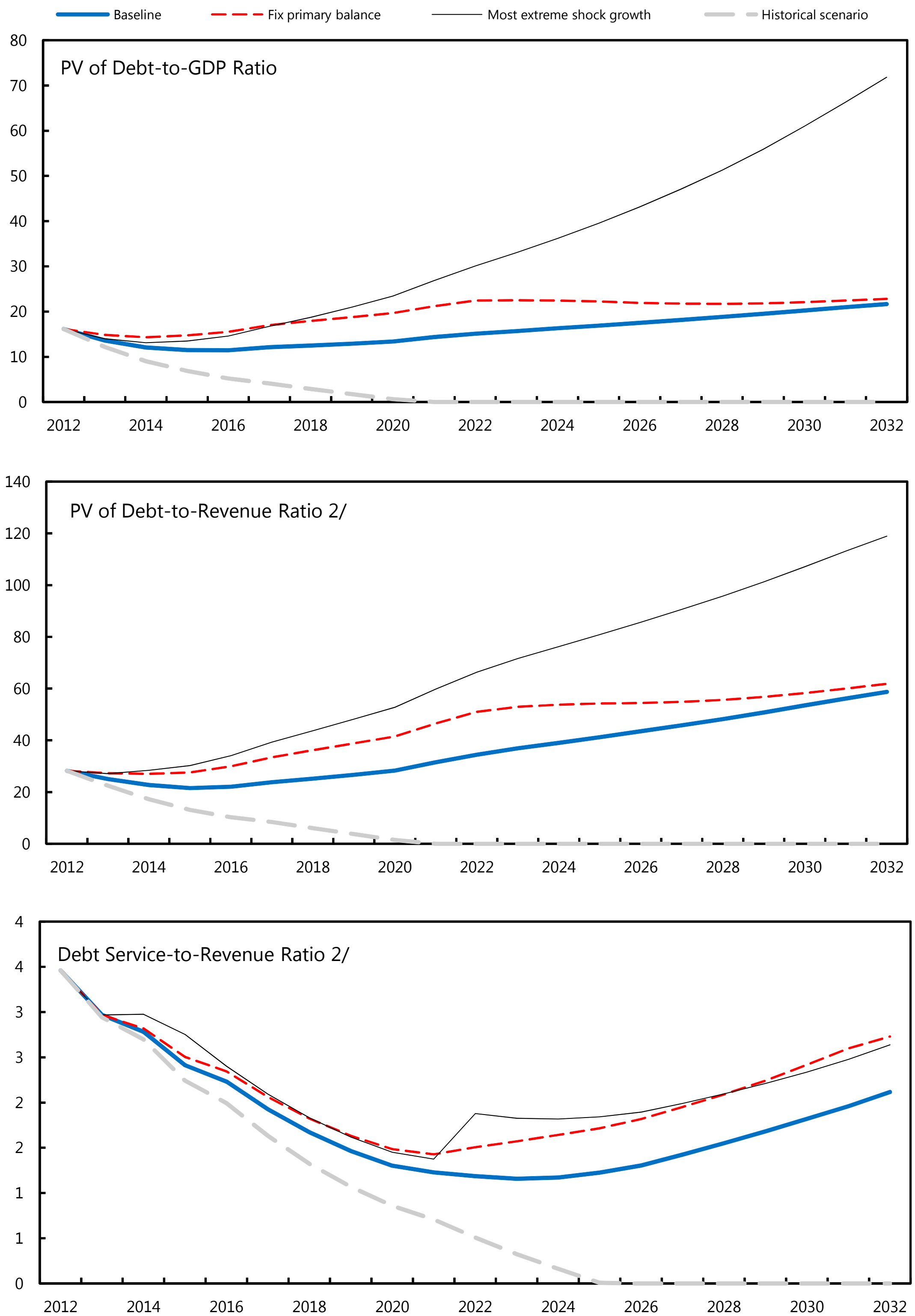
Figure 1. Solomon Islands: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2012-32 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2022. In all figures, it corresponds to a non-debt flows shock.

Figure 2. Solomon Islands: Indicators of Public Debt Under Alternative Scenarios, 2012-32 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2022.

2/ Revenues are defined inclusive of grants.

Table 1a.: External Debt Sustainability Framework, Baseline Scenario, 2009-2032 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical [6/] Average	Standard [6/] Deviation	Projections									
	2009	2010	2011			2012	2013	2014	2015	2016	2017	2012-2017 Average	2022	2032	2018-2032 Average
External debt (nominal) 1/	**32.4**	**31.9**	**25.1**			**21.7**	**21.3**	**20.0**	**19.7**	**19.9**	**20.5**		**23.3**	**30.2**	
of which: public and publicly guaranteed (PPG)	23.2	19.8	15.2			12.9	11.7	11.0	11.2	11.9	13.0		17.7	26.5	
private	9.2	12.2	9.9			8.8	9.6	9.0	8.5	8.0	7.5		5.7	3.7	
Change in external debt	0.3	-0.5	-6.8			-3.4	-0.4	-1.3	-0.3	0.2	0.6		0.8	0.7	
Identified net debt-creating flows	2.5	-7.7	-30.6			-7.0	1.3	0.2	1.0	2.0	1.8		4.6	3.4	
Non-interest current account deficit	**20.7**	**30.2**	**5.4**	**8.2**	**14.1**	**5.2**	**10.0**	**8.2**	**9.0**	**9.3**	**9.3**		**9.3**	**9.3**	8.8
Deficit in balance of goods and services	18.3	31.9	5.5			6.5	12.4	9.2	11.1	13.8	15.5		19.2	18.9	
Exports	39.3	48.4	64.1			59.6	56.9	54.4	52.3	50.3	49.4		36.4	29.1	
Imports	57.6	80.3	69.5			66.1	69.3	63.6	63.4	64.1	64.9		55.6	48.0	
Net current transfers (negative = inflow)	-24.5	-26.5	-19.9	-13.5	9.9	-22.7	-21.5	-21.0	-20.3	-19.7	-19.1		-16.3	-12.2	-15.0
of which: official	-20.3	-24.8	-18.9			-21.7	-19.6	-18.9	-18.2	-17.5	-16.8		-13.7	-9.1	
Other current account flows (negative = net inflow)	27.0	24.8	19.8			21.4	19.2	19.9	18.2	15.2	12.8		6.4	2.5	
Net FDI (negative = inflow)	**-19.5**	**-34.6**	**-29.7**	**-11.9**	**12.6**	**-11.5**	**-8.5**	**-7.8**	**-7.8**	**-7.2**	**-7.3**		**-4.6**	**-5.4**	-5.4
Endogenous debt dynamics 2/	**1.3**	**-3.3**	**-6.2**			**-0.6**	**-0.3**	**-0.2**	**-0.2**	**-0.1**	**-0.2**		**0.0**	**-0.4**	
Contribution from nominal interest rate	0.8	0.7	0.7			0.6	0.5	0.6	0.5	0.5	0.5		0.4	0.4	
Contribution from real GDP growth	1.5	-2.2	-2.7			-1.2	-0.8	-0.8	-0.7	-0.7	-0.7		-0.4	-0.9	
Contribution from price and exchange rate changes	-1.0	-1.8	-4.2			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-2.2**	**7.2**	**23.7**			**3.6**	**-1.7**	**-1.4**	**-1.4**	**-1.8**	**-1.2**		**-3.8**	**-2.7**	
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/	...	...	22.6			19.7	19.4	18.2	17.6	17.5	17.6		19.0	24.0	
In percent of exports	...	...	35.2			33.0	34.2	33.5	33.8	34.7	35.7		52.3	82.5	
PV of PPG external debt	**...**	**...**	**12.7**			**10.9**	**9.9**	**9.2**	**9.2**	**9.5**	**10.1**		**13.4**	**20.3**	
In percent of exports	**...**	**...**	**19.8**			**18.2**	**17.4**	**16.9**	**17.5**	**18.9**	**20.5**		**36.7**	**69.9**	
In percent of government revenues	**...**	**...**	**38.3**			**33.2**	**31.4**	**29.8**	**28.4**	**30.2**	**32.5**		**47.9**	**77.4**	
Debt service-to-exports ratio (in percent)	**5.9**	**4.7**	**2.5**			**2.6**	**2.7**	**3.4**	**3.7**	**3.7**	**3.5**		**2.7**	**3.7**	
PPG debt service-to-exports ratio (in percent)	**3.6**	**3.0**	**1.2**			**1.3**	**1.5**	**1.7**	**1.7**	**1.8**	**1.6**		**1.2**	**2.5**	
PPG debt service-to-revenue ratio (in percent)	**4.6**	**4.5**	**2.4**			**2.5**	**2.7**	**3.0**	**2.8**	**2.8**	**2.5**		**1.6**	**2.8**	
Total gross financing need (Billions of U.S. dollars)	0.0	0.0	-0.2			0.0	0.0	0.0	0.0	0.1	0.0		0.1	0.2	
Non-interest current account deficit that stabilizes debt ratio	20.4	30.7	12.2			8.6	10.5	9.4	9.4	9.1	8.7		8.5	8.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	-4.7	7.8	10.7	5.6	5.5	5.5	4.0	3.8	3.7	3.6	3.6	4.0	2.0	3.1	3.0
GDP deflator in US dollar terms (change in percent)	3.2	5.8	15.1	3.3	8.2	10.2	4.5	2.4	1.2	1.4	1.3	3.5	4.0	1.8	3.5
Effective interest rate (percent) 5/	2.3	2.3	2.6	2.3	0.5	2.6	2.7	2.8	2.9	2.8	2.7	2.7	2.1	1.6	1.9
Growth of exports of G&S (US dollar terms, in percent)	-12.9	40.6	68.5	24.5	22.3	8.1	3.8	1.7	0.8	1.1	3.1	3.1	-3.7	5.1	3.0
Growth of imports of G&S (US dollar terms, in percent)	-15.8	59.2	10.3	22.0	30.8	10.5	14.0	-2.4	4.6	6.2	6.2	6.5	2.5	6.0	4.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	0.0	29.8	29.8	29.8	29.8	29.8	24.8	29.8	29.8	29.8
Government revenues (excluding grants, in percent of GDP)	30.5	32.0	33.1			32.7	31.5	30.8	32.2	31.5	31.2		27.9	26.2	27.6
Aid flows (in Billions of US dollars) 7/	0.3	0.3	0.4			0.2	0.3	0.3	0.3	0.3	0.3		0.3	0.4	
of which: Grants	0.1	0.2	0.2			0.2	0.3	0.3	0.3	0.3	0.3		0.3	0.4	
of which: Concessional loans	0.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			24.5	23.1	22.5	21.8	21.1	20.3		16.7	11.4	15.1
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			100.0	98.9	97.7	95.4	93.8	92.8		91.4	86.7	89.6
Memorandum items:															
Nominal GDP (Billions of US dollars)	0.6	0.7	0.9			1.0	1.1	1.2	1.2	1.3	1.4		1.9	3.6	
Nominal dollar GDP growth	-1.7	14.1	27.4			16.2	8.8	6.3	4.9	5.0	5.0	7.7	6.0	4.9	6.7
PV of PPG external debt (in Billions of US dollars)			0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.2	0.7	
(PVt-PVt-1)/GDPt-1 (in percent)						-0.5	-0.3	-0.1	0.4	0.8	1.1	0.2	1.6	1.7	1.7
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	12.7			10.9	9.9	9.2	9.2	9.5	10.1		13.4	20.3	
PV of PPG external debt (in percent of exports + remittances)	...	...	19.8			18.2	17.4	16.9	17.5	18.9	20.5		36.7	69.9	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	1.2			1.3	1.5	1.7	1.7	1.8	1.6		1.2	2.5	

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

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/ 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 generally derived over the past 10 years, subject to data availability.

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

8/ 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, 2012-2032

(In percent)

	Projections							
	2012	2013	2014	2015	2016	2017	**2022**	2032
PV of debt-to GDP ratio								
Baseline	11	10	9	9	10	10	**13**	20
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2012-2032 1/	11	6	2	0	0	0	**0**	0
A2. New public sector loans on less favorable terms in 2012-2032 2/	11	10	9	10	11	12	**18**	30
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	11	10	10	10	10	11	**14**	22
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	11	10	10	10	10	11	**14**	20
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	11	11	11	11	11	12	**16**	24
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	11	29	46	45	45	44	**41**	30
B5. Combination of B1-B4 using one-half standard deviation shocks	11	19	22	22	22	22	**24**	26
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	11	14	13	13	13	14	**18**	28
PV of debt-to-exports ratio								
Baseline	18	17	17	18	19	21	**37**	70
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2012-2032 1/	18	11	5	0	0	0	**0**	0
A2. New public sector loans on less favorable terms in 2012-2032 2/	18	17	17	18	21	24	**49**	103
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	18	17	17	17	19	20	**36**	69
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	18	18	19	19	21	22	**39**	70
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	18	17	17	17	19	20	**36**	69
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	18	51	84	86	88	90	**111**	105
B5. Combination of B1-B4 using one-half standard deviation shocks	18	29	30	31	32	33	**48**	65
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	18	17	17	17	19	20	**36**	69
PV of debt-to-revenue ratio								
Baseline	33	31	30	28	30	33	**48**	77
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2012-2032 1/	33	19	8	0	0	0	**0**	0
A2. New public sector loans on less favorable terms in 2012-2032 2/	33	31	30	30	34	38	**64**	114
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	33	32	32	30	32	35	**51**	82
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	33	33	33	31	33	35	**50**	77
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	33	34	35	33	35	38	**56**	90
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	33	92	149	140	141	142	**145**	116
B5. Combination of B1-B4 using one-half standard deviation shocks	33	61	72	68	70	72	**84**	98
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	33	43	41	39	42	45	**66**	107

Table 1b.Solomon Islands: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2012-2032 (continued)

(In percent)

Debt service-to-exports ratio

Baseline	1	1	2	2	2	2	**1**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2012-2032 1/	1	1	2	1	1	1	**0**	0
A2. New public sector loans on less favorable terms in 2012-2032 2/	1	1	2	2	2	2	**2**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	1	1	2	2	2	2	**1**	3
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	1	1	2	2	2	2	**1**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	1	1	2	2	2	2	**1**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	1	1	2	3	3	3	**4**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	2	2	2	2	**2**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	1	1	2	2	2	2	**1**	3

Debt service-to-revenue ratio

Baseline	2	3	3	3	3	3	**2**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2012-2032 1/	2	3	3	2	2	2	**0**	0
A2. New public sector loans on less favorable terms in 2012-2032 2/	2	3	3	3	3	3	**3**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	2	3	3	3	3	3	**2**	3
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	2	3	3	3	3	3	**2**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	2	3	4	3	3	3	**2**	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	2	3	4	4	4	4	**5**	6
B5. Combination of B1-B4 using one-half standard deviation shocks	2	3	4	4	4	3	**3**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	2	4	4	4	4	4	**2**	4
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	30	30	30	30	30	30	**30**	30

Sources: Country authorities; and staff estimates and projections.

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.
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/ 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 a
an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ 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 Framework, Baseline Scenario, 2009-2032

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2009	2010	2011	Average 5/	Standard Deviation 5/	2012	2013	2014	2015	2016	2017	2012-17 Average	2022	2032	2018-32 Average
Public sector debt 1/	33.9	28.5	22.2			18.2	15.4	13.9	13.5	13.9	14.9		19.4	27.9	
of which: foreign-currency denominated	23.2	19.8	15.2			12.9	11.7	11.0	11.2	11.9	13.0		17.7	26.5	
Change in public sector debt	-1.6	-5.4	-6.3			-3.9	-2.8	-1.6	-0.3	0.3	1.1		1.0	0.8	
Identified debt-creating flows	-3.3	-10.5	-15.5			-1.7	-2.6	-1.9	-1.6	-1.5	-1.4		-1.5	-0.4	
Primary deficit	-2.3	-6.7	-9.3	-3.2	3.8	0.3	-1.5	-1.1	-1.1	-1.0	-0.9	-0.9	-0.6	0.6	0.4
Revenue and grants	55.2	62.6	60.2			57.3	54.4	53.0	53.5	52.0	50.9		43.9	36.9	
of which: grants	24.7	30.6	27.1			24.5	23.0	22.2	21.3	20.5	19.7		16.0	10.7	
Primary (noninterest) expenditure	52.9	55.9	50.9			57.6	53.0	51.9	52.4	51.0	50.0		43.3	37.6	
Automatic debt dynamics	0.0	-3.8	-6.1			-2.1	-1.1	-0.8	-0.5	-0.5	-0.5		-0.9	-1.0	
Contribution from interest rate/growth differential	1.3	-2.8	-3.3			-1.4	-0.9	-0.7	-0.6	-0.6	-0.6		-0.5	-1.0	
of which: contribution from average real interest rate	-0.5	-0.3	-0.5			-0.3	-0.2	-0.1	-0.1	-0.1	-0.1		-0.1	-0.1	
of which: contribution from real GDP growth	1.8	-2.5	-2.8			-1.2	-0.7	-0.6	-0.5	-0.5	-0.5		-0.4	-0.8	
Contribution from real exchange rate depreciation	-1.3	-1.0	-2.8			-0.6	-0.2	-0.1	0.1	0.0	0.0		...	...	
Other identified debt-creating flows	-0.9	0.0	-0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.9	0.0	-0.1			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	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 (specify, 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	
Residual, including asset changes	1.6	5.1	9.2			-2.2	-0.2	0.3	1.3	1.8	2.5		2.5	1.2	
Other Sustainability Indicators															
PV of public sector debt	...	...	19.7			16.2	13.6	12.1	11.5	11.5	12.1		15.1	21.7	
of which: foreign-currency denominated	...	...	12.7			10.9	9.9	9.2	9.2	9.5	10.1		13.4	20.3	
of which: external	...	...	12.7			10.9	9.9	9.2	9.2	9.5	10.1		13.4	20.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	0.2	-4.1	-7.3			2.8	0.9	1.0	0.8	0.8	0.6		0.4	1.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	32.6			28.2	25.0	22.7	21.5	22.0	23.8		34.4	58.8	
PV of public sector debt-to-revenue ratio (in percent)	...	...	59.4			49.4	43.2	39.2	35.8	36.4	38.9		54.2	82.6	
of which: external 3/	...	...	38.3			33.2	31.4	29.8	28.4	30.2	32.5		47.9	77.4	
Debt service-to-revenue and grants ratio (in percent) 4/	3.8	3.2	2.4			3.5	3.0	2.8	2.4	2.2	1.9		1.2	2.1	
Debt service-to-revenue ratio (in percent) 4/	6.9	6.3	4.3			6.1	5.1	4.8	4.0	3.7	3.1		1.9	3.0	
Primary deficit that stabilizes the debt-to-GDP ratio	-0.7	-1.3	-3.0			4.3	1.3	0.5	-0.8	-1.3	-1.9		-1.7	-0.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-4.7	7.8	10.7	5.6	5.5	5.5	4.0	3.8	3.7	3.6	3.6	4.0	2.0	3.1	3.0
Average nominal interest rate on forex debt (in percent)	1.3	1.2	1.1	1.4	0.6	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.1
Average real interest rate on domestic debt (in percent)	-5.0	-3.9	-6.9	-4.1	2.6	-3.7	-3.1	-2.3	-1.2	-1.6	-1.7	-2.3	-4.1	-0.9	-3.2
Real exchange rate depreciation (in percent, + indicates depreciation)	-5.2	-4.7	-15.4	-1.4	9.3	-4.5	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	7.3	5.9	9.1	6.9	3.3	6.0	6.1	5.5	4.2	4.5	4.4	5.1	7.1	4.8	6.6
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.1	0.0	0.2	0.2	0.2	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)	...	...	...	...	...	0.0	29.8	29.8	29.8	29.8	29.8	24.8	29.8	29.8	...

Sources: Country authorities; and staff estimates and projections.

1/ Gross debt of central government and SOEs.

2/ 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.

3/ Revenues excluding grants.

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

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 2b.Solomon Islands: Sensitivity Analysis for Key Indicators of Public Debt 2012-2032

	Projections							
	2012	2013	2014	2015	2016	2017	2022	2032
PV of Debt-to-GDP Ratio								
Baseline	16	14	12	12	11	12	15	22
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	16	12	9	7	5	4	0	0
A2. Primary balance is unchanged from 2012	16	15	14	15	16	17	22	23
A3. Permanently lower GDP growth 1/	16	14	13	13	15	17	30	72
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	16	15	16	17	18	21	30	45
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	16	15	15	14	14	15	17	23
B3. Combination of B1-B2 using one half standard deviation shocks	16	14	12	12	13	14	19	28
B4. One-time 30 percent real depreciation in 2013	16	18	16	15	15	15	17	23
B5. 10 percent of GDP increase in other debt-creating flows in 2013	16	21	19	18	18	18	20	25
PV of Debt-to-Revenue Ratio 2/								
Baseline	28	25	23	21	22	24	34	59
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	28	22	17	13	10	8	0	0
A2. Primary balance is unchanged from 2012	28	27	27	28	30	33	51	62
A3. Permanently lower GDP growth 1/	28	26	24	25	28	32	66	181
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	28	27	28	30	34	39	66	119
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	28	28	28	26	27	29	39	62
B3. Combination of B1-B2 using one half standard deviation shocks	28	25	23	23	24	27	42	74
B4. One-time 30 percent real depreciation in 2013	28	33	31	29	29	30	39	63
B5. 10 percent of GDP increase in other debt-creating flows in 2013	28	38	36	34	35	36	46	67
Debt Service-to-Revenue Ratio 2/								
Baseline	3	3	3	2	2	2	1	2
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	3	3	3	2	2	2	1	0
A2. Primary balance is unchanged from 2012	3	3	3	3	2	2	2	3
A3. Permanently lower GDP growth 1/	3	3	3	2	2	2	2	5
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	3	3	3	3	2	2	2	4
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	3	3	3	3	2	2	1	2
B3. Combination of B1-B2 using one half standard deviation shocks	3	3	3	2	2	2	1	3
B4. One-time 30 percent real depreciation in 2013	3	3	4	3	3	3	2	3
B5. 10 percent of GDP increase in other debt-creating flows in 2013	3	3	3	3	2	2	2	3

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.