INTERNATIONAL MONETARY FUND

KIRIBATI

STAFF REPORT FOR THE 2013 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS[1]

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Kiribati continues to be at high risk of debt distress according to this update of the debt sustainability analysis (DSA). Containing the risk of debt distress will require prudent financing by continuing to secure grants to support the country's large development needs, and implementing fiscal and structural reform agenda that would ensure fiscal sustainability and raise long-term growth.

Background

Kiribati is a remote Pacific microstate. The export and production bases are narrow and limited to copra, seaweed and fishing. The revenue base is very volatile, with fishing license fees making up about 50 percent of government revenues. Kiribati's sovereign wealth fund—Revenue Equalization Reserve Fund (RERF) is a major source of financing and a cushion against risks. Climate change and pressures on infrastructure raise additional challenges. The country relies heavily on foreign aid to finance large development.

The fiscal position has deteriorated in recent years and the per capita value of Kiribati's wealth fund has declined substantially. Large overall fiscal deficits over the last decade (about 16 percent of GDP on average) have resulted in substantial drawdowns of the RERF—the main source of deficit financing.[2] The RERF assets dropped to A$570 million or 340 percent of GDP in 2012 from A$658 million or 565 percent of GDP in 2000.

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[1] The DSA has been produced in consultation with the Asian Development Bank (AsDB). This DSA is based on the common standard LIC DSA framework. Under the Country Policy and Institutional Assessment (CPIA), Kiribati is rated as 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 debt-to-GDP ratio; 100 percent for the PV of debt-to exports ratio; 200 percent for the PV of debt-to-revenue ratio; 15 percent for the debt service-to-exports ratio; and 18 percent for the debt service-to-revenue ratio.

[2] The RERF is a wealth fund established in 1956 and was capitalized using phosphate mining proceeds before phosphate deposits were exhausted in 1979.

As of end-2012, domestic debt accounted for 3⅔ percent of GDP, while gross external debt is estimated at about 8 percent of GDP. Domestic debt includes the publicly guaranteed debt of the state-owned enterprises (SOEs). As of end-2012, all external public debt consisted of concessional loans.

The medium-term macroeconomic outlook points to moderate growth. The economy is estimated to have grown by about 2.8 percent in 2012. Going forward, donor-financed road and airport projects are expected to boost construction and support growth over the medium term. Based on the government intentions under donor-supported reform program, fiscal deficit is expected to narrow. Kiribati continues to be vulnerable to external shocks from volatile fishing license revenues, and from financial exposure of its sovereign wealth fund and pension fund.

The Baseline Scenario

Under the baseline scenario, fiscal deficit is projected to improve in the medium and longer term. (The macroeconomic assumptions underlying the baseline scenario are presented in Box 1.) The overall fiscal deficit is projected to be about 10⅓ percent of GDP by 2030, down from around 21 percent in 2013. It is assumed that the deficit is partly financed by the assumed about US$7–$10 million of external loans each year in the medium term, and about US$10 million each year in the longer term to finance large infrastructure and other development needs, as well as to address adverse impact of climate change. The remaining financing gap is met through drawdowns of the RERF, without additional domestic borrowing. Annual drawdown from the RERF is projected to be 10⅓ of GDP on average in the medium term and 8⅔ percent of GDP on average during 2019–33. As a result, the RERF real per capita balance continues to decline.

External Debt Sustainability Analysis

The external DSA indicates Kiribati is at high risk of debt distress, in line with the conclusion of the previous DSA from the 2011 Article IV consultation. The PV of external debt will witness a large increase due to loan disbursements. There is a sizable and protracted breach of the PV of debt-to-exports ratio threshold and of the PV of the debt to GDP ratio around 2025. The PV of external debt will increase from 8½ percent of GDP in 2013 to 30 percent of GDP in 2025, and reach over 100 percent of exports starting from 2025.

Stress tests indicate that the country's debt path is vulnerable to shocks to financing terms and to exports. The present value (PV) of debt to export ratio and the PV of debt to GDP ratio thresholds are breached under the extreme stress test scenario, including a scenario which assumes the interest rate on new borrowing is 200 basis points higher than in the baseline.[3]

[3] As a measure of sustainability, fishing license fees are included in export ratio.

Box 1: Macroeconomic Assumptions Under the Baseline Scenario

- GDP growth and population. The economy is expected to grow at 2.8 percent in 2012 and about 2 percent in the medium term, driven by donor-financed projects, fishing license revenues and remittances. Over the long term, growth will moderate to 1.8 percent. Population is projected to grow at 1.7 percent per year.

- Aid flows in form of grants are expected to be around 33½ percent of GDP over the medium term and to decline to about 29 percent in the longer term, assuming that the government's implementation of reforms encourages continuing support from the main donors (AusAID, New Zealand AID, Japan, and Taiwan Province of China). Access to the IDA-type grant, financing is assumed to be US$10 million per year during 2013–15 to finance large infrastructure projects, including road rehabilitation, airport improvement, and others.

- New external loan disbursements are assumed to average about 3½ percent of GDP over the medium and long term. Government is expected to access IDA-type financing of US$8 million in 2016, increasing to US$10 million annually from 2017. These loans and other investments will be needed to support large development needs in infrastructure, health and education, as well as to adapt to adverse impact in private change.

- FDI flows experience a substantial increase in 2013 because of expected additional investments in fishing joint venture. Thereafter they continue at positive level of about ½ percent of GDP per year reflecting additional investment in fishing and marine sectors as a result of the reforms.

- The overall fiscal deficit will be reduced gradually to around 14 percent of GDP by 2018, under the government commitment to reforms. The RERF drawdowns would be reduced correspondingly. Nevertheless, the RERF per capita value in real terms would not stabilize and will decline substantially by 2033 compared to the level of 2011. (The nominal rate of annual return on RERF is assumed at 5⅓ percent in the long term.)

- The current account deficit will narrow in the medium term, reflecting decrease in the fiscal deficit. The trade deficit follows similar trend.

Public Debt Sustainability Analysis

Public debt analysis paints a similar picture. Under the baseline scenario, the PV of total public debt is projected to increase to above 30 percent of GDP by 2023, driven mainly by external borrowings. Public debt sustainability is vulnerable to shocks as well. Under the most extreme stress test scenario—real GDP growth being one standard deviation, temporarily lower in the next two years—the PV of debt reaches about 33 percent of GDP by 2023 and 58 percent of GDP by 2033.

The Stronger Reform Scenario

The stronger reform scenario envisages additional fiscal consolidation and improvements in business prospects that would lead to eventual stabilization of the RERF and reduction of the debt vulnerabilities. The RERF under this scenario stabilizes at a level of slightly below A$4000 and the debt distress level could be reduced to low as a result of the improved macro-fiscal situation and more favorable composition of financing.

This scenario illustrates that such an outcome would not be easy to achieve as the underlying assumptions demonstrate. The population growth and the nominal rate of annual return on RERF are as under the baseline scenario. Reflecting the outcomes of reforms, the GDP growth is assumed to be about 2.1–2.3 percent in the long term, compared to 1.8 percent under the baseline scenario. The population growth and the nominal rate of annual return on RERF are as under the baseline scenario. Fishing license revenues are also assumed to improve somewhat through better pricing mechanisms.

This scenario shows that stabilizing RERF and achieving higher growth is a difficult task. Tax revenue would be higher—21 percent on average in the long term due to improvement in tax administration, compared to around 19 percent under the baseline. Fishing license revenues are also assumed to improve somewhat through better pricing mechanisms. Current expenditure would also need to be reduced from about 50 percent of GDP in 2018 to about 44 percent of GDP in 2030 through a combination of adjustment in wages and salaries, subsidies, and other current expenditures. Stronger reforms and improving business prospects would be needed to ensure higher grants, higher FDI, higher remittances due to expanded opportunities to work. In total, these flows are more than 8 percent of GDP higher compared with the baseline scenario, offsetting the impact of fiscal consolidation..

A greater proportion of Kiribati's development financing needs is projected to be met by grants rather than loans. Over the long term, external grants are assumed to be about 35 percent of GDP each year compared to 30 percent in the baseline scenario. The external loan financing is envisaged to be about US$2½ million each year compared to US$10 million in the baseline scenario. There would be no new domestic borrowing after 2013.

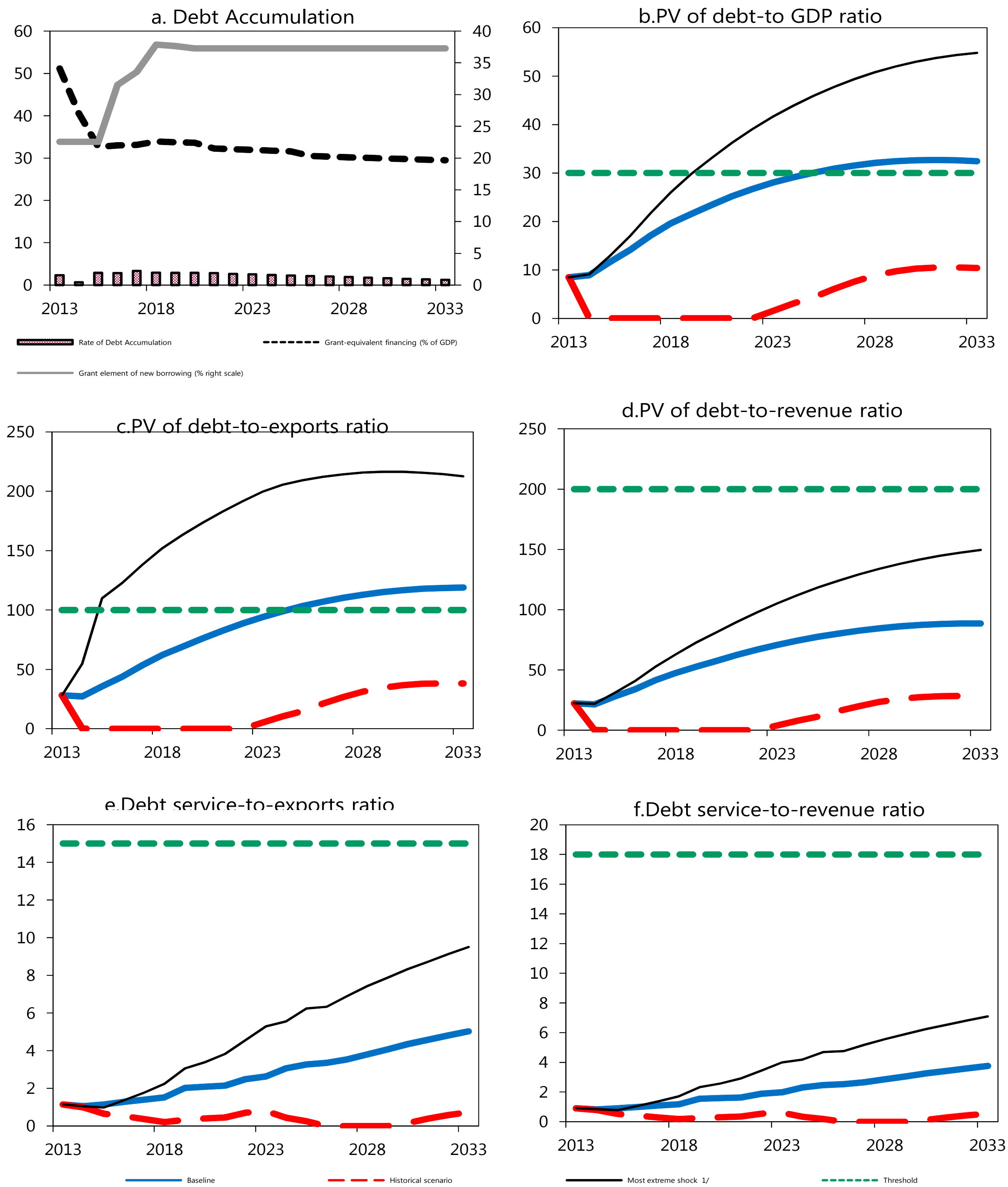
Under the stronger scenario, the PV of total public debt is projected to increase to around 11 percent of GDP over the long term, much lower than 34 percent of GDP in the baseline scenario. The PV of both external debt-to-GDP and external debt-to-export will stay far below the threshold. The PV of external debt-to-GDP ratio will eventually decline after reaching its peak at 16⅔ percent in 2019, while the PV of external debt-to-export will start declining after reaching to 53⅔ percent in 2019. Even with most extreme shocks, the PV of external debt-to-GDP will not cross the threshold, while the PV of external debt-to-export will cross the threshold for a period starting 2015, but eventually decline below the threshold in the longer term.

Conclusions

Kiribati continues to be at high risk of debt distress. To narrow fiscal imbalances and stabilize the real per capita RERF value in the longer term, it is imperative for the authorities to pursue fiscal consolidation through both revenue and expenditure measures. Structural reforms to improve business climate and promoting private sector growth are also critical to reduce fiscal burden.

The authorities broadly agreed with this assessment. They indicated the commitment to preserving value of the RERF through fiscal and structural reform program supported by donor community. The government plans to introduce value added and excise taxes and is keen to improve tax administration. They are also committed to controlling expenditure by reforming SOEs and rationalizing the administrative costs and public wages.

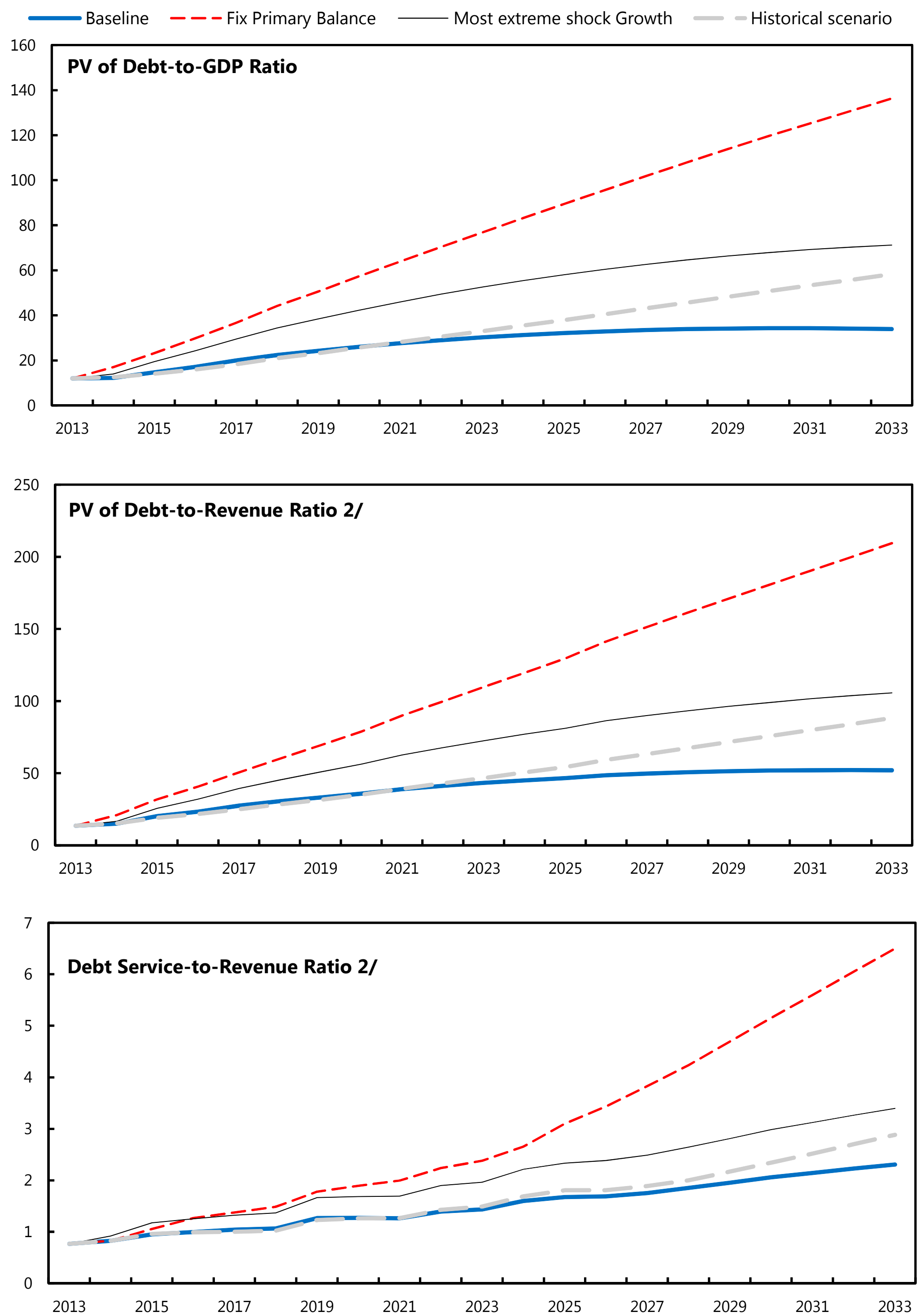
Figure 1. Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2013–33 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2023. In figure b. it corresponds to a Terms shock; in c. to a Exports shock; in d. to a Terms shock; in e. to a Terms shock and in figure f. to a Terms shock

Figure 2. Indicators of Public Debt Under Alternative Scenarios, 2013–33 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2023.
2/ Revenues are defined inclusive of grants.

Table 1. Public Sector Debt Sustainability Framework, Baseline Scenario, 2010–2033
(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2010	2011	2012	Average 5/	Standard Deviation 5/	2013	2014	2015	2016	2017	2018	2013-18 Average	2023	2033	2019-33 Average
Public sector debt 1/	32.1	29.2	11.6			13.9	14.2	17.5	21.0	25.3	29.2		41.7	47.1	
of which: foreign-currency denominated	11.3	8.4	7.9			10.4	10.9	14.3	18.0	22.4	26.4		39.4	45.6	
Change in public sector debt	1.4	-2.9	-17.6			2.3	0.4	3.3	3.5	4.3	3.9		1.9	-0.3	
Identified debt-creating flows	11.5	20.4	6.2			20.6	13.4	15.3	14.5	14.7	13.2		10.8	6.7	
Primary deficit	10.3	19.1	6.3	13.8	4.9	20.6	13.4	15.2	14.4	14.6	13.2	15.2	11.8	8.8	10.9
Revenue and grants	72.5	62.0	102.2			88.3	81.7	73.0	73.1	72.5	73.4		70.0	65.1	
of which: grants	24.7	25.0	48.4			50.5	40.3	31.7	31.7	31.5	32.2		30.5	28.5	
Primary (noninterest) expenditure	82.8	81.1	108.6			109.0	95.1	88.2	87.5	87.1	86.6		81.8	73.9	
Automatic debt dynamics	1.2	1.3	-0.1			0.0	0.0	0.1	0.1	0.1	0.0		-1.0	-1.4	
Contribution from interest rate/growth differential	2.2	1.3	-0.1			-0.1	-0.1	0.0	-0.1	-0.2	-0.4		-0.8	-1.2	
of which: contribution from average real interest rate	2.0	2.1	0.7			0.3	0.2	0.2	0.2	0.2	0.1		-0.1	-0.3	
of which: contribution from real GDP growth	0.2	-0.9	-0.8			-0.3	-0.4	-0.3	-0.3	-0.4	-0.5		-0.7	-0.8	
Contribution from real exchange rate depreciation	-1.0	0.0	0.0			0.0	0.2	0.2	0.2	0.3	0.4		...	...	
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	-0.7	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	-0.7	
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	-10.1	-23.3	-23.8			-18.3	-13.1	-12.1	-10.9	-10.4	-9.3		-8.9	-7.0	
Other Sustainability Indicators															
PV of public sector debt	...	...	10.2			11.9	12.2	14.7	17.1	20.0	22.4		30.3	33.9	
of which: foreign-currency denominated	...	...	6.5			8.5	8.9	11.6	14.1	17.1	19.6		28.0	32.4	
of which: external	...	...	6.5			8.5	8.9	11.6	14.1	17.1	19.6		28.0	32.4	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	12.9	21.5	7.0			21.3	14.1	15.9	15.1	15.4	13.9		12.8	10.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	10.0			13.5	14.9	20.2	23.4	27.5	30.5		43.2	52.1	
PV of public sector debt-to-revenue ratio (in percent)	...	...	18.9			31.5	29.5	35.7	41.3	48.6	54.2		76.6	92.6	
of which: external 3/	...	...	12.1			22.3	21.5	28.0	34.0	41.6	47.5		70.9	88.6	
Debt service-to-revenue and grants ratio (in percent) 4/	3.6	3.8	0.6			0.8	0.8	0.9	1.0	1.0	1.1		1.4	2.3	
Debt service-to-revenue ratio (in percent) 4/	5.5	6.4	1.2			1.8	1.6	1.7	1.8	1.8	1.9		2.5	4.1	
Primary deficit that stabilizes the debt-to-GDP ratio	8.9	22.0	23.9			18.4	13.0	11.9	10.9	10.4	9.3		9.9	9.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-0.5	2.7	2.8	1.7	3.3	2.9	2.7	2.0	2.0	2.0	2.0	2.2	1.8	1.8	1.8
Average nominal interest rate on forex debt (in percent)	1.0	1.0	1.0	1.0	0.1	1.6	1.4	1.6	1.6	1.5	1.4	1.5	1.1	1.0	1.1
Average real interest rate on domestic debt (in percent)	9.5	10.7	3.5	8.9	3.7	6.9	7.2	7.4	7.6	7.9	8.1	7.5	7.1	6.1	6.7
Real exchange rate depreciation (in percent, + indicates depreciation)	-9.9	0.0	-0.2	-3.8	14.0	0.5	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	1.3	-0.8	-1.7	0.8	2.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.0	0.4	0.0	0.2	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	22.6	22.6	22.6	31.5	33.6	37.9	28.4	37.3	37.3	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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 2. Sensitivity Analysis for Key Indicators of Public Debt 2013–33

	Projections							
	2013	2014	2015	2016	2017	2018	2023	2033
PV of Debt-to-GDP Ratio								
Baseline	12	12	15	17	20	22	30	34
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	12	13	14	16	18	21	33	58
A2. Primary balance is unchanged from 2013	12	17	23	30	37	44	77	136
A3. Permanently lower GDP growth 1/	12	12	16	19	23	26	43	76
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	12	14	19	24	30	34	53	71
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	12	16	21	23	26	28	36	38
B3. Combination of B1-B2 using one half standard deviation shocks	12	14	17	21	25	29	43	55
B4. One-time 30 percent real depreciation in 2014	12	16	18	20	22	24	29	31
B5. 10 percent of GDP increase in other debt-creating flows in 2014	12	19	21	24	27	29	36	39
PV of Debt-to-Revenue Ratio 2/								
Baseline	14	15	20	23	28	30	43	52
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	14	15	19	22	25	28	47	88
A2. Primary balance is unchanged from 2013	14	21	32	41	51	60	110	209
A3. Permanently lower GDP growth 1/	14	15	21	25	31	35	60	110
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	14	17	26	32	39	45	73	106
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	14	19	28	32	36	39	51	58
B3. Combination of B1-B2 using one half standard deviation shocks	14	17	23	28	34	39	60	83
B4. One-time 30 percent real depreciation in 2014	14	19	25	27	31	33	42	48
B5. 10 percent of GDP increase in other debt-creating flows in 2014	14	23	29	33	37	40	52	59
Debt Service-to-Revenue Ratio 2/								
Baseline	0.8	0.8	0.9	1.0	1.0	1.1	1.4	2.3
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	0.8	0.8	1.0	1.0	1.0	1.0	1.5	2.9
A2. Primary balance is unchanged from 2013	0.8	0.8	1.1	1.3	1.4	1.5	2.4	6.5
A3. Permanently lower GDP growth 1/	0.8	0.8	1.0	1.0	1.1	1.1	1.7	3.7
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2014-2015	0.8	0.8	1.0	1.1	1.2	1.3	1.9	4.0
B2. Primary balance is at historical average minus one standard deviations in 2014-2015	0.8	0.8	1.0	1.2	1.2	1.2	1.5	2.6
B3. Combination of B1-B2 using one half standard deviation shocks	0.8	0.8	1.0	1.1	1.1	1.2	1.7	3.3
B4. One-time 30 percent real depreciation in 2014	0.8	0.9	1.2	1.3	1.3	1.4	2.0	3.4
B5. 10 percent of GDP increase in other debt-creating flows in 2014	0.8	0.8	1.1	1.3	1.2	1.2	1.6	2.7

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.

Table 3a. External Debt Sustainability Framework, Baseline Scenario, 2010–33 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
				Average	Deviation							2013-2018			2019-2033
	2010	2011	2012			2013	2014	2015	2016	2017	2018	Average	2023	2033	Average
External debt (nominal) 1/	**11.3**	**8.4**	**7.9**			**10.4**	**10.9**	**14.3**	**18.0**	**22.4**	**26.4**		**39.4**	**45.6**	
of which: public and publicly guaranteed (PPG)	11.3	8.4	7.9			10.4	10.9	14.3	18.0	22.4	26.4		39.4	45.6	
Change in external debt	1.5	-2.9	-0.5			2.5	0.5	3.4	3.7	4.4	4.0		2.0	-0.3	
Identified net debt-creating flows	15.4	27.6	30.6			37.7	35.2	30.4	31.4	31.4	31.5		22.9	23.0	
Non-interest current account deficit	**16.8**	**29.1**	**31.4**	**23.5**	**7.1**	**42.9**	**36.0**	**31.1**	**32.1**	**32.1**	**32.2**		**23.9**	**24.6**	24.0
Deficit in balance of goods and services	50.9	65.4	60.2			73.9	65.3	58.9	58.5	57.6	56.8		55.9	51.2	
Exports	36.3	29.7	45.8			29.9	32.9	32.5	32.2	31.9	31.5		29.8	27.3	
Imports	87.1	95.1	106.0			103.8	98.1	91.4	90.7	89.5	88.3		85.7	78.5	
Net current transfers (negative = inflow)	-18.7	-16.8	-15.7	-20.2	4.7	-16.3	-14.9	-14.0	-13.2	-12.5	-12.0		-14.0	-14.0	-14.0
of which: official	-20.6	-18.8	-18.0			-18.6	-17.3	-16.4	-15.6	-15.0	-14.5		-16.4	-16.4	
Other current account flows (negative = net inflow)	-15.5	-19.5	-13.2			-14.8	-14.4	-13.7	-13.3	-13.0	-12.6		-17.9	-12.6	
Net FDI (negative = inflow)	**0.1**	**-0.2**	**-0.8**	**-0.4**	**0.3**	**-5.0**	**-0.7**	**-0.7**	**-0.6**	**-0.6**	**-0.6**		**-0.8**	**-1.3**	-0.9
Endogenous debt dynamics 2/	**-1.5**	**-1.3**	**0.0**			**-0.1**	**-0.1**	**0.0**	**-0.1**	**-0.1**	**-0.1**		**-0.2**	**-0.4**	
Contribution from nominal interest rate	0.1	0.1	0.1			0.1	0.1	0.2	0.2	0.3	0.3		0.4	0.4	
Contribution from real GDP growth	0.0	-0.3	-0.2			-0.2	-0.3	-0.2	-0.3	-0.3	-0.4		-0.6	-0.8	
Contribution from price and exchange rate changes	-1.6	-1.2	0.1			...	...	...	...	...	...		....	...	
Residual (3-4) 3/	**-13.9**	**-30.5**	**-31.0**			**-35.2**	**-34.6**	**-27.0**	**-27.7**	**-27.0**	**-27.5**		**-20.9**	**-23.3**	
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/	...	...	6.5			8.5	8.9	11.6	14.1	17.1	19.6		28.0	32.4	
In percent of exports	...	...	14.2			28.3	27.1	35.6	43.8	53.5	62.2		94.1	118.9	
PV of PPG external debt	**...**	**...**	**6.5**			**8.5**	**8.9**	**11.6**	**14.1**	**17.1**	**19.6**		**28.0**	**32.4**	
In percent of exports	**...**	**...**	**14.2**			**28.3**	**27.1**	**35.6**	**43.8**	**53.5**	**62.2**		**94.1**	**118.9**	
In percent of government revenues	**...**	**...**	**12.1**			**22.3**	**21.5**	**28.0**	**34.0**	**41.6**	**47.5**		**70.9**	**88.6**	
Debt service-to-exports ratio (in percent)	**1.0**	**1.1**	**0.7**			**1.1**	**1.1**	**1.1**	**1.3**	**1.4**	**1.5**		**2.6**	**5.0**	
PPG debt service-to-exports ratio (in percent)	**1.0**	**1.1**	**0.7**			**1.1**	**1.1**	**1.1**	**1.3**	**1.4**	**1.5**		**2.6**	**5.0**	
PPG debt service-to-revenue ratio (in percent)	**0.7**	**0.9**	**0.6**			**0.9**	**0.8**	**0.9**	**1.0**	**1.1**	**1.2**		**2.0**	**3.8**	
Total gross financing need (Billions of U.S. dollars)	26.0	50.5	54.1			70.8	67.9	60.0	63.3	64.8	66.6		60.8	96.1	
Non-interest current account deficit that stabilizes debt ratio	15.2	32.0	31.8			40.4	35.5	27.7	28.4	27.7	28.2		21.9	24.9	
Key macroeconomic assumptions															
Real GDP growth (in percent)	-0.5	2.7	2.8	1.7	3.3	2.9	2.7	2.0	2.0	2.0	2.0	2.2	1.8	1.8	1.8
GDP deflator in US dollar terms (change in percent)	19.3	11.4	-1.4	7.7	8.0	3.1	0.0	0.0	0.2	0.2	0.2	0.6	2.5	2.5	2.4
Effective interest rate (percent) 5/	1.0	1.0	1.0	1.0	0.1	1.6	1.4	1.6	1.6	1.5	1.4	1.5	1.1	1.0	1.1
Growth of exports of G&S (US dollar terms, in percent)	32.5	-6.2	56.1	10.3	23.1	-30.7	12.9	0.9	1.2	1.3	0.9	-2.3	3.1	3.6	3.3
Growth of imports of G&S (US dollar terms, in percent)	5.5	25.0	13.0	9.6	15.9	3.9	-2.9	-5.0	1.4	0.8	0.8	-0.2	3.5	3.4	3.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	22.6	22.6	22.6	31.5	33.6	37.9	28.4	37.3	37.3	37.3
Government revenues (excluding grants, in percent of GDP)	47.8	37.0	53.8			37.9	41.4	41.3	41.4	41.0	41.3		39.5	36.6	38.6
Aid flows (in Billions of US dollars) 7/	37.3	43.2	84.8			93.7	76.9	61.7	66.9	69.9	74.7		85.4	118.9	
of which: Grants	37.3	43.2	84.8			93.7	76.9	61.7	62.9	63.9	66.7		77.4	110.9	
of which: Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	4.0	6.0	8.0		8.0	8.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			51.1	40.5	32.6	33.0	33.1	33.9		31.9	29.5	31.1
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			95.7	98.1	91.8	92.1	91.0	92.2		92.8	94.8	93.4
Memorandum items:															
Nominal GDP (Billions of US dollars)	150.9	172.7	175.1			185.7	190.7	194.4	198.7	203.0	207.5		254.0	388.7	
Nominal dollar GDP growth	18.7	14.5	1.4			6.1	2.7	2.0	2.2	2.2	2.2	2.9	4.3	4.3	4.3
PV of PPG external debt (in Billions of US dollars)			11.5			15.5	16.8	22.3	27.7	34.3	40.3		71.2	126.1	
(PVt-PVt-1)/GDPt-1 (in percent)						2.3	0.7	2.9	2.8	3.3	3.0	2.5	2.6	1.2	2.1
Gross workers' remittances (Billions of US dollars)	9.3	10.4	10.1			11.1	12.4	12.6	12.9	14.2	14.5		17.3	26.4	
PV of PPG external debt (in percent of GDP + remittances)	...	...	6.2			8.0	8.4	10.9	13.2	15.9	18.3		26.2	30.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	12.6			23.5	22.6	29.7	36.4	43.9	50.9		76.6	95.2	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	0.6			1.0	0.9	1.0	1.1	1.1	1.3		2.1	4.0	

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. It reflects RERF drawdowns and capital transfers.

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 3b. Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013–33

(In percent)

	Projections							
	2013	2014	2015	2016	2017	2018	**2023**	2033
PV of debt-to GDP ratio								
Baseline	8	9	12	14	17	20	**28**	32
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033 1/	8	0	0	0	0	0	2	12
A2. New public sector loans on less favorable terms in 2013-2033 2	8	9	13	17	22	26	**42**	55
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	8	9	12	15	18	21	**30**	35
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	8	14	24	26	29	32	**40**	39
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	8	9	12	14	17	20	**28**	33
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	8	9	11	13	16	19	**27**	32
B5. Combination of B1-B4 using one-half standard deviation shocks	8	10	13	15	18	20	**29**	32
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	8	13	16	20	24	28	**40**	46
PV of debt-to-exports ratio								
Baseline	28	27	36	44	53	62	**94**	119
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033 1/	28	0	0	0	0	0	7	45
A2. New public sector loans on less favorable terms in 2013-2033 2	28	28	40	53	68	83	**140**	201
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	28	27	35	43	53	62	**94**	119
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	28	55	110	123	138	152	**200**	213
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	28	27	35	43	53	62	**94**	119
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	28	27	33	41	51	59	**92**	118
B5. Combination of B1-B4 using one-half standard deviation shocks	28	34	47	56	67	78	**115**	142
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	28	27	35	43	53	62	**94**	119
PV of debt-to-revenue ratio								
Baseline	22	22	28	34	42	48	**71**	89
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033 1/	22	0	0	0	0	0	6	33
A2. New public sector loans on less favorable terms in 2013-2033 2	22	22	31	41	53	63	**105**	150
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	22	22	30	36	44	51	**77**	96
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	22	34	58	64	72	77	**100**	106
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	22	21	28	34	41	47	**71**	89
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	22	21	26	32	40	45	**69**	88
B5. Combination of B1-B4 using one-half standard deviation shocks	22	23	30	36	44	49	**72**	88
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	22	30	40	48	59	67	**101**	127

Table 3b. Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2013–33 (Cont'd)

(In percent)

Debt service-to-exports ratio								
Baseline	1	1	1	1	1	2	**3**	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033 1/	1	1	1	1	0	0	1	1
A2. New public sector loans on less favorable terms in 2013-2033 2	1	1	1	1	2	2	**5**	10
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	1	1	1	1	1	2	**3**	5
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	1	1	2	3	3	3	**5**	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	1	1	1	1	1	2	**3**	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	1	1	1	1	1	1	**3**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	1	2	2	2	**3**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	1	1	1	1	1	2	**3**	5
Debt service-to-revenue ratio								
Baseline	1	1	1	1	1	1	**2**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2013-2033 1/	1	1	1	0	0	0	1	1
A2. New public sector loans on less favorable terms in 2013-2033 2	1	1	1	1	1	2	**4**	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2014-2015	1	1	1	1	1	1	**2**	4
B2. Export value growth at historical average minus one standard deviation in 2014-2015 3/	1	1	1	1	2	2	**2**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2014-2015	1	1	1	1	1	1	**2**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2014-2015 4/	1	1	1	1	1	1	**2**	4
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	1	1	1	1	**2**	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2014 5/	1	1	1	1	2	2	**3**	5
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	32	32	32	32	32	32	**32**	32

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.

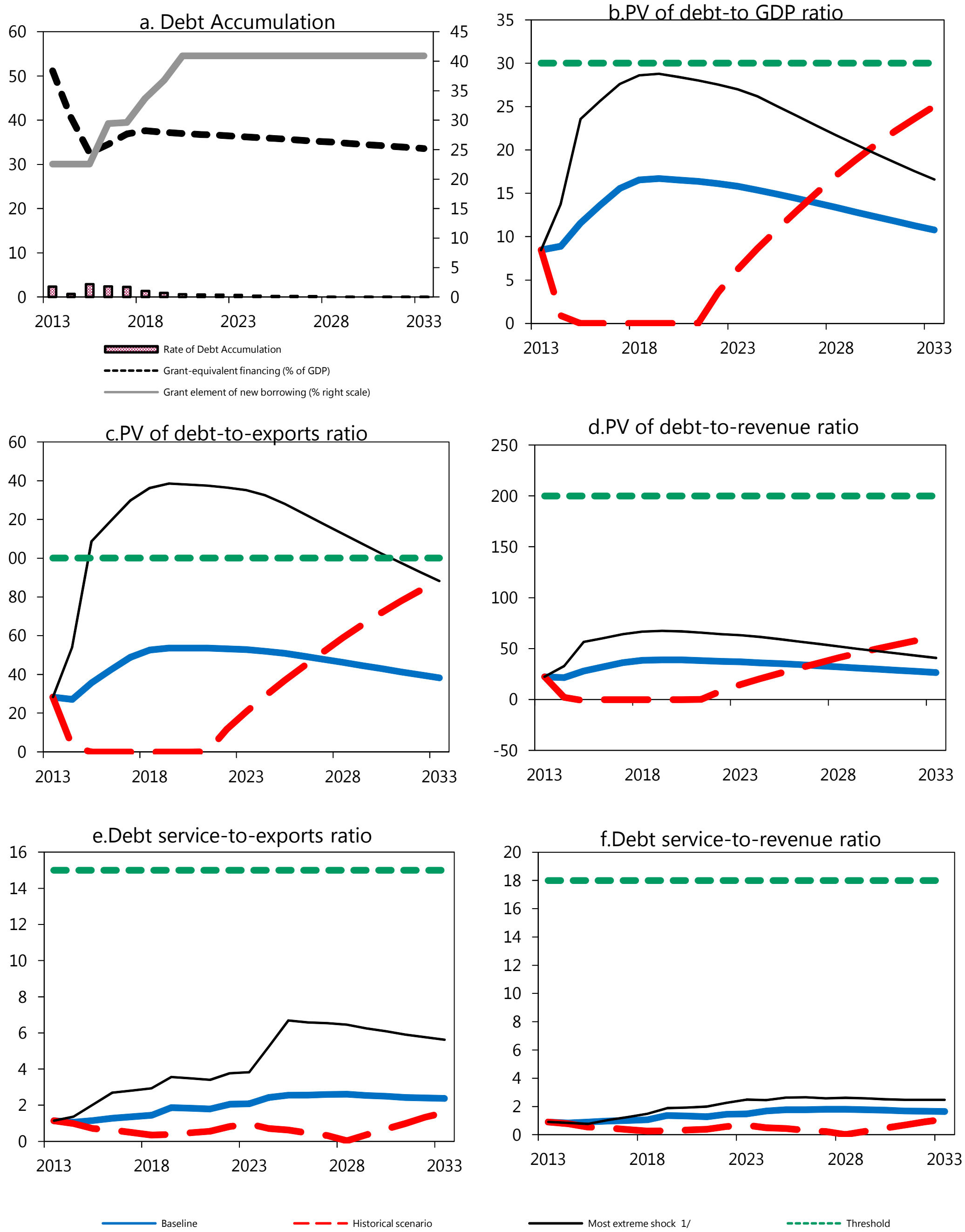
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

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.

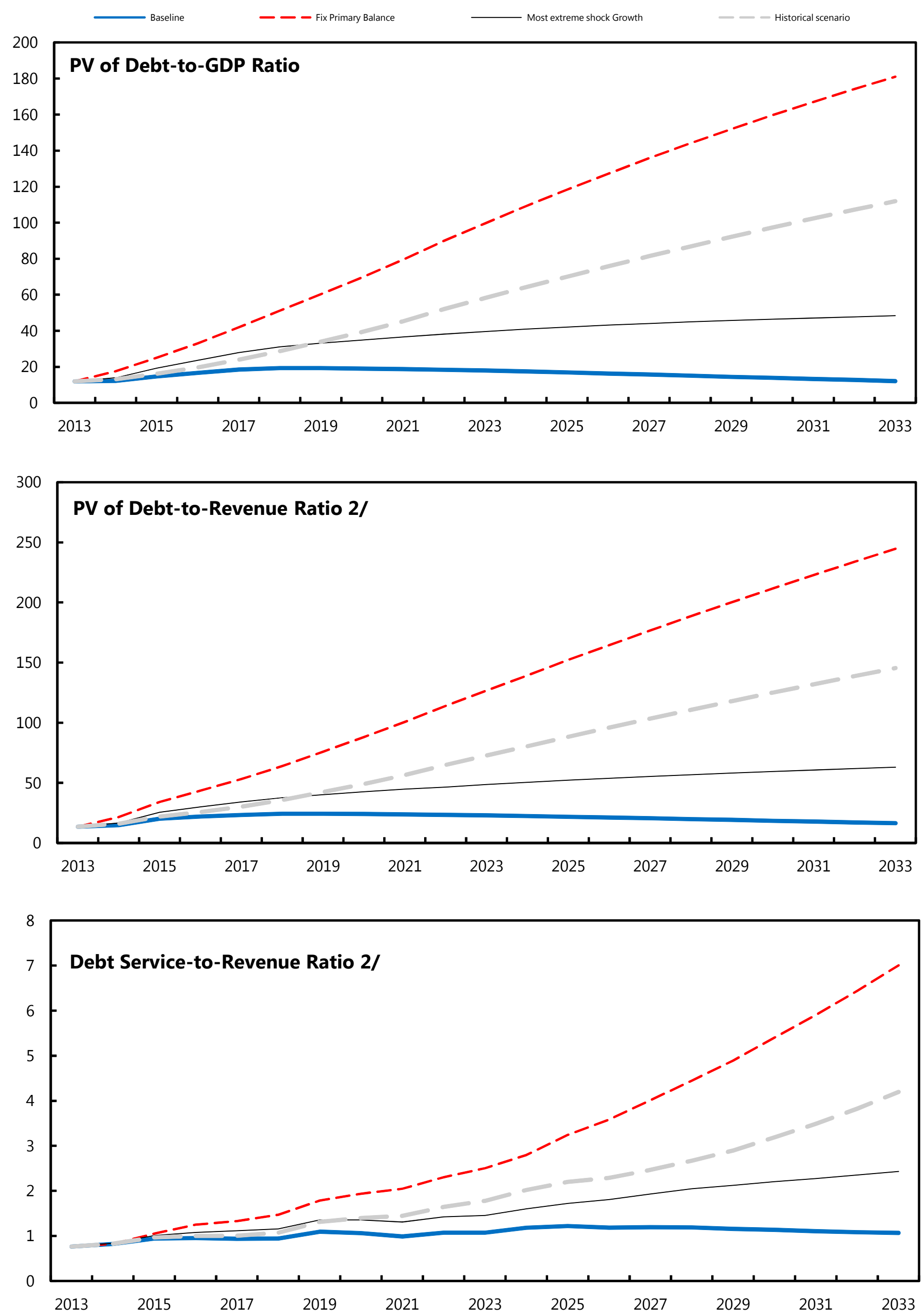
Reform Scenario: Figure 1. Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2013–33 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2023. In figure b. it corresponds to a Exports shock; in c. to a Exports shock; in d. to a Exports shock; in e. to a Exports shock and in figure f. to a Terms shock

Reform Scenario: Figure 2. Indicators of Public Debt Under Alternative Scenarios, 2013–33 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2023.
2/ Revenues are defined inclusive of grants.