GRENADA

May 3, 2016

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION, FOURTH REVIEW UNDER THE EXTENDED CREDIT FACILITY, REQUEST FOR WAIVER OF NON-OBSERVANCE OF A PERFORMANCE CRITERION, REQUEST FOR MODIFICATION OF A PERFORMANCE CRITERION, AND FINANCING ASSURANCES REVIEW— DEBT SUSTAINABILITY ANALYSIS

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While prospects for a restoration of external debt sustainability have improved significantly, Grenada's external debt remains in distress absent completion of the broader debt restructuring and clearance of arrears to all official creditors. The comprehensive restructuring of Grenada's public debt is nearing completion. Agreements have been implemented with creditors representing over two thirds of total debt under negotiation. Combined, the agreements to date are expected to reduce public debt by about 15 percent of GDP by 2018 and will also provide cash flow relief. Significant progress has been made to clear arrears, with all budget expenditure arrears cleared by end-2015 and three fourths of arrears to external creditors regularized. This marks a critical milestone toward restoring liquidity to the domestic economy, entrenching the economic recovery underway and regularizing financial relations with external creditors. Nevertheless, completion of the debt restructuring and continued fiscal discipline will be needed to keep debt on a downward path and restore its sustainability.

RECENT DEBT DEVELOPMENTS

1. **This annex provides an updated Debt Sustainability Analysis (DSA) of Grenada's public debt**. The DSA incorporates all debt restructuring agreements executed with external and domestic creditors as of 2016Q1 (table) as well as the agreement in principle reached in November 2015 with Paris Club bilateral creditors to reschedule outstanding Paris Club debts and arrears. [1] [2] The baseline scenario does not assume any additional debt restructuring on other debt (external or domestic) under restructuring negotiations. Compared to the previous DSA, the short-run economic outlook has improved. Activity remains strong, driven by tourism and construction and underpinned by stronger than anticipated activity in 2015. Growth is revised upward compared to the forecast in the Third Review reflecting the expected positive impulse from the further oil price decline as well as steady growth in key tourism export markets. In the medium-term, growth is assumed to return to its potential of 2.7 percent, which has been revised upward from 2.5 percent in the previous DSA. Price inflation has stayed slightly negative as energy prices remain low while unemployment is high at 30 percent. The external position continues to strengthen owing to strong tourism receipts, lower oil prices and robust private capital inflows.[3]

Grenada: Debt Restructuring Agreements Executed

			National Insurance Scheme			
	Export-Import Bank of Taiwan Province of China	US$ and EC$ 2025 bonds	EC$2025 bond	2014/16 Serial Bond	Treasury Bill	Contribution arrears
Coupon	7% p.a.	7% p.a.	3% p.a.	3% p.a.	3% p.a.	3% p.a.
Tenor	15 years	15 years	25 years	25 years	7 years	5 years
Grace Period	3.5 years	0.5 years	10 years	10 years	2 years	0
Repayment	Equal semiannual installments	Equal semiannual installments	Mortgage style semiannual installments	Mortgage style semiannual installments	Equal semiannual installments	Equal quarterly installments
Principal Reduction	50% at closing	50% at closing and 50% at completion of ECF-supported program	n.a.	n.a.	n.a.	n.a.
Past Due and Accrued Interest	50% reduction, remainder capitalized	100% capitalized	100% capitalized	100% capitalized	100% capitalized	n.a.
Memo:						
NPV Haircut (12% exit yield)	59%	54%	73%	73%	31%	19%
NPV Haircut (5% exit yield)	39%	32%	52%	52%	8%	4%

2. **Grenada's debt restructuring is nearing completion.** Restructuring agreements have now been reached with creditors representing about 64 percent of total debt under restructuring negotiations valued at 34 percent of GDP (text figure). As of end-2015, the agreements executed with Grenada's external creditors have lowered the debt-to-GDP ratio by 8 percentage points and, once the agreement with Grenada's private bondholders is fully executed, a further 6 percentage point decline is anticipated in 2017.[4] Agreements to restructure domestic debt are expected to lower the debt-to-GDP ratio by

[1] See Supplement to IMF Country Report No. 15/333.

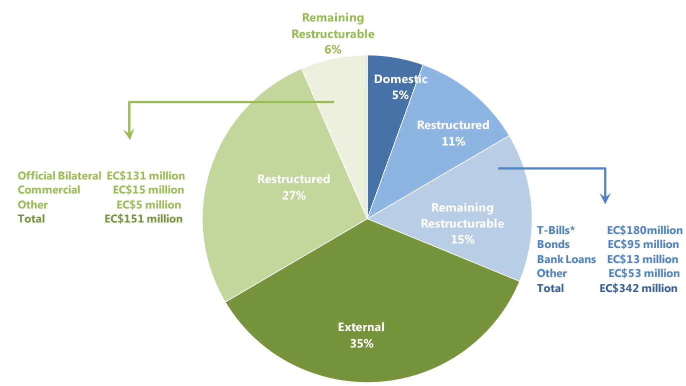
[2] The DSA includes assumptions on the restructuring of commercial bank debt consistent with agreements reached with commercial bank creditors, and includes the impact of the agreement to restructure a privately held T-bill held by the Port Authority (for a 50 percent nominal haircut on principal and interest arrears).

[3] Detailed macroeconomic assumptions can be found in IMF Country Report No. 16/133.

[4] The DSA does not include any impact of potential receipts under the CBI program on the debt restructuring agreement with Grenada's external creditors. Under the debt restructuring agreement, creditors will only receive a

1.1 percentage points in 2016. In total, the agreements reached thus far are expected to reduce the debt- to GDP ratio by about 15 percentage points by 2018.[5] Important cash flow relief is also anticipated from these agreements as well as those reached with Paris Club bilateral creditors and Grenada's National Insurance Scheme (NIS). The total reduction in the net present value of public debt as a result of the flow restructuring agreements reached with creditors is estimated at 3 percent of 2015 GDP.[6]

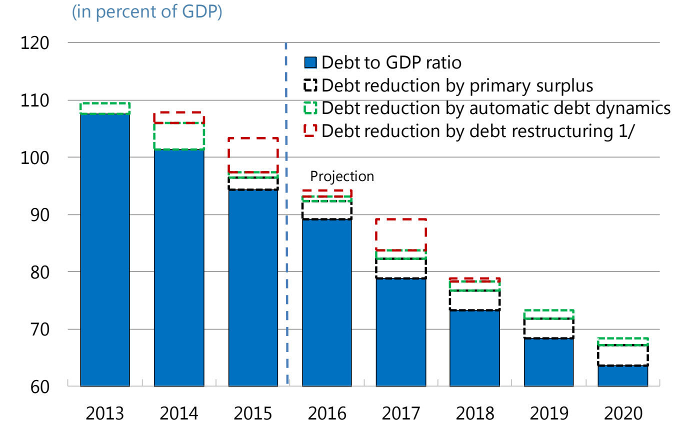
Central Government Restructurable Debt
(2015Q4, EC$493, or 21% of central government debt)



Source: Grenada authorities. *EC$36 million of outstanding Treassury bills are listed on the RGSM and are not elligible for restructuring.

3. **With the progress achieved on debt restructuring and fiscal consolidation, Grenada's public debt has continued to decline from its 2013 peak.** Public debt declined to 94.3 percent of GDP in 2015 from 101.4 in 2014 after peaking at 107.6 percent in 2013. The reduction in public debt in 2015 was less than anticipated at the third review (4 percent of GDP). This was associated with the authorities' strategy to clear more domestic arrears with debt issuance rather than cash, as anticipated by staff. This contributed to a build up of government deposits. Public debt is now expected to decline to 73 percent of GDP by 2018, with about 15 percentage points of the total reduction of 35 percent of GDP from the peak in 2013 attributed to debt restructuring. Fiscal consolidation and automatic debt dynamics are expected to account for the remainder of the anticipated reduction (text figure). Completion of the broader debt restructuring with all remaining creditors, as well as completion of the ongoing fiscal consolidation remain essential to restoring debt sustainability and reducing Grenada's public toward the 55 percent of GDP ceiling as required in Grenada's Fiscal Responsibility Act (FRA) of 2015.

Grenada: Public Sector Debt
(in percent of GDP)



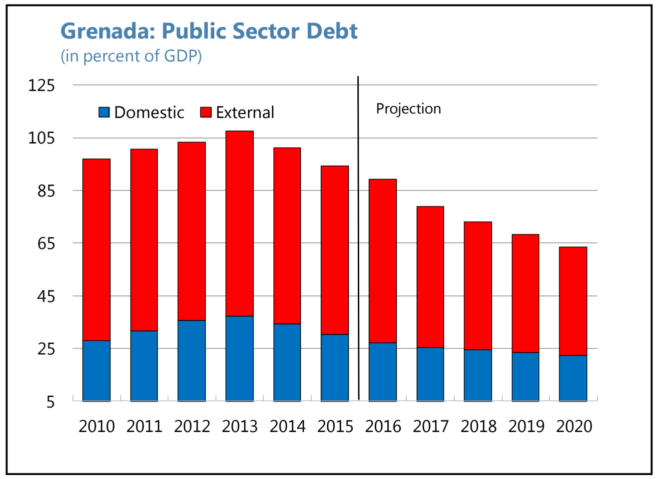
1/ Includes only agreed restructuring.

portion of CBI program receipts if they meet a particular threshold. Staff's projection is that CBI receipts will remain below this threshold.

[5] This includes a 0.5 percent of GDP decline in public debt associated with the expiration of the statute of limitations on some of Grenada's external commercial debt.

[6] Assuming a 5 percent discount rate. A 12 percent discount rate would yield an estimated NPV reduction of 4.5 percent of 2015 GDP. Includes flow restructuring agreements reached with the NIS and the Paris Club. Excludes agreements reached, but not yet executed, with commercial banks.

4. The restructuring of Grenada's debt with its external creditors has reduced the stock of public external debt. Public external debt fell from its peak of 70 percent of GDP in 2013 to 64 percent in 2015 as the debt restructuring with external creditors is completed and fiscal consolidation continues, and is expected to continue to decline to 41 percent of GDP by 2020 (text figure). Nevertheless, the baseline scenario of the DSA finds that the debt thresholds on the present value of the debt-to-GDP, debt service-to-revenue, and debt -to-exports ratios are breached (Figure I).[7] These breaches to the thresholds in the baseline scenario are relatively minor and temporary in nature, suggesting that Grenada's external risk of debt distress is a borderline high-moderate risk case. To complement the baseline scenario analysis and results, the probability approach focusing on the evolution of the probability of debt distress over time, rather than on the evolution of debt burden indicators, was also considered (Figure 2). The results show similar, but accentuated, breaches to the baseline scenario thresholds, which lends support to a high external risk rating for Grenada. However, the ongoing debt restructuring and existence of arrears to official creditors means that Grenada's external debt remains in distress.



5. The DSA includes a shock scenario to assess the potential impact of a natural disaster on debt sustainability. As a small Caribbean island economy, Grenada is highly vulnerable to natural disasters (i.e. hurricanes). Over 1980-2014 average annual damages from natural disasters in Grenada are estimated at 6.9 percent of GDP. Two particularly damaging hurricanes in 2004 and 2005 (Hurricanes Ivan and Emily) with estimated damages of 148 and 31 percent of GDP, respectively, account for the majority of average annual storm damages over this time period.[8] In the shock scenario, a natural disaster is expected to occur in 2016, with the fiscal response calibrated to be consistent with that of the hurricanes experienced in 2004/2005. The government is assumed to increase its expenditure by a total of 5 percent of GDP in the two years following the hurricane (2.5 percentage points in each 2017 and 2018) to cover reconstruction costs following a simulated disaster in 2016. Based on the estimated relationship between growth and natural disasters in the Caribbean and the ECCU (Acevedo, 2014), growth is expected to decline by 0.7 percentage points in 2016, and 1.3 percentage points in 2017.[9] The new lower growth path will have an impact on revenues which are expected to decline in line with the decrease in nominal growth, resulting in

[7] The Country Policy and Institutions Assessment (CPIA) ranks Grenada as a medium performer (the average CPIA in 2012–14 is 3.56).

[8] Other storms during this period include Hurricane Lenny (1999), Arthur (1990) and Allen (1980).

[9] See Acevedo, S. "Debt, Growth, and Natural Disasters: A Caribbean Trilogy" IMF Working Paper No. 14/125. The response is calibrated off of the estimated response to a moderate storm.

unchanged revenue to GDP ratio. This shock results in a debt path that is about 8 percent of GDP higher than in the baseline by 2020.

6. Absent completion of all debt restructuring steps and the clearance of arrears to all official creditors, Grenada's external debt remains "in distress". Completion of the debt restructuring with private creditors holding the U.S. and EC dollar commercial bonds and with the NIS have put public and external debt on a firm downward trajectory toward sustainability. Execution of the recent Paris Club agreement will further assist in the restoration of debt sustainability. Nevertheless, completion of the broader restructuring with remaining external and domestic creditors remains critical to restoring debt sustainability. Continued efforts to strengthen debt recording and monitoring, including by finalizing the planned medium-term debt strategy, will be important complements to debt restructuring and fiscal consolidation to strengthen debt sustainability.

Table 1. Public Debt Sustainability Framework, 2013-36

(In percent of GDP)

	Actual					Estimate	Projections								
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	107.6	101.4	94.3			89.2	78.8	73.2	68.3	63.6	58.9		53.5	51.0	
of which: foreign-currency denominated	70.2	67.1	64.1			61.9	53.5	48.8	45.0	41.3	37.7		36.9	41.0	
Change in public sector debt	4.3	-6.2	-7.0			-5.1	-10.4	-5.6	-4.9	-4.7	-4.7		-0.2	-0.1	
Identified debt-creating flows	2.0	-5.4	-9.8			-5.0	-10.4	-5.6	-4.9	-4.8	-4.7		-0.3	-1.2	
Primary deficit	3.9	1.1	-2.2	1.9	1.9	-3.2	-3.5	-3.5	-3.5	-3.5	-3.5	-3.4	1.0	0.2	0.7
Revenue and grants	20.9	24.5	25.6			24.6	25.4	25.5	25.5	25.5	25.5		25.5	25.5	
of which: grants	1.4	4.1	3.4			3.1	3.1	3.1	3.1	3.1	3.1		3.1	3.1	
Primary (noninterest) expenditure	24.8	25.6	23.3			21.4	21.9	22.0	22.1	22.0	22.1		26.5	25.7	
Automatic debt dynamics	-1.9	-4.6	-0.9			-0.8	-1.4	-1.6	-1.4	-1.2	-1.2		-1.2	-1.4	
Contribution from interest rate/growth differential	-1.1	-4.1	-1.6			-0.4	-0.8	-1.3	-1.3	-1.1	-1.1		-1.0	-1.1	
of which: contribution from average real interest rate	1.3	1.7	2.8			2.3	1.6	0.7	0.7	0.6	0.6		0.4	0.2	
of which: contribution from real GDP growth	-2.4	-5.8	-4.4			-2.8	-2.3	-2.1	-1.9	-1.8	-1.7		-1.4	-1.4	
Contribution from real exchange rate depreciation	-0.8	-0.5	0.7			-0.3	-0.6	-0.3	-0.2	-0.1	-0.1		...	...	
Other identified debt-creating flows	0.0	-1.9	-6.6			-1.0	-5.5	-0.5	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of 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)6/	0.0	-1.9	-6.0			-1.1	-5.5	-0.5	0.0	0.0	0.0		0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	-0.7			0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	2.2	-0.8	2.8			-0.2	0.0	0.0	0.0	0.1	-0.1		0.1	1.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	80.1			73.1	64.4	59.6	55.3	51.1	47.1		40.4	39.5	
of which: foreign-currency denominated	...	...	49.9			45.8	39.1	35.2	31.9	28.8	25.9		23.8	29.4	
of which: external	...	...	49.9			45.8	39.1	35.2	31.9	28.8	25.9		23.8	29.4	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	7.3	22.3	17.8			19.1	16.3	16.4	16.7	16.6	16.4		16.0	9.8	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	313.5			296.8	253.2	233.9	216.4	200.4	184.5		158.3	154.8	
PV of public sector debt-to-revenue ratio (in percent)	...	...	361.3			339.0	287.9	265.9	246.0	227.7	209.7		179.9	175.9	
of which: external 3/	...	...	225.0			212.4	174.7	157.1	142.0	128.4	115.2		106.2	131.2	
Debt service-to-revenue and grants ratio (in percent) 4/	15.9	86.6	78.5			90.4	77.9	77.9	78.9	78.9	77.7		59.0	37.9	
Debt service-to-revenue ratio (in percent) 4/	17.0	103.9	90.5			103.3	88.6	88.6	89.6	89.6	88.3		67.1	43.1	
Primary deficit that stabilizes the debt-to-GDP ratio	-0.3	7.4	4.8			2.0	6.9	2.1	1.4	1.2	1.3		1.1	0.3	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	2.4	5.7	4.6	0.7	4.1	3.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Average nominal interest rate on forex debt (in percent)	2.6	3.0	3.7	2.5	0.7	3.4	3.2	2.7	2.6	2.5	2.4	2.8	2.0	1.8	1.9
Average real interest rate on domestic debt (in percent)	1.9	2.2	3.4	2.9	1.2	2.9	1.9	1.6	1.8	2.0	2.0	2.0	2.0	2.0	2.0
Real exchange rate depreciation (in percent, + indicates depreciation)	-1.3	-0.7	1.0	0.0	1.4	-0.5	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.9	2.4	0.0	1.4	1.6	1.5	2.4	2.6	2.5	2.3	2.3	2.3	2.3	2.3	2.3
Growth of real primary spending (deflated by GDP deflator, in percent)	9.1	9.1	-4.7	1.9	5.2	-5.4	5.0	3.1	3.0	2.5	2.9	1.8	2.9	-1.1	3.9
Grant element of new external borrowing (in percent)	...	...	...	...	...	32.2	34.8	34.5	33.2	32.5	29.7	32.8	29.7	29.7	...

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.

6/Debt relief includes savings from restructuring agreements reached with external and domestic creditors.

Table 2. External Debt Sustainability Framework, 2013-36

(In percent of GDP)

	Actual			Historical [6/]	Standard [6/]	Projections									
				Average	Deviation							2016-2021			2022-2036
	2013	2014	2015			2016	2017	2018	2019	2020	2021	Average	2026	2036	Average
External debt (nominal) 1/	**144.1**	**144.2**	**140.2**			**136.2**	**125.5**	**119.4**	**114.2**	**109.4**	**104.6**		**98.3**	**92.6**	
of which: public and publicly guaranteed (PPG)	70.2	67.1	64.1			61.9	53.5	48.8	45.0	41.3	37.7		36.9	41.0	
Change in external debt	3.2	0.1	-4.0			-4.1	-10.6	-6.1	-5.2	-4.8	-4.8		-0.4	-0.5	
Identified net debt-creating flows	2.6	0.2	1.3			1.6	2.7	3.1	3.4	3.8	4.1		4.1	3.2	
Non-interest current account deficit	**21.4**	**13.4**	**11.9**	**19.9**	**5.0**	**9.8**	**12.2**	**12.9**	**13.7**	**14.1**	**14.4**		**14.5**	**13.5**	14.2
Deficit in balance of goods and services	21.9	14.6	12.7			10.5	12.8	13.4	14.3	14.8	15.1		14.6	13.2	
Exports	28.5	28.9	28.9			28.8	29.7	29.8	30.0	30.1	30.2		31.0	33.2	
Imports	50.4	43.5	41.5			39.3	42.5	43.2	44.3	44.9	45.3		45.6	46.4	
Net current transfers (negative = inflow)	-2.2	-2.9	-2.4	-3.5	1.0	-2.3	-2.2	-2.2	-2.2	-2.3	-2.3		-2.1	-1.7	-2.0
of which: official	-0.2	-1.1	-0.6			-0.6	-0.6	-0.6	-0.6	-0.6	-0.5		-0.5	-0.4	
Other current account flows (negative = net inflow)	1.7	1.7	1.6			1.6	1.7	1.7	1.7	1.6	1.7		2.0	2.0	
Net FDI (negative = inflow)	**-13.4**	**-4.4**	**-6.9**	**-8.9**	**4.7**	**-6.4**	**-8.1**	**-8.1**	**-8.7**	**-8.7**	**-8.7**		**-8.7**	**-8.7**	-8.7
Endogenous debt dynamics 2/	**-5.3**	**-8.8**	**-3.8**			**-1.8**	**-1.4**	**-1.7**	**-1.6**	**-1.6**	**-1.7**		**-1.8**	**-1.6**	
Contribution from nominal interest rate	1.9	2.1	2.6			2.2	2.1	1.5	1.4	1.3	1.1		0.8	0.8	
Contribution from real GDP growth	-3.1	-7.6	-6.3			-4.1	-3.5	-3.2	-3.0	-2.9	-2.8		-2.6	-2.4	
Contribution from price and exchange rate changes	-4.0	-3.4	0.0			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**0.5**	**-0.2**	**-5.2**			**-5.6**	**-13.4**	**-9.3**	**-8.5**	**-8.6**	**-8.9**		**-4.5**	**-3.7**	
of which: exceptional financing	-0.7	-3.4	-3.2			-2.6	-0.3	0.0	0.0	0.0	0.0		0.0	0.0	
debt restructuring	0.0	-1.9	-5.1			-0.7	-4.7	-0.5	0.0	0.0	0.0				
capital transfers						-4.9	-7.5	-7.1	-7.7	-7.7	-7.7				
PV of external debt 4/	...	...	126.0			120.0	111.1	105.7	101.2	96.9	92.8		85.2	81.0	
In percent of exports	...	...	436.1			417.1	374.1	354.9	337.6	322.2	307.4		274.9	244.2	
PV of PPG external debt	**...**	**...**	**49.9**			**45.8**	**39.1**	**35.2**	**31.9**	**28.8**	**25.9**		**23.8**	**29.4**	
In percent of exports	**...**	**...**	**172.7**			**159.1**	**131.6**	**118.1**	**106.5**	**95.8**	**85.7**		**76.9**	**88.7**	
In percent of government revenues	**...**	**...**	**225.0**			**212.4**	**174.7**	**157.1**	**142.0**	**128.4**	**115.2**		**106.2**	**131.2**	
Debt service-to-exports ratio (in percent)	**6.5**	**12.8**	**16.2**			**19.5**	**16.9**	**15.8**	**14.9**	**14.1**	**13.1**		**8.6**	**6.9**	
PPG debt service-to-exports ratio (in percent)	**5.9**	**12.1**	**15.6**			**18.8**	**16.3**	**15.2**	**14.3**	**13.5**	**12.5**		**8.2**	**6.7**	
PPG debt service-to-revenue ratio (in percent)	**8.6**	**17.2**	**20.3**			**25.2**	**21.6**	**20.3**	**19.1**	**18.0**	**16.8**		**11.3**	**9.9**	
Total gross financing need (Billions of U.S. dollars)	82.4	116.3	92.6			89.6	96.0	105.0	110.5	118.4	124.2		140.3	194.9	
Non-interest current account deficit that stabilizes debt ratio	18.2	13.4	15.9			13.9	22.9	19.0	18.9	19.0	19.2		14.9	14.0	
Key macroeconomic assumptions															
Real GDP growth (in percent)	2.4	5.7	4.6	0.7	4.1	3.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
GDP deflator in US dollar terms (change in percent)	2.9	2.4	0.0	1.4	1.6	1.5	2.4	2.6	2.5	2.3	2.3	2.3	2.3	2.3	2.3
Effective interest rate (percent) 5/	1.4	1.6	1.9	1.5	0.2	1.7	1.6	1.3	1.2	1.2	1.1	1.3	0.9	0.9	0.9
Growth of exports of G&S (US dollar terms, in percent)	3.8	9.9	4.4	3.4	6.6	4.1	8.5	5.7	5.9	5.5	5.4	5.9	5.7	5.2	5.8
Growth of imports of G&S (US dollar terms, in percent)	7.2	-6.4	-0.2	-1.4	9.4	-1.1	13.7	7.2	7.8	6.5	6.0	6.7	5.3	5.3	5.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	32.2	34.8	34.5	33.2	32.5	29.7	32.8	29.7	29.7	29.7
Government revenues (excluding grants, in percent of GDP)	19.5	20.4	22.2			21.5	22.4	22.4	22.5	22.5	22.5		22.5	22.4	22.5
Aid flows (in Billions of US dollars) 7/	11.6	37.2	32.3			50.4	41.9	41.7	43.4	45.3	39.3		50.5	83.2	
of which: Grants	11.6	37.2	32.3			30.6	32.1	33.9	35.6	37.4	39.3		50.5	83.2	
of which: Concessional loans	0.0	0.0	0.0			19.8	9.8	7.8	7.8	7.8	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			5.8	2.2	3.5	3.6	3.5	3.4		4.3	4.2	4.2
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			50.1	338.1	81.4	76.9	77.9	80.6		58.9	60.8	62.0
Memorandum items:															
Nominal GDP (Billions of US dollars)	842.6	911.8	953.6			997.2	1048.4	1104.8	1162.4	1221.5	1283.6		1646.5	2716.8	
Nominal dollar GDP growth	5.3	8.2	4.6			4.6	5.1	5.4	5.2	5.1	5.1	5.1	5.1	5.1	5.1
PV of PPG external debt (in Billions of US dollars)			475.9			456.4	409.5	388.7	370.9	352.3	332.1		392.6	800.1	
(PVt-PVt-1)/GDPt-1 (in percent)						-2.0	-4.7	-2.0	-1.6	-1.6	-1.7	-2.3	1.7	2.0	1.6
Gross workers' remittances (Billions of US dollars)	30.5	31.2	31.8			32.7	34.0	35.5	40.0	44.7	49.5		60.9	92.3	
PV of PPG external debt (in percent of GDP + remittances)	...	...	48.3			44.3	37.8	34.1	30.8	27.8	24.9		23.0	28.5	
PV of PPG external debt (in percent of exports + remittances)	...	...	154.8			142.8	118.6	106.6	95.5	85.5	76.0		68.7	80.5	
Debt service of PPG external debt (in percent of exports + remittance	...	...	14.0			16.9	14.7	13.8	12.8	12.0	11.1		7.3	6.1	

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 3. Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-36

(In percent)

		Projections						
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	46	39	35	32	29	26	**24**	29
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	46	45	47	49	51	53	**71**	100
A2. New public sector loans on less favorable terms in 2016-2036 2	46	39	35	32	30	27	**29**	42
A3. Alternative Scenario: Natural Disaster	46	43	39	36	33	30	**27**	30
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	46	42	40	36	33	29	**27**	33
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	46	41	41	38	35	32	**29**	30
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	46	40	37	34	30	27	**25**	31
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	46	42	40	37	34	31	**28**	30
B5. Combination of B1-B4 using one-half standard deviation shocks	46	44	47	43	40	36	**33**	34
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	46	55	50	45	41	37	**34**	42
PV of debt-to-exports ratio								
Baseline	159	132	118	106	96	86	**77**	89
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	159	152	158	164	169	174	**228**	300
A2. New public sector loans on less favorable terms in 2016-2036 2	159	130	118	108	99	89	**95**	126
A3. Alternative Scenario: Natural Disaster	159	146	132	120	109	99	**86**	90
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	159	132	118	106	96	86	**77**	89
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	159	156	170	155	142	129	**113**	112
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	159	132	118	106	96	86	**77**	89
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	159	140	136	124	113	103	**90**	91
B5. Combination of B1-B4 using one-half standard deviation shocks	159	152	160	147	134	122	**107**	105
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	159	132	118	106	96	86	**77**	89
PV of debt-to-revenue ratio								
Baseline	212	175	157	142	128	115	**106**	131
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	212	202	210	218	227	234	**315**	444
A2. New public sector loans on less favorable terms in 2016-2036 2	212	173	157	144	132	120	**131**	186
A3. Alternative Scenario: Natural Disaster	212	193	175	160	146	132	**119**	134
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	212	186	177	160	145	130	**120**	148
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	212	185	185	169	155	142	**128**	136
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	212	179	166	150	135	122	**112**	138
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	212	187	181	165	151	138	**124**	135
B5. Combination of B1-B4 using one-half standard deviation shocks	212	197	210	192	177	162	**145**	153
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	212	247	222	201	182	163	**150**	186

Table 3: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-36 (Concluded)

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
Debt service-to-exports ratio								
Baseline	19	16	15	14	13	12	**8**	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	19	17	17	17	16	16	**18**	27
A2. New public sector loans on less favorable terms in 2016-2036 2	19	16	15	13	12	11	**7**	9
A3. Alternative Scenario: Natural Disaster	19	16	16	15	14	13	**9**	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	19	16	15	14	13	12	**8**	7
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	19	18	19	18	17	16	**12**	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	19	16	15	14	13	12	**8**	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	19	16	15	15	14	13	**10**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	19	18	18	17	16	15	**11**	9
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	19	16	15	14	13	12	**8**	7
Debt service-to-revenue ratio								
Baseline	25	22	20	19	18	17	**11**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	25	22	22	22	22	22	**24**	40
A2. New public sector loans on less favorable terms in 2016-2036 2	25	22	19	17	16	14	**10**	13
A3. Alternative Scenario: Natural Disaster	25	22	21	20	19	17	**13**	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	25	23	23	22	20	19	**13**	11
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	25	22	21	20	19	17	**14**	11
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	25	22	21	20	19	18	**12**	10
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	25	22	21	20	19	17	**13**	11
B5. Combination of B1-B4 using one-half standard deviation shocks	25	23	23	22	21	20	**16**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	25	31	29	27	25	24	**16**	14
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	28	28	28	28	28	28	**28**	28

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.

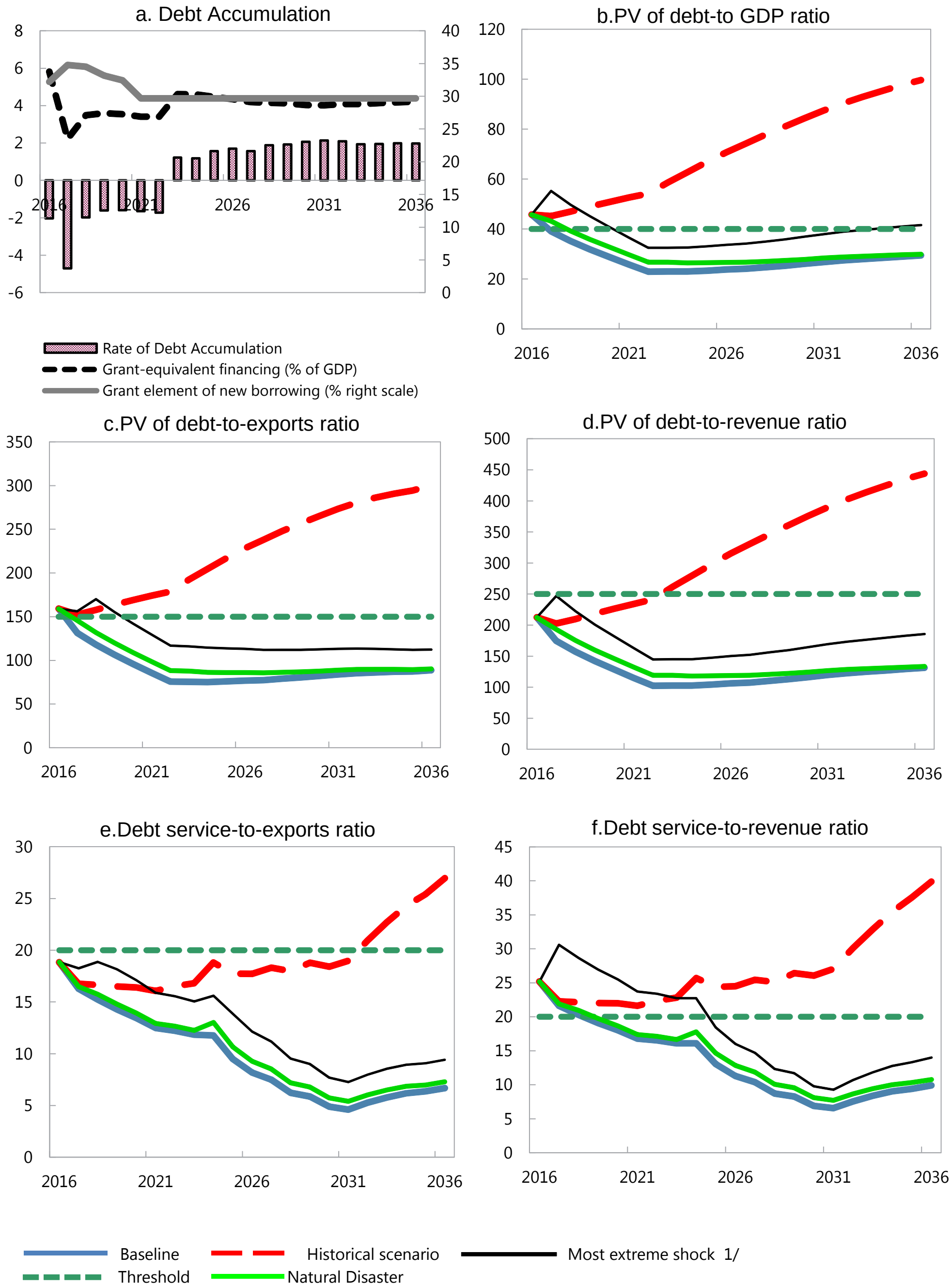
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming and offsetting adjustment in import levels).

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.

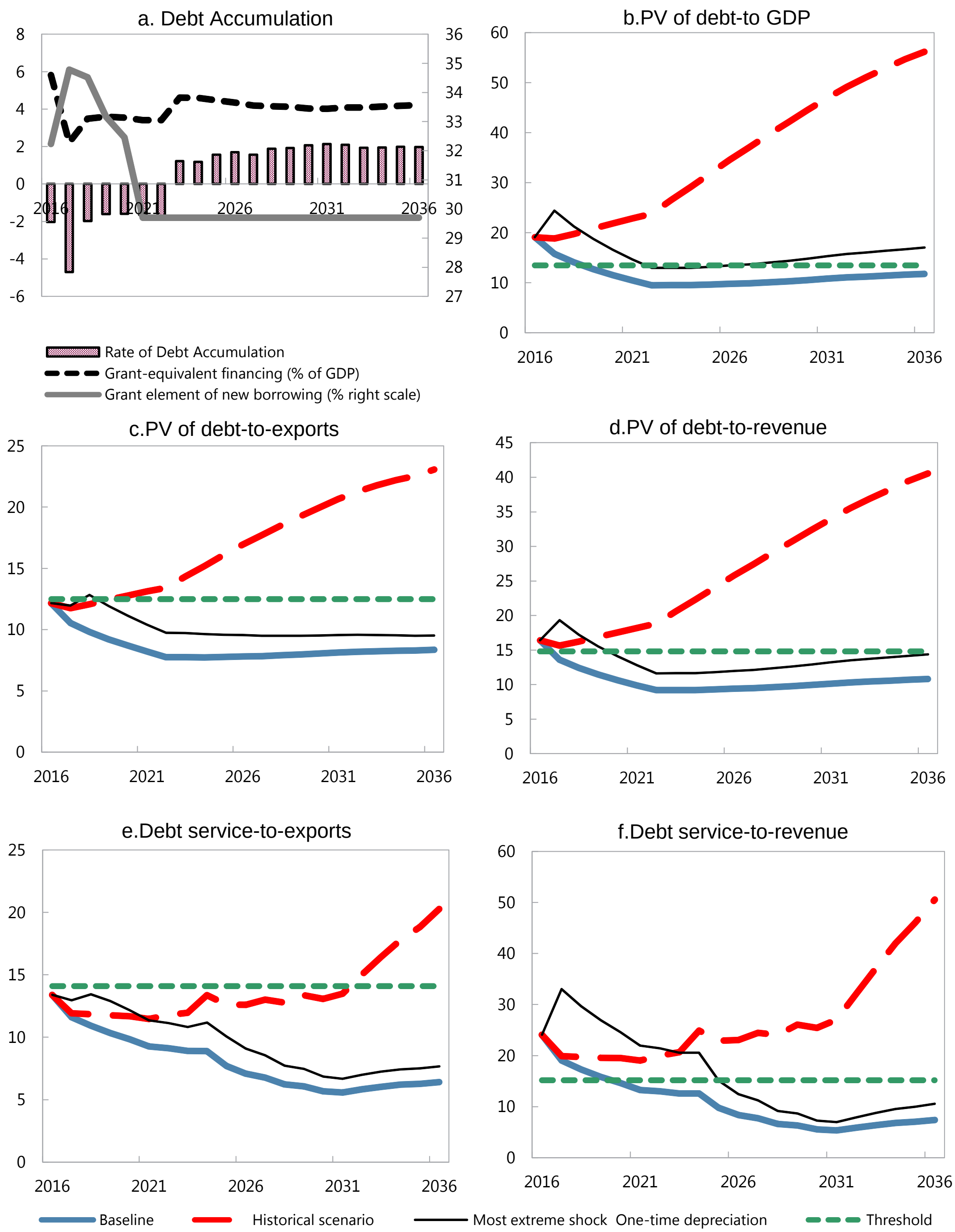
Figure 1: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2016-36 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Figure 2: Probability of Debt Distress of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2016-36 1/



Sources: Country authorities; and staff estimates and projections.

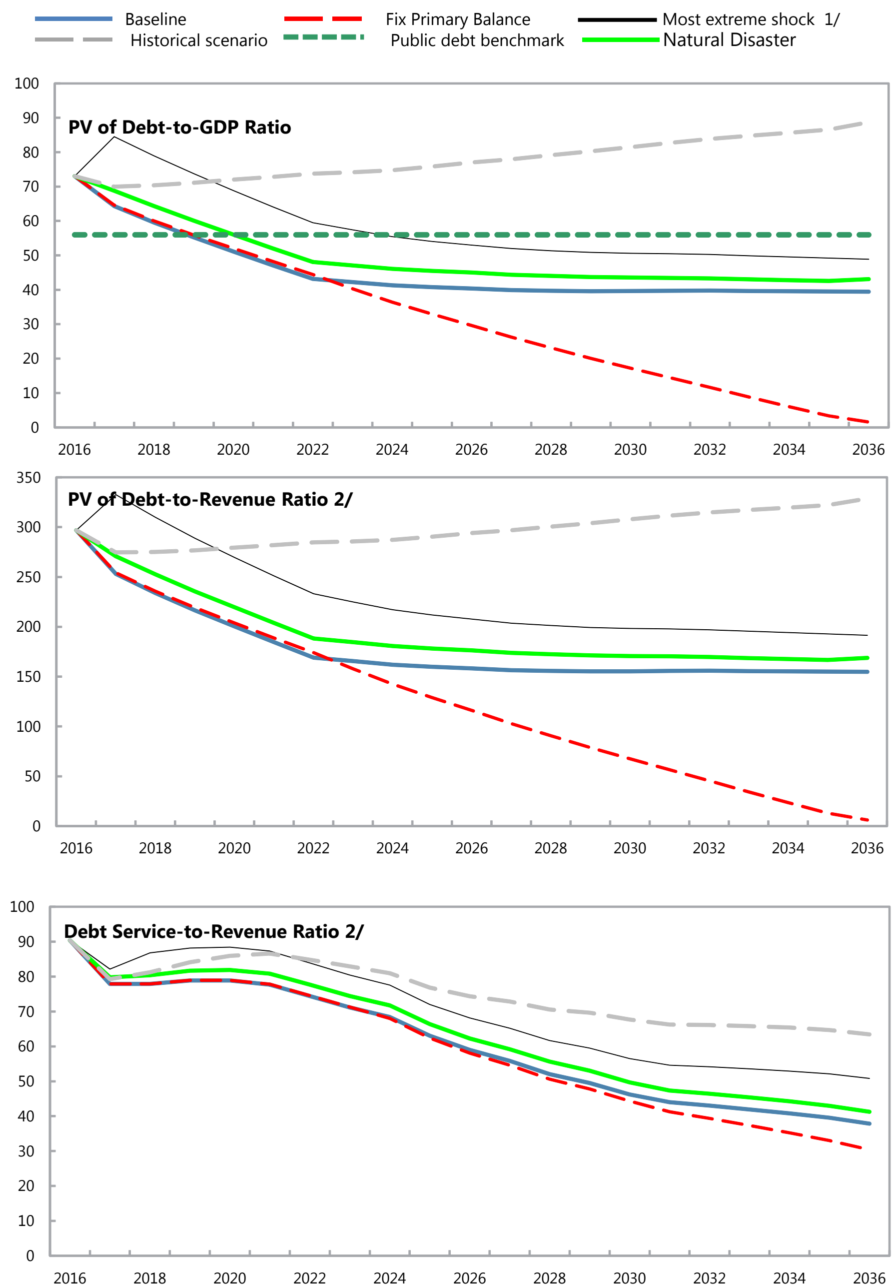
1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock

Table 4. Sensitivity Analysis for Key Indicators of Public Debt, 2016-36

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	73	64	60	55	51	47	40	39
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	73	70	70	71	72	73	77	89
A2. Primary balance is unchanged from 2016	73	65	60	56	52	48	30	2
A3. Permanently lower GDP growth 1/	73	65	61	58	54	51	52	78
A4. Alternative Scenario: Natural Disaster	73	69	64	60	56	52	45	43
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	73	70	71	68	65	63	65	80
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	73	70	71	66	61	57	50	47
B3. Combination of B1-B2 using one half standard deviation shocks	73	72	75	71	68	64	63	71
B4. One-time 30 percent real depreciation in 2017	73	85	79	74	69	64	53	49
B5. 10 percent of GDP increase in other debt-creating flows in 2017	73	72	67	62	58	54	47	44
PV of Debt-to-Revenue Ratio 2/								
Baseline	297	253	234	216	200	185	158	155
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	297	275	275	277	279	282	294	329
A2. Primary balance is unchanged from 2016	297	254	236	219	204	189	116	6
A3. Permanently lower GDP growth 1/	297	256	239	225	213	201	203	299
A4. Alternative Scenario: Natural Disaster	297	271	253	235	220	204	176	169
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	297	271	273	262	252	242	251	309
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	297	276	278	257	240	224	195	182
B3. Combination of B1-B2 using one half standard deviation shocks	297	283	291	275	262	250	244	274
B4. One-time 30 percent real depreciation in 2017	297	333	310	289	270	251	208	192
B5. 10 percent of GDP increase in other debt-creating flows in 2017	297	285	263	244	228	211	183	174
Debt Service-to-Revenue Ratio 2/								
Baseline	90	78	78	79	79	78	59	38
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	90	79	81	84	86	87	74	63
A2. Primary balance is unchanged from 2016	90	78	78	79	79	78	58	30
A3. Permanently lower GDP growth 1/	90	79	79	81	81	81	65	50
A4. Alternative Scenario: Natural Disaster	90	80	80	82	82	81	62	41
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	90	82	87	88	88	87	68	51
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	90	78	79	80	80	79	62	41
B3. Combination of B1-B2 using one half standard deviation shocks	90	81	84	86	86	85	67	48
B4. One-time 30 percent real depreciation in 2017	90	82	86	86	86	85	65	46
B5. 10 percent of GDP increase in other debt-creating flows in 2017	90	78	79	80	80	78	61	40

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.

Figure 3. Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2016-36 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2026.
2/ Revenues are defined inclusive of grants.