INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

BURUNDI

Joint Bank/Fund Debt Sustainability Analysis 2010

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

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July 9, 2010

Based on the external Low Income Country (LIC) Debt Sustainability Analysis (DSA), Burundi faces a high risk of debt distress. The present value (PV) of debt-to-exports ratio exceeds the country-specific threshold throughout the projection period by a wide margin, while alternative scenarios and stress tests suggest that all but one debt indicators will breach indicative thresholds. The public DSA suggests that while Burundi is in a position to service its public and publicly guaranteed debt, a worsening of the fiscal balance and lower growth would lead to a considerable deterioration of debt indicators. Burundi should continue to implement prudent borrowing policies, and accelerate structural reforms, particularly in infrastructure development and export diversification, to mitigate risks to debt sustainability.[1]

I. Background

1. **The last LIC DSA conducted in 2009 concluded that Burundi faced a high risk of debt distress.**[2] The PV of debt-to-exports ratio exceeded the country-specific policy-dependent threshold for most of the projection period, reflecting the country's narrow export base. In addition, all debt stock indicators and one liquidity indicator exceeded the country-specific debt burden thresholds when subjected to stress tests.

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[1] The DSA has been produced jointly by World Bank and IMF staffs.

[2] See IDA/R2009-0006 and IMF EBS/09/4.

2. **Burundi's external public and publicly guaranteed (PPG) debt declined in 2009 reflecting HIPC Initiative and MDRI debt relief.** Nominal external PPG debt[3] amounted to US$364 million or 27.4 percent of GDP in 2009 while the PV of debt-to-exports ratio stood at 178 percent. About 90 percent of Burundi's outstanding nominal external PPG debt was owed to multilateral creditors, with bilateral creditors accounting for the remainder. Efforts to secure HIPC Initiative debt relief from all creditors are continuing.[4]

Text Table 1. Burundi: Public External Debt, 2007-09
(Millions of US dollars)

	2007		2008		2009	
	Nominal Stock	Percent of Total	Nominal Stock	Percent of Total	Nominal Stock	Percent of Total
Total Debt	1,468	100.0	1,506	100.0	364	100.0
Multilateral	1,262	86.0	1,302	86.4	327	89.6
Bilateral	205	14.0	205	13.6	38	10.4
Paris club	152	10.4	151	10.1	1	0.4
Non-Paris club	53	3.6	53	3.5	36	10.0
Commercial	1	0.0	0	0.0	0	0.0

Sources: Burundian authorities; and Bank-Fund staff estimates.

3. **Burundi's domestic public debt accounts for an increasing share of total public debt.** At about 21 percent of GDP, domestic debt accounted for about 43 percent of total public debt in 2009, compared with 13 percent in 2007. The main reason for the increasing importance of domestic debt was the cancellation of external public debt as a result of HIPC Initiative and MDRI debt relief. Most domestic public debt is owed to the central bank and has been used to finance the government's operations.

4. **External debt stock indicators at end-2009 varied modestly compared to projections made at the time of the previous LIC DSA.** Debt stock indicators were higher than projected, while liquidity indicators were slightly lower (Text Table 2). The largest increase in debt inidcators was for the PV of debt-to-exports ratio. The increase was primarily the result of lower exports driven largely by lower coffee prices and the cyclical nature of coffee production (Text Table 3). Lower borrowing helped moderate the increase in the PV of debt-to-exports ratio.

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[3] General government, on a gross basis. As noted in the Technical Memorandum of Understanding, debt contracted by state-owned enterprises (SOEs) with a government guarantee is included in debt limits and therefore in the DSA.

[4] Among multilateral creditors, agreements have been signed with BADEA, the EU, and the OFID Fund, while negotiations are ongoing with IFAD. Among non-Paris Club creditors, agreements have been signed with Kuwait, Libya, Saudi Arabia and the UAE. The People's Republic of China cancelled all of its claims during the interim period. The terms of some of the signed agreements were less favorable than those envisaged under the HIPC Initiative.

Text Table 2. Burundi: Debt Sustainability Indicators, 2009
(percent)

	Proj. EBS/09/4	Act.
PV of debt to GDP	9.9	11.7
PV of debt to exports	131.7	178.0
PV of debt to revenue	51.6	62.8
Debt service to exports	3.7	1.9
Debt service to revenues	1.4	0.7

Source: Burundian authorities; and Bank-Fund staff estimates.

Text Table 3. Burundi: Breakdown of the Increase in the PV of Debt-to-Exports Ratio, 2009
(percent, unless otherwise indicated)

	Proj. EBS/09/4	Actual	Contribution to change in PV/X
PV of debt to exports (EBS/09/4)	131.7	178.0	46.3
Discount rate	5	4	14.5
Exports of goods and services (US$ million)	106.9	87.3	29.5
New borrowing, 2008-09 (US$ million)	108.8	76.5	-12.5
Other[1]			14.8

Source: Burundian authorities; and Bank-Fund staff estimates.

[1] Including differences in estimated HIPC relief and data revisions.

II. UNDERLYING DSA ASSUMPTIONS

5. **The current macroeconomic outlook takes into account changes in initial conditions (Text Table 4).** Growth was lower in 2009 reflecting the impact of the global financial crisis. Inflation in 2009 declined by more than previously projected as a result of lower food and oil prices. Moreover, the external current account deficit was higher than projected as lower current transfers outweighed the positive impact of lower oil and food prices on total imports.

Text Table 4. Burundi: Macroeconomic Assumptions and Outcomes, 2008-09

	2008		2009	
	EBS/09 /4	Act.	EBS/09 /4	Act.
	(Annual percentage change)			
National income and prices				
Real GDP growth	4.5	4.5	4.5	3.5
Consumer prices (end of period)	22.0	25.7	9.0	4.6
	(Percent of GDP, unless otherwise indicated)			
General government				
Revenue (excluding grants)	19.1	18.5	19.3	18.6
Total expenditure and net lending	44.8	44.1	44.6	39.3
Overall balance				
Cash basis, after non-HIPC grants)	-4.4	-4.5	-3.0	-5.2
External sector				
Current account balance	-13.0	-12.3	-11.5	-14.5
Gross official reserves				
End of period (US$ million)	138.4	266.6	139.9	323.0
In months of imports of the following year	3.2	6.5	3.1	6.5

Sources: Burundian authorities; and Fund staff estimates.

6. **Provided the security situation continues to improve, Burundi's medium and long-term outlook remains positive (Box 1).** Real GDP growth is expected to average 5 percent over the long term, contingent upon continued consolidation of peace, macroeconomic stability, improvements in the business environment, and Burundi's integration to the East African Community (EAC). Total investment is expected to average about 22 percent of GDP, a level considered supportive of economic growth. Exports of goods and services will be driven by investments in key export sectors over the medium term (coffee, tea, sugar and horticulture). The external current account deficit, including grants, will decline over time, despite lower donor support. Financing will continue to be in the form of grants and highly concessional loans. Fiscal policy will be supportive of economic growth and poverty reduction, while safeguarding debt sustainability. The fiscal

deficit is expected to gradually decline and reach fiscal balance during the later years. Revenue mobilization, reinforced by the newly created Burundi Revenue Authority, will lead to a gradual increase in government revenues, while expenditure will gradually decline to more sustainable levels.

7. **Investment spending will be critical for achieving higher growth**. Important areas of investment include infrastructure renovation (power, transport, and communications) and export-generating activities such as tourism and mining. Key projects to be undertaken over the short to medium term include the development of Burundi's domestic hydroelectric potential (Kaganuzi, Mpanda, Kabu 16) and provision of adequate power lines with necessary substations to all provincial capitals. The rehabilitation and maintenance of national highways and community and rural road networks will also contribute to improving Burundi's infrastructure gap. Implementing fundamental structural reforms—which has already begun—is needed to facilitate the necessary increase in private investment. These reforms include measures to improve the business regulatory environment and increase competition.[5] There is scope for a significant increase in growth in the medium and long term, should potential investments in the mining sector materialize.[6]

8. **Four essential differences underpin the current macroeconomic framework compared to the one used in the previous LIC DSA**: (i) real GDP growth is lower over the medium term reflecting the impact of the global crisis, but catches up to the trend growth of 5 percent assumed in the previous LIC DSA by 2013; (ii) exports and imports of goods and services are assumed to grow at a somewhat slower pace over the projection period, partly from lower WEO prices; (iii) nominal GDP is lower owing to the decline in inflation in 2009; and (iv) the PV of debt, everything else the same, is higher because of a lower discount rate.

9. **Risks to the macroeconomic outlook are significant**. A worsening of the political, social and security situation would endanger donor support and lead to a rapid deterioration of debt indicators. Exogenous shocks, for instance higher oil and food prices, and lower donor support would further worsen debt indicators.

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[5] The 2010 World Bank Country Economic Memorandum (CEM) for Burundi provides detailed recommendations to overcome supply-side constraints, continue to improve the regulatory environment, increase competition, enhance the country's image as a business and investment destination, and strengthen the dialogue between the government and the private sector.

[6] The development of mining will require a substantial infrastructure investment. The 2010 CEM estimated that the impact of increased infrastructure spending (as reflected in the Infrastructure Action Plan) combined with accelerated growth reforms could potentially lead to higher growth rate averaging about 8.5 percent for the period 2010–15.

Box 1: Burundi: Main Macroeconomic Assumptions, 2010–30

Real GDP growth is expected to accelerate to 5 percent over the medium term reflecting the consolidation of peace, the easing of infrastructure bottlenecks, the reform of the coffee sector, and EAC integration. Average growth over the projection period is expected to be about 4.9 percent, compared with an average of 4.2 percent during 2006–09. Investment is expected to average about 22 percent of GDP, a level considered to be supportive of long-term economic growth. Key areas include infrastructure rehabilitation (power, transport, and communications) to address existing bottlenecks and export-generating activities such as tourism and mining.

Inflation is assumed to decline gradually over the medium term and stabilize at about 5 percent over the long term, in line with the EAC convergence criterion.

Fiscal policy would be supportive of economic growth and poverty reduction, while safeguarding debt sustainability and macroeconomic stability.

- **Revenues**, excluding grants, are projected to increase gradually to about 21 percent of GDP over the end of the projection period. This increase reflects primarily a widening of the tax base as a result of continued tax administration reforms.
- **Primary expenditure** is expected to gradually decline over time to about 31 percent of GDP. This path is consistent with a gradual reduction of current spending in favor of higher pro-poor spending. Public investment is expected to gradually decline over time to about 15 percent of GDP while private investment gradually rises as the private sector becomes the engine of growth.

Exports of goods and services are projected to increase by an average of 12.4 percent over the medium term reflecting the impact of coffee sector reforms; they are projected to increase by 8 percent over the longer term as investment in new export sectors (horticulture, mining, and tourism) begins to yield results. In volume terms, exports of goods are projected to stabilize at about 5.5 percent over the medium term, before gradually declining to about 4.5 percent in the later years.

Imports of goods and services will decelerate from an average of about 7 percent over the medium term to the more sustainable rate of about 3 percent over the longer term. With emergency and reconstruction-related imports winding down, merchandise import volumes are expected to move broadly in line with real GDP growth in the later years.

The current account deficit, including grants, is expected to stay at about 10 percent of GDP over the medium term. It will subsequently deteriorate as official transfers begin to wane, before declining gradually to about 8 percent at the end of the projection period. Excluding transfers, the current account deficit is expected to decline from 29 percent of GDP in 2010 to about 11 percent at the end of the projection period. The authorities will rely largely on grants and highly concessional loans to finance the current account deficit.

External financing will rely increasingly on loans in the long term, as grants' share of total financing gradually subsides. Grant support is assumed to decline from 28 percent of GDP in 2010 to about 20 percent in 2016 as humanitarian assistance gradually declines. Loans are assumed to gradually decline from about 3 percent of GDP in 2010 to about 1 percent in the later years. Borrowing is assumed to be on highly concessional terms.

III. External DSA

10. **Under the baseline scenario, there is a protracted and sizable breach of the PV of debt-to-exports indicative threshold**. The PV of debt-to-exports ratio will remain well above the 100 percent threshold throughout the projection period.[7] During 2011–13, this ratio will exceed the indicative threshold by at least 100 percentage points. In contrast, the PV of debt-to-GDP, the PV of debt-to-revenues, the debt service to exports ratio, and the debt service to revenue ratios are expected to remain well below the indicative country-specific thresholds throughout the projection period (Text Table 5 and Table 1).[8]

Text Table 5. Burundi: Summary of Baseline External Debt Sustainability Indicators

(percent)

	Indicative Threshold	2010	2020	2030	Average 2010-30
PV of debt to GDP	30	13.5	13.3	11.3	13.4
PV of debt to exports	100	191.2	148.7	107.8	156.5
PV of debt to revenue	200	73.9	63.9	54.0	65.8
Debt service to exports	15	2.5	5.8	4.6	6.0
Debt service to revenues	25	1.0	2.5	2.3	2.5

Source: Burundian authorities; and Bank-Fund staff estimates and projections.

11. **Alternative scenarios and stress tests highlight the risk of further deterioration in the PV of debt-to-exports ratio**. The most severe breach of the indicative threshold for the PV of debt-to-exports ratio occurs under a combination of growth, export, inflation, and FDI/transfers shock (Table 2, test B5). Under these circumstances, the PV of debt-to-exports ratio at the end of the projection period is higher by about 120 percentage points compared to the baseline scenario. This result underscores the importance of improvements in the business environment to encourage investment flows, continued governance reforms to safeguard donor support, and export diversification to reduce vulnerability to shocks. The alternative scenario based on new borrowing at higher interest rates (Table 2, scenario A2) shows that there is a protracted deterioration in Burundi's PV of debt-to-exports ratio compared to the baseline scenario. This result underscores the need for continued reliance on grants and highly concessional financing. Finally, the historical scenario (Table 2, scenario A1) suggests a sizable and protracted deterioration of the PV of debt-to-exports ratio. While important, the

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[7] The latest World Bank Country Policy and Institutional Assessment (CPIA) rates Burundi as a poor performer. The three-year moving average CPIA for 2007–09 is 3.05. A rating below 3.25 corresponds to a poor policy performance, according to the LIC Debt Sustainability Framework (DSF).

[8] Debt service rises during 2012-16 because of principal payments falling due. In later years, debt service rises reflecting the end of the grace period for new borrowing.

results of the historical scenario should be interpreted with caution, given Burundi's history of conflict.[9]

12. **Alternative scenarios and stress tests suggest that almost all other debt indicators will exceed their indicative debt burden thresholds**. The threshold for the PV of debt-to-GDP ratio will be breached under the lower non–debt-creating flows, and combination stress tests (Table 2, tests B4 and B5) by a modest amount over a protracted period. The threshold for the PV of debt-to-revenues ratio will be breached marginally under a combination stress test (Table 2, scenario B5) for one year only. The indicative threshold for the debt service to exports ratio will be breached by a small margin during 2013–16 under the combination stress test (Table 2, scenario B5). A similar breach occurs under the historical exports stress test (Table 2, scenario B2).[10] Finally, the indicative threshold for the debt service to revenues ratio is the only one that is not breached under any alternative scenario and stress test.

13. **Improving Burundi's export capacity is critical for debt sustainability**. To illustrate the steps needed to achieve debt sustainability, staffs prepared a customized scenario (Table 2, scenario A3) based on higher donor support to finance export generating projects. More specifically, the scenario assumes an increase in project grants by 1 percentage point of GDP relative to the baseline scenario during 2010–15. As a result of the additional capital investment, export volume increases by an average of 7 percent throughout the projection period, leading to an increase in real GDP growth by about 0.2 percentage point of GDP. Under this scenario, the PV of debt-to-exports ratio falls below the indicative threshold by 2019. By the end of the projection period, the PV of debt-to-exports ratio is lower by about 40 percentage points compared to the baseline scenario. All other stock and liquidity indicators remain well below their indicative thresholds.

14. **In staffs' view Burundi faces a high risk of debt distress**. The preceding analysis suggests there is a sizable and protracted breach of the PV of debt-to-exports threshold under the baseline scenario, while alternative scenarios and stress tests suggest that all but one debt burden thresholds are likely to be breached under less favorable scenarios and shocks.[11]

15. **The authorities broadly share staffs' assessment**. They have expressed their commitment to continue to rely on highly concessional loans and grants to meet their financing needs, while advancing structural reforms to boost export capacity.

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[9] This argument applies also to stress tests. In particular, the standardized stress test assuming export value growth at historical average minus one standard deviation in 2011–12 results in a sharp reduction of exports. The reason is the large standard deviation of exports reflecting the country's conflict, and export cyclicality (primarily owing to the old age of coffee trees).

[10] See footnote 9.

[11] Remittances cannot be used as a determinant of the risk of debt distress because the breach of the PV of debt-to-exports ratio under the baseline scenario is protracted.

IV. PUBLIC DSA

16. **Public debt indicators are expected to gradually improve under the baseline scenario.** The improvement is due primarily to a decline in the public sector borrowing requirement, reflecting the widening of the revenue base and the gradual decline in government spending in the post reconstruction period. The ratios of the PV of public debt to GDP and public debt to revenues are low reflecting Burundi's reliance on grants and highly concessional loans to finance reconstruction and poverty reduction.

17. **The alternative scenarios and stress tests show that public debt indicators can worsen rapidly, especially in the absence of fiscal consolidation, and lower economic growth.** Under the scenario of an unchanged primary balance from 2010 (Table 4, scenario A2), the PV of-debt-to revenues and the PV of debt-to-GDP ratios at the end of the projection period will be more than double the corresponding ratios under the baseline scenario. This result highlights the need for fiscal prudence and avoidance of past unsustainable borrowing policies. Preparation of a medium-term debt strategy will be essential for anchoring future policy. Similarly, under a permanently lower growth scenario (Table 4, scenario A3), the PV of debt-to-revenue and the PV of debt-to-GDP ratios at the end of the projection period will be nearly double the corresponding ratios under the baseline scenario. Similar results are evident when growth is lower than the average historical rate (Table 4, test B1), and when lower growth is combined with a higher primary deficit (Table 4, test B3).[12] The debt service to revenue ratio is not significantly affected by alternative scenarios and shocks because additional borrowing is on highly concessional terms.

V. CONCLUSION

18. **Burundi will continue to face a high risk of debt distress.** The PV of external debt-to-exports ratio will exceed the country-specific debt burden threshold by a wide margin throughout the projection period. In addition, under alternative scenarios and stress tests all but one debt indicators exceed the country-specific debt burden thresholds. To mitigate risks to debt sustainability, staffs encourage the authorities to continue to rely on grants and highly concessional loans to meet financing needs, and further strengthen debt management. In addition, staffs advise the authorities to intensify structural reforms in order to diversify the export base, address existing infrastructure bottlenecks that hinder growth, and encourage private sector development by improving the business environment. Finally, staffs urge the authorities to continue efforts to improve tax administration and widen the tax base to reduce reliance on foreign financing.

[12] The caveat concerning the suitability of the historical scenario in a country marred by conflict applies.

Table 1.: External Debt Sustainability Framework, Baseline Scenario, 2007-30 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation	Projections									
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-2015 Average	2020	2030	2016-2030 Average
External debt (nominal) 1/	155.0	134.2	27.4			29.4	31.3	31.0	30.2	29.7	29.3		25.4	19.4	
o/w public and publicly guaranteed (PPG)	155.0	134.2	27.4			29.4	31.3	31.0	30.2	29.7	29.3		25.4	19.4	
Change in external debt	-0.9	-20.8	-106.8			2.0	1.9	-0.3	-0.8	-0.5	-0.4		-0.9	-0.5	
Identified net debt-creating flows	-1.3	-23.1	-11.7			-2.4	-2.3	-2.4	-1.0	-1.2	-1.3		-2.0	-1.3	
Non-interest current account deficit	15.3	12.2	14.4	7.7	5.9	8.9	9.8	9.5	10.2	10.1	10.0		10.8	8.1	9.6
Deficit in balance of goods and services	39.8	40.1	30.7			33.6	33.3	31.6	30.5	29.5	28.9		23.5	12.9	
Exports	8.6	8.2	6.6			7.1	5.6	7.3	7.5	8.2	8.1		8.9	10.5	
Imports	48.3	48.4	37.3			40.7	38.9	39.0	38.0	37.7	36.9		32.4	23.4	
Net current transfers (negative = inflow)	-24.6	-28.3	-15.7	-18.8	8.2	-25.1	-23.8	-22.5	-20.6	-19.8	-19.2		-12.9	-7.4	-11.3
o/w official	-21.6	-20.3	-10.7			-20.1	-19.0	-17.7	-16.0	-15.2	-14.6		-7.8	-2.9	
Other current account flows (negative = net inflow)	0.2	0.3	-0.6			0.4	0.3	0.4	0.3	0.3	0.3		0.2	2.6	
Net FDI (negative = inflow)	-8.1	-10.1	-9.5	-5.5	3.2	-10.5	-11.0	-10.7	-9.9	-10.0	-10.0		-11.7	-8.6	-10.2
Endogenous debt dynamics 2/	-8.5	-25.2	-16.6			-0.9	-1.1	-1.3	-1.3	-1.3	-1.3		-1.1	-0.8	
Contribution from nominal interest rate	0.4	0.0	0.1			0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
Contribution from real GDP growth	-5.3	-5.9	-4.1			-1.0	-1.2	-1.4	-1.4	-1.4	-1.4		-1.2	-0.9	
Contribution from price and exchange rate changes	-3.6	-19.4	-12.6			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	0.4	2.3	-95.1			4.5	4.2	2.1	0.2	0.7	0.9		1.1	0.8	
o/w exceptional financing	-5.9	-7.9	-88.8			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	11.7			13.5	15.1	15.2	14.9	14.7	14.6		13.3	11.3	
In percent of exports	...	...	178.0			191.2	270.0	207.2	199.8	180.3	180.7		148.7	107.8	
PV of PPG external debt	...	...	11.7			13.5	15.1	15.2	14.9	14.7	14.6		13.3	11.3	
In percent of exports	...	...	178.0			191.2	270.0	207.2	199.8	180.3	180.7		148.7	107.8	
In percent of government revenues	...	...	62.8			73.9	80.5	78.1	75.6	73.9	72.3		63.9	54.0	
Debt service-to-exports ratio (in percent)	6.8	3.5	1.9			2.5	5.4	9.1	10.2	10.1	9.3		5.8	4.6	
PPG debt service-to-exports ratio (in percent)	6.8	3.5	1.9			2.5	5.4	9.1	10.2	10.1	9.3		5.8	4.6	
PPG debt service-to-revenue ratio (in percent)	3.1	1.5	0.7			1.0	1.6	3.4	3.9	4.2	3.7		2.5	2.3	
Total gross financing need (Millions of U.S. dollars)	76.3	27.9	66.6			-20.6	-14.1	-8.6	19.5	17.4	15.4		-11.3	-2.7	
Non-interest current account deficit that stabilizes debt ratio	16.2	33.1	121.2			6.9	7.9	9.8	11.0	10.6	10.4		11.7	8.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	3.6	4.5	3.5	2.7	2.4	3.9	4.5	4.8	5.0	5.0	5.0	4.7	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	2.4	14.3	10.4	2.9	10.8	6.2	3.3	1.5	2.0	1.4	1.5	2.7	1.3	1.1	1.2
Effective interest rate (percent) 5/	0.3	0.0	0.1	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.6
Growth of exports of G&S (US dollar terms, in percent)	-10.2	14.7	-8.9	5.6	21.9	18.7	-14.4	38.7	9.1	16.6	5.6	12.4	9.1	7.4	8.1
Growth of imports of G&S (US dollar terms, in percent)	5.5	19.6	-12.0	16.6	18.7	20.4	3.2	6.4	4.4	5.8	4.4	7.4	3.4	2.2	3.1
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	41.7	41.4	50.8	50.8	50.8	50.8	47.7	50.8	50.8	50.8
Government revenues (excluding grants, in percent of GDP)	18.6	18.5	18.6			18.3	18.8	19.4	19.7	19.9	20.2		20.8	21.0	20.8
Aid flows (in Millions of US dollars) 7/	226.5	322.3	1088.1			451.6	432.1	466.4	459.9	459.3	481.5		517.0	568.1	
o/w Grants	203.7	290.1	1074.7			411.4	394.2	426.5	421.7	420.5	439.9		489.1	517.2	
o/w Concessional loans	22.8	32.3	13.4			40.2	37.9	39.9	38.2	38.9	41.7		28.0	50.9	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			29.7	26.4	26.5	24.5	22.9	22.5		18.0	10.7	15.3
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			92.6	92.5	95.8	95.9	95.8	95.7		97.3	95.6	96.5
Memorandum items:															
Nominal GDP (Millions of US dollars)	975.1	1164.7	1330.4			1467.3	1583.5	1683.9	1804.0	1922.0	2048.1		2796.1	5086.9	
Nominal dollar GDP growth	6.1	19.4	14.2			10.3	7.9	6.3	7.1	6.5	6.6	7.5	6.3	6.1	6.3
PV of PPG external debt (in Millions of US dollars)			155.5			194.5	231.2	248.9	263.9	277.7	293.9		365.0	566.6	
(PVt-PVt-1)/GDPt-1 (in percent)						2.9	2.5	1.1	0.9	0.8	0.8	1.5	0.5	0.5	0.6
Gross remittances (Millions of US dollars)	29.2	94.3	69.4			76.0	79.4	83.2	87.4	91.8	96.4		146.3	237.5	
PV of PPG external debt (in percent of GDP + remittances)	...	...	11.1			12.8	14.4	14.4	14.2	14.0	13.9		12.6	10.8	
PV of PPG external debt (in percent of exports + remittances)	...	...	99.2			110.3	142.5	123.6	121.1	113.7	114.2		93.7	74.7	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	1.1			1.4	2.8	5.4	6.2	6.4	5.9		3.7	3.2	

Sources: Burundian authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g)]/(1+g+\rho+g\rho)$ 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.

The large residual in 2009 reflects the HIPC Initiative and MDRI debt relief.

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

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

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

7/ Defined as grants, concessional loans, and debt relief. Concessional loans are defined as having a grant element of at least 50 percent, as currently mandated under the ECF-supported program.

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 2a.Burundi: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-30
(In percent)

		Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of debt-to GDP ratio								
Baseline	14	15	15	15	15	15	13	11
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-30 1/	14	17	19	20	21	22	27	34
A2. New public sector loans on less favorable terms in 2010-30 2/	14	16	16	17	17	18	18	18
A3. Improved export capacity	13	14	13	12	11	11	9	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-12	14	15	16	16	16	16	14	12
B2. Export value growth at historical average minus one standard deviation in 2011-12 3/	14	15	16	16	16	16	14	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-12	14	16	18	18	18	18	16	14
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-12 4/	14	26	36	35	35	34	30	19
B5. Combination of B1-B4 using one-half standard deviation shocks	14	26	39	38	37	37	32	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	14	21	21	21	20	20	18	16
PV of debt-to-exports ratio								
Baseline	191	270	207	200	180	181	149	108
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-30 1/	191	297	255	263	252	267	305	327
A2. New public sector loans on less favorable terms in 2010-30 2/	191	276	225	227	213	220	204	169
A3. Improved export capacity	175	226	169	155	132	123	90	71
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-12	191	260	202	196	177	178	146	106
B2. Export value growth at historical average minus one standard deviation in 2011-12 3/	191	268	381	369	333	333	272	190
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-12	191	260	202	196	177	178	146	106
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-12 4/	191	464	498	476	425	420	336	181
B5. Combination of B1-B4 using one-half standard deviation shocks	191	380	606	581	519	514	412	226
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	191	260	202	196	177	178	146	106
PV of debt-to-revenue ratio								
Baseline	74	80	78	76	74	72	64	54
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-30 1/	74	88	96	100	103	107	131	164
A2. New public sector loans on less favorable terms in 2010-30 2/	74	82	85	86	87	88	88	84
A3. Improved export capacity	73	73	68	62	57	52	41	37
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-12	74	81	83	81	79	77	68	58
B2. Export value growth at historical average minus one standard deviation in 2011-12 3/	74	78	85	82	80	78	69	56
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-12	74	87	94	92	90	88	78	65
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-12 4/	74	138	188	180	174	168	145	90
B5. Combination of B1-B4 using one-half standard deviation shocks	74	136	202	194	188	181	156	100
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	74	109	107	105	102	100	89	75

Table 2b. Burundi: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-30 (concluded)
(In percent)

Debt service-to-exports ratio								
Baseline	2	5	9	10	10	9	6	5
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-30 1/	2	5	10	11	11	11	8	12
A2. New public sector loans on less favorable terms in 2010-30 2/	2	5	10	11	12	11	7	8
A3. Improved export capacity	2	5	8	9	9	8	5	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-12	2	5	9	10	10	9	6	5
B2. Export value growth at historical average minus one standard deviation in 2011-12 3/	2	5	15	18	18	16	10	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-12	2	5	9	10	10	9	6	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-12 4/	2	5	11	14	13	12	8	10
B5. Combination of B1-B4 using one-half standard deviation shocks	2	5	14	18	17	16	10	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	2	5	9	10	10	9	6	5
Debt service-to-revenue ratio								
Baseline	1	2	3	4	4	4	3	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-30 1/	1	2	4	4	5	4	3	6
A2. New public sector loans on less favorable terms in 2010-30 2/	1	2	4	4	5	5	3	4
A3. Improved export capacity	1	2	3	4	4	4	2	1
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-12	1	2	4	4	5	4	3	2
B2. Export value growth at historical average minus one standard deviation in 2011-12 3/	1	2	3	4	4	4	3	2
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-12	1	2	4	5	5	5	3	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-12 4/	1	2	4	5	5	5	3	5
B5. Combination of B1-B4 using one-half standard deviation shocks	1	2	5	6	6	6	4	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	1	2	5	5	6	5	4	3
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	48	48	48	48	48	48	48	48

Sources: Burundian 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/ The standardized stress test of assuming export value growth at historical average minus one standard deviation is not relevant for a country like Burundi which experienced conflict and whose exports suffer from cyclical factors.

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 3.Burundi: Public Sector Debt Sustainability Framework, Baseline Scenario, 2007-30
(In percent of GDP, unless otherwise indicated)

	Actual			Average 5/	Standard Deviation	Estimate	Projections								
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030	2016-30 Average
Public sector debt 1/	177.8	153.9	48.2			50.7	51.0	47.3	43.8	41.1	38.8		31.9	22.6	
o/w foreign-currency denominated	155.0	134.2	27.4			29.4	31.3	31.0	30.2	29.7	29.3		25.4	19.4	
Change in public sector debt	-2.5	-23.9	-105.7			2.5	0.4	-3.8	-3.5	-2.7	-2.4		-1.4	-0.7	
Identified debt-creating flows	-5.0	-28.9	-84.1			-1.2	-1.0	-2.4	-2.7	-1.8	-1.6		-2.0	-1.5	
Primary deficit	-3.2	-0.5	-61.2	-6.1	19.4	2.6	2.8	1.6	0.8	0.9	0.9	1.6	-0.1	-0.2	0.1
Revenue and grants	39.5	43.4	99.4			46.3	43.7	44.7	43.1	41.8	41.7		38.2	31.2	
of which: grants	20.9	24.9	80.8			28.0	24.9	25.3	23.4	21.9	21.5		17.5	10.2	
Primary (noninterest) expenditure	36.4	42.9	38.2			48.9	46.5	46.3	43.9	42.7	42.6		38.2	31.0	
Automatic debt dynamics	-1.0	-28.3	-23.0			-3.8	-3.8	-4.0	-3.6	-2.7	-2.5		-1.9	-1.3	
Contribution from interest rate/growth differential	-10.1	-13.9	-8.0			-3.0	-3.8	-3.8	-3.3	-2.8	-2.6		-2.1	-1.5	
of which: contribution from average real interest rate	-3.9	-6.2	-2.8			-1.2	-1.7	-1.5	-1.1	-0.7	-0.7		-0.5	-0.4	
of which: contribution from real GDP growth	-6.2	-7.7	-5.2			-1.8	-2.2	-2.3	-2.3	-2.1	-2.0		-1.6	-1.1	
Contribution from real exchange rate depreciation	9.1	-14.4	-15.0			-0.8	0.0	-0.2	-0.2	0.1	0.1		...	...	
Other identified debt-creating flows	-0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.8	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)	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	2.5	5.0	-21.6			3.7	1.4	-1.3	-0.8	-0.8	-0.8		0.6	0.8	
Other Sustainability Indicators															
PV of public sector debt	22.7	19.7	32.5			34.8	34.9	31.5	28.5	26.1	24.0		19.7	14.5	
o/w foreign-currency denominated	0.0	0.0	11.7			13.5	15.1	15.2	14.9	14.7	14.6		13.3	11.3	
o/w external	...	...	11.7			13.5	15.1	15.2	14.9	14.7	14.6		13.3	11.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	-0.9	1.0	-60.1			3.4	3.7	2.8	2.1	2.1	2.0		0.6	0.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	57.6	45.3	32.7			75.1	79.8	70.3	66.1	62.5	57.7		51.6	46.7	
PV of public sector debt-to-revenue ratio (in percent)	122.1	106.1	174.5			190.1	185.4	162.2	144.7	131.3	119.1		95.0	69.3	
o/w external 3/	...	...	62.8			73.9	80.5	78.1	75.6	73.9	72.3		63.9	54.0	
Debt service-to-revenue and grants ratio (in percent) 4/	5.8	3.5	1.0			1.7	2.0	2.6	2.8	2.9	2.7		1.9	1.7	
Debt service-to-revenue ratio (in percent) 4/	12.3	8.1	5.5			4.4	4.7	6.1	6.1	6.1	5.5		3.5	2.6	
Primary deficit that stabilizes the debt-to-GDP ratio	-0.6	23.4	44.5			0.1	2.5	5.4	4.3	3.6	3.3		1.3	0.5	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	3.6	4.5	3.5	2.7	2.4	3.9	4.5	4.8	5.0	5.0	5.0	4.7	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	0.3	0.0	0.1	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.6
Average real interest rate on domestic debt (in percent)	-0.2	-14.5	-7.6	-5.3	6.4	-5.3	-6.6	-5.5	-4.1	-2.7	-2.6	-4.5	-2.6	-3.3	-2.8
Real exchange rate depreciation (in percent, + indicates depreciation)	6.2	-9.9	-11.7	-0.3	12.9	-3.2	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	8.2	25.1	14.1	10.9	6.8	8.3	9.4	8.0	6.5	5.0	5.0	7.0	4.7	4.5	4.7
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.2	-0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	41.7	41.4	50.8	50.8	50.8	50.8	47.7	50.8	50.8	50.8

Sources: Burundian authorities; and staff estimates and projections.

1/ General government, on a gross basis.

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 derived over the past 10 years.

Table 4. Burundi: Sensitivity Analysis for Key Indicators of Public Debt 2010-30

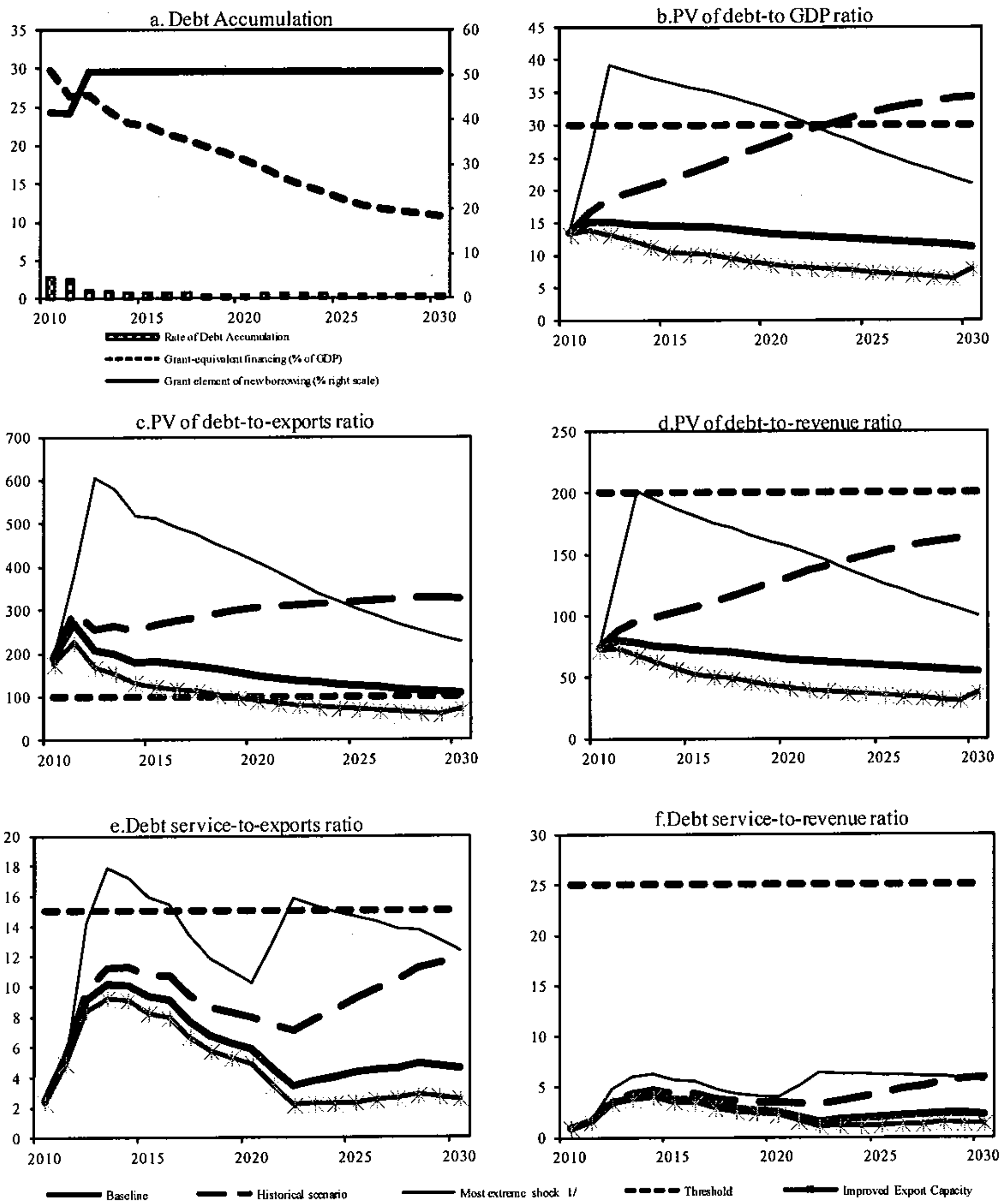
		Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of Debt-to-GDP Ratio								
Baseline	35	35	31	28	26	24	20	15
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	35	34	30	27	25	22	19	19
A2. Primary balance is unchanged from 2010	35	35	32	30	29	27	29	35
A3. Permanently lower GDP growth 1/	35	35	32	29	27	25	24	28
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-12	35	37	36	33	32	31	30	32
B2. Primary balance is at historical average minus one standard deviations in 2011-12	35	34	31	28	26	24	19	14
B3. Combination of B1-B2 using one half standard deviation shocks	35	35	32	29	28	26	25	26
B4. One-time 30 percent real depreciation in 2011	35	40	36	33	30	27	22	17
B5. 10 percent of GDP increase in other debt-creating flows in 2011	35	41	37	34	32	29	24	17
PV of Debt-to-Revenue Ratio 2/								
Baseline	75	80	70	66	63	58	52	47
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	75	77	66	61	57	51	44	52
A2. Primary balance is unchanged from 2010	75	79	71	69	68	66	75	113
A3. Permanently lower GDP growth 1/	75	80	71	67	64	60	61	86
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-12	75	82	76	74	73	70	77	99
B2. Primary balance is at historical average minus one standard deviations in 2011-12	75	78	69	65	62	57	51	46
B3. Combination of B1-B2 using one half standard deviation shocks	75	78	69	66	64	61	64	81
B4. One-time 30 percent real depreciation in 2011	75	93	81	76	71	65	58	54
B5. 10 percent of GDP increase in other debt-creating flows in 2011	75	93	83	79	75	70	64	55
Debt Service-to-Revenue Ratio 2/								
Baseline	2	2	3	3	3	3	2	2
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	2	2	3	3	3	3	2	1
A2. Primary balance is unchanged from 2010	2	2	3	3	3	3	2	4
A3. Permanently lower GDP growth 1/	2	2	3	3	3	3	2	3
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-12	2	2	3	3	3	3	2	4
B2. Primary balance is at historical average minus one standard deviations in 2011-12	2	2	3	3	3	3	2	2
B3. Combination of B1-B2 using one half standard deviation shocks	2	2	3	3	3	3	2	3
B4. One-time 30 percent real depreciation in 2011	2	2	3	4	4	4	3	3
B5. 10 percent of GDP increase in other debt-creating flows in 2011	2	2	3	3	3	3	2	3

Sources: Burundian 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.

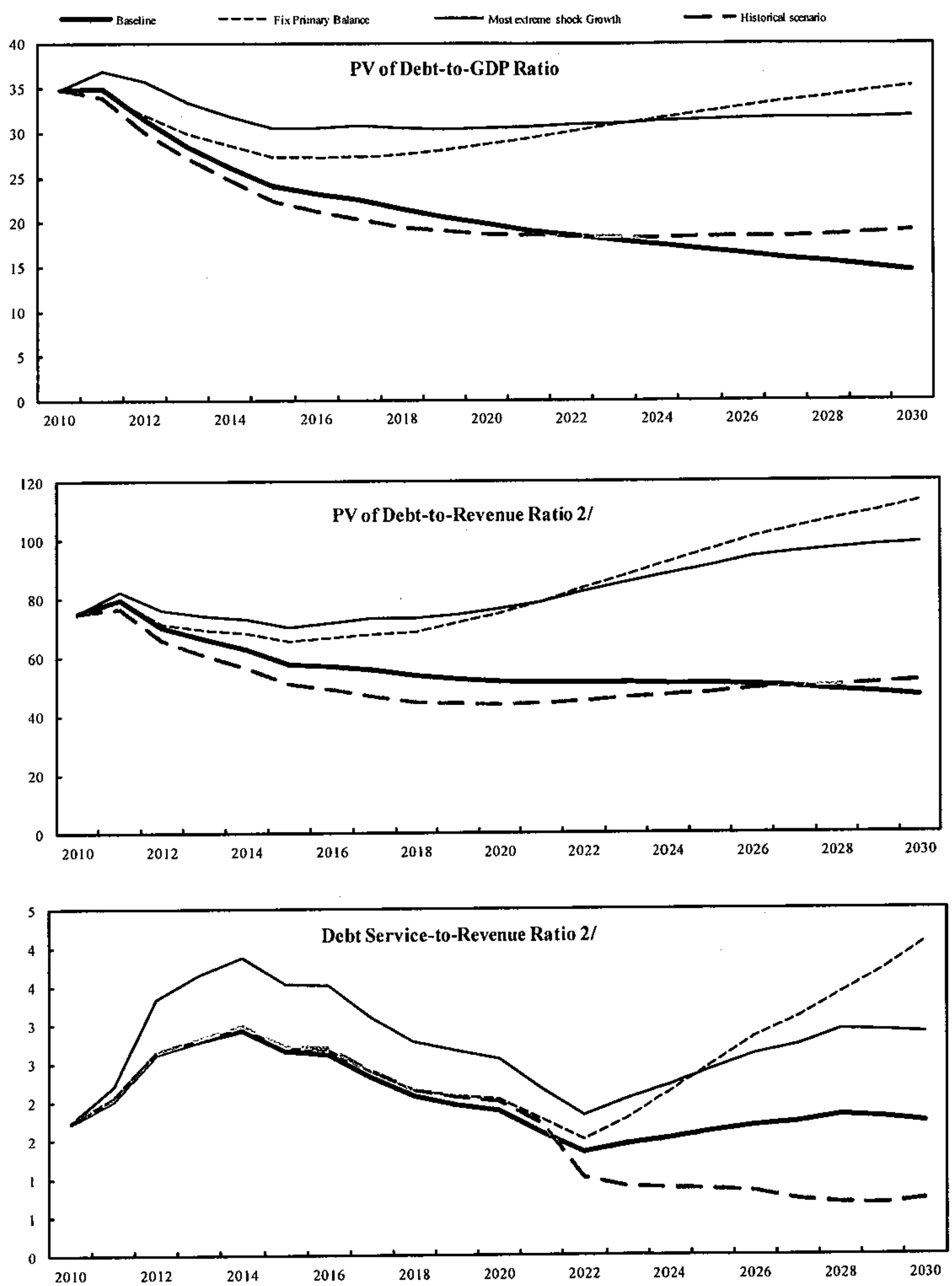
Figure 1. Burundi: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2010-30 1/



Sources: Burundian authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2020. In figure b. it corresponds to a Combination shock; in c. to a Combination shock; in d. to a Combination shock; in e. to a Combination shock and in figure f. to a Combination shock

Figure 2.Burundi: Indicators of Public Debt Under Alternative Scenarios, 2010-30 1/



Sources: Burundian authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2020.
2/ Revenues are defined inclusive of grants.