ZIMBABWE

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JOINT IMF/WORLD BANK DEBT SUSTAINABILITY ANALYSIS[1]

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Based on the external LIC DSA, Zimbabwe is in debt distress. The public DSA suggests that Zimbabwe's overall public debt is unsustainable in light of the fiscal policy implementation and the current size and evolution of the debt stock. The authorities broadly agreed with these conclusions. Under a country-specific alternative upside scenario, debt burden indicators would decline faster but the country's external debt ratios would still remain above indicative thresholds.

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[1] This exercise was guided by the Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries (SM/10/16).

BACKGROUND

1. **Zimbabwe is in debt distress, with arrears to most of its creditors continuing to build up.** At end-2010, total external debt is estimated at $8.8 billion or 118 percent of GDP (Table 1). Total public and publicly-guaranteed (PPG) external debt is estimated at $7.1 billion or 95 percent of GDP, with 77 percent of GDP in arrears. Most PPG external debt is medium- to long-term and owed to official creditors. Zimbabwe's overdue financial obligations to IFIs include the World Bank ($807 million), African Development Bank ($510 million), EIB ($239 million) and the IMF ($134 million).

Zimbabwe: 2010 External Debt Stock (in million US dollars) 1/

	Remaining Principal Due	Total Arrears	Principal Arrears	Total Debt
Total	**2,873**	**5,950**	**3,605**	**8,823**
MLT Debt	1,880	4,891	2,708	**6,770**
Bilateral Creditors	747	2,296	1,307	**3,043**
of which:				
Paris Club	532	2,117	1,183	**2,649**
Non-Paris Club	215	179	124	**394**
Multilateral institutions	637	2,015	1,265	**2,652**
IMF	0	134	109	**134**
AfDB	72	510	278	**582**
WB	438	807	499	**1,246**
EIB	67	239	145	**306**
Others	59	325	233	**384**
Private Creditors	496	580	135	**1,076**
Short-Term Debt	993	678	611	**1,671**
Suppliers credits	0	313	286	**313**

Sources: WB, AfDB, Zimbabwean authorities, and staff estimates.
1/ For the multilateral institutions, short-term debt, and suppliers credits, estimates reflect compound factor; late interest is included under interest arrears.

2. **While domestic public debt remains a comparatively small component of the total, it is, nevertheless, another source of vulnerability.** The domestic debt incurred by the Reserve Bank of Zimbabwe (RBZ) is estimated at about $690 million at end-February 2011. This figure is only an estimate, and could prove to be larger, if new liabilities of the central bank and its subsidiaries are identified. Unidentified domestic contingent liabilities within the parastatal sector are another source of potential downside risks.

3. **Zimbabwe's debt sustainability analysis (DSA) suffers from significant data shortcomings.** The authorities are currently reconciling their debt stock and debt service data with individual creditors, with significant differences remaining. As a result, this DSA is largely based on non-reconciled official debt numbers, and where available, data collected directly from individual creditors, as well as staff estimates of accrued interest and penalties on arrears. In light of these factors, the results of this exercise should be treated with caution.

MACROECONOMIC AND FINANCING ASSUMPTIONS

4. **The baseline scenario assumes a more positive macroeconomic outlook largely due to more favorable external environment compared with the previous DSA, but a weakening policy stance is increasing downside risks.**[2] Significantly higher export commodity prices and the resumption of official diamond trade have improved the outlook for real GDP and export growth. However, somewhat weaker fiscal discipline, the fast-track approach to mining indigenization,[3] and uncertainties on ownership requirements in other sectors may undermine investors' confidence and discourage new private capital inflows. The government's contracting of non-concessional loans[4] would continue to worsen the debt outlook and complicate the normalization of the authorities' relationship with the donor community. Annual real GDP growth is projected to average about 4.7 percent for the period 2010–15 and about 3 percent for 2016–30 (Box 1). The external current account deficit, net of interest, is projected to improve from 18 percent of GDP in 2010 to about 3 percent in 2015, in part due to the impact of higher commodity prices on exports and volumes.[5]

5. **It is assumed that the central government would run deficits in 2011 and 2012, financed by recently contracted non-concessional loans, but would maintain a balanced cash budget in the medium and long terms.** *Central government revenues* are projected to be broadly stable at around 28 percent of GDP over the long term, slightly below the current level. Customs revenues are anticipated to decline, as Zimbabwe simplifies its tariff structure in line with its commitments under regional trade agreements. Other revenues are expected to remain broadly unchanged relative to GDP. *On the expenditure side*, the baseline scenario projects only a very marginal increase in fiscal space for nonwage expenditures, and the continuation of large financial support for parastatals. Although the employment costs to GDP ratio is projected to decline slightly, it would continue to claim a high ratio of total revenues. Therefore, both nonwage current expenditure and public investment would remain constrained over the medium to long term.

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[2] See SM/10/108, Supplement 1. Albeit not a joint World Bank-IMF DSA, this analysis compares with the previous analysis included in the 2010 Article IV report. The baseline scenario is referred to as the unchanged policies scenario in the 2011 Article IV report.

[3] Under the Indigenization legislation, in the mining sector, a sector-specific ownership threshold of 51 percent should be met by September 25, 2011 for all firms regardless of their value.

[4] On March 21, 2011, the government contracted nonconcessional loans from the China Exim Bank amounting to US$566 million for agricultural equipment, medical equipment and supplies, and rehabilitation of water and sewage treatment plants. The terms of these loans are: i) interest rate of 6 months LIBOR plus 3 percent; ii) down payment of 10 percent; iii) management fee of 0.375 percent; and iv) commitment fee of 0.375 percent.

[5] There is a structural break in the trade data in 2010. The Reserve Bank of Zimbabwe (RBZ) shifted to the use of customs data for exports and imports. In prior years, the main source of trade data was the Exchange Control Department of the RBZ.

Box 1 Key Macroeconomic Assumptions: Baseline Scenario

- Real GDP is projected to grow by about 4.7 percent in the medium term and 3 percent in the long term. Growth is projected to decelerate mainly due to a sharp slowdown in mining, which would be caused by the recently announced fast-track indigenization. Slow progress in addressing structural bottlenecks, including relatively high public wage costs, poorly maintained infrastructure, and a poor business climate, is expected to pose constraints to higher growth in other sectors. Inflation would remain contained at an average of about 5 percent in the medium to long term.

- Donor support is assumed to be confined to humanitarian assistance. It is also assumed that the end-2010 arrears will remain unresolved and new projected debt service payments on PPG external debt will fall into arrears over the entire projection period.1/ No debt relief is expected under the baseline scenario.

- FDI, portfolio investment, and private sector borrowing will remain limited in the medium and long term.

- Import growth would gradually decline over the long term constrained by a slackening in export growth and limited private capital inflows and lack of access to non-humanitarian assistance.

- On the fiscal sector, a financing gap of about 4.4 percent of GDP is projected in 2011 due to a likely revenue shortfall and higher-than-budgeted expenditure, to be covered mostly by further accumulation of expenditure arrears and cuts in capital expenditure.

1/ The DSA is conducted on an accrual basis.

RESULTS OF THE BASELINE DEBT SUSTAINABILITY ANALYSIS

Public and Publicly-Guaranteed External Debt Sustainability

6. **Under the baseline scenario, at end-2010, all PPG external debt indicators exceed thresholds for LICs that have low Country Policy and Institutional Assessment (CPIA) scores, except the two debt service ratios (Figure 1).**[6] Most ratios are projected to continue to exceed their respective thresholds by a wide margin in the medium term, and decline only gradually over the long term.

7. **The sensitivity analysis illustrates that Zimbabwe's unsustainable debt situation could worsen further** (Table 4)**.** Historical analysis shows that all external debt indicators could deteriorate rapidly in the medium to long term compared to the baseline scenario reflecting the country's poor macroeconomic performance in the past decade and the volatility of commodity prices. Results of the most extreme stress test

[6] Zimbabwe is considered as a country with weak institutions for the purpose of this LIC DSA with a CPIA of 2.0. The policy-based thresholds for the present value (PV) of PPG external debt are as follows: 200 percent of revenue; 100 percent of exports; and 30 percent of GDP. For debt service indicators, the ratios are 15 percent of exports and 25 percent of revenue.

show that the present value of debt-to-GDP could more than double by 2012.[7]

Public Debt Sustainability

8. **While Zimbabwe's overall public debt indicators are expected to improve over the long term, they will remain elevated.** The schedule of debt service payments will remain high. The authorities are unlikely to generate sizable primary surpluses, which would be necessary to achieve public debt sustainability. Reflecting assumed real GDP growth, the debt-to-GDP ratio is projected to gradually decline from 104 percent of GDP in 2010 to about 96 percent of GDP in 2015. The present value of public debt will fall from 119 percent of GDP to about 104 percent in 2015. Nevertheless, these ratios would remain elevated, well above sustainable levels. Debt service, including arrears, would remain unaffordable due to the large size of arrears. Results of the most extreme stress test show that the present value of the public debt-to-GDP ratio more than doubles by 2030 (Table 3).[8]

ALTERNATIVE SCENARIO

9. **An alternative scenario assumes that the government would implement strong policy measures to address existing impediments to sustainable growth.**[9] Under this scenario, debt burden indicators would decline faster than under the baseline scenario, but the country's external debt ratios would still remain above the indicative thresholds. If the government strengthens fiscal discipline, improves the quality of expenditures, ensures that the implementation of the indigenization legislation takes into account investors' concerns, presses ahead with key structural reforms, and takes forceful steps to address financial sector vulnerabilities, the country could potentially boost growth performance by about 3 percentage points relative to the baseline scenario over the medium term. This would allow debt indicators to decline faster (Tables 5-8 and Figures 3 and 4). Higher growth would be supported by a positive response of private investment in mining and industry to a better business climate. In addition, a lower wage bill would help contain wage costs and leave more resources for higher public spending on infrastructure.

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[7] The most extreme stress test is a combination shock which assumes that real GDP and export growth, the GDP deflator and net non-debt creating flows would be at their historical averages less ½ standard deviation.

[8] The most extreme stress test assumes that real GDP growth is at historical average minus one standard deviation in 2011-12.

[9] The alternative scenario is referred to as the recommended policies scenario in the 2011 Article IV report.

CONCLUSION

10. Zimbabwe is likely to remain in debt distress for the foreseeable future. Achieving debt sustainability will require a further considerable strengthening of economic policies and debt relief, which would necessitate normalization of relations with the international community. The realization of contingent liabilities, including related to the RBZ restructuring, financial sector vulnerabilities, and SOEs, could make the debt situation even worse.

Table 1 Zimbabwe: External Debt Sustainability Framework, Baseline Scenario, 2007–30 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 1/	Standard Deviation	Estimate	Projections								
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-2015 Average	2020	2030	2016-2030 Average
(1) External debt (nominal) 2/	**102.8**	**143.9**	**130.1**			**118.0**	**107.9**	**111.4**	**111.5**	**113.1**	**113.6**		**102.7**	**80.6**	
(2) o/w public and publicly guaranteed (PPG)	95.7	133.0	114.1			95.2	86.8	89.4	88.7	89.1	88.8		78.2	61.5	
(3) Change in external debt	10.1	41.2	-13.8			-12.1	-10.1	3.5	0.1	1.6	0.5		-2.6	-1.9	
(4) Identified net debt-creating flows	8.8	43.3	-11.7			13.0	8.1	8.9	5.4	5.6	5.7		4.5	2.6	
Non-interest current account deficit	**2.9**	**14.9**	**18.3**	**9.7**	**6.6**	**18.0**	**8.3**	**6.8**	**3.2**	**3.2**	**2.8**		**1.0**	**-0.5**	0.7
Deficit in balance of goods and services	8.6	26.6	31.9			29.7	21.9	18.2	14.0	13.5	12.6		7.5	2.1	
Exports	37.8	41.5	30.8			48.3	51.7	51.0	49.8	49.2	48.5		37.2	22.4	
Imports	46.4	68.1	62.7			78.0	73.6	69.2	63.7	62.7	61.1		44.8	24.5	
Net current transfers (negative = inflow)	-8.3	-14.2	-15.1	-9.7	5.0	-13.0	-16.1	-13.8	-13.2	-12.7	-12.1		-8.4	-3.9	-7.0
o/w official	-6.4	-10.8	-10.3			-8.4	-6.0	-4.0	-3.4	-2.8	-2.4		-1.6	-0.7	
Other current account flows (negative = net inflow)	2.6	2.5	1.4			1.3	2.5	2.4	2.4	2.4	2.3		1.9	1.2	
Net FDI (negative = inflow)	**-1.2**	**-1.0**	**-1.8**	**-1.3**	**0.5**	**-1.6**	**-0.8**	**-0.7**	**-0.6**	**-0.6**	**-0.6**		**-0.4**	**-0.2**	-0.3
Endogenous debt dynamics 3/	**7.1**	**29.4**	**-28.2**			**-3.4**	**0.6**	**2.8**	**2.8**	**3.0**	**3.4**		**3.8**	**3.3**	
Contribution from nominal interest rate	4.5	9.0	6.9			5.8	6.0	6.4	6.5	6.7	7.0		6.7	5.6	
Contribution from real GDP growth	3.5	21.8	-6.5			-9.2	-5.4	-3.6	-3.7	-3.8	-3.6		-2.9	-2.3	
Contribution from price and exchange rate changes	-0.8	-1.4	-28.5			...	...	...	...	...	...		...	...	
Residual (3-4) 4/	**1.3**	**-2.1**	**-2.1**			**-25.1**	**-18.2**	**-5.5**	**-5.2**	**-4.1**	**-5.2**		**-7.1**	**-4.5**	
o/w exceptional financing	-8.6	-24.1	-18.7			-8.8	-5.6	-5.3	-5.2	-5.2	-5.7		-4.2	-3.5	
PV of external debt 5/	...	...	149.0			133.5	120.1	122.4	121.5	122.2	121.9		107.6	80.9	
In percent of exports	...	...	483.6			276.5	232.3	240.0	244.2	248.6	251.4		289.2	362.0	
PV of PPG external debt	**...**	**...**	**132.9**			**110.6**	**99.0**	**100.4**	**98.6**	**98.2**	**97.1**		**83.1**	**61.8**	
In percent of exports	**...**	**...**	**431.5**			**229.2**	**191.4**	**196.8**	**198.2**	**199.7**	**200.3**		**223.4**	**276.5**	
In percent of government revenues	**...**	**...**	**830.9**			**376.1**	**339.7**	**350.5**	**345.8**	**345.4**	**342.3**		**294.0**	**218.6**	
Debt service-to-exports ratio (in percent)	**24.0**	**37.0**	**33.1**			**16.2**	**16.6**	**14.9**	**14.6**	**14.4**	**15.9**		**15.7**	**20.1**	
PPG debt service-to-exports ratio (in percent)	**23.4**	**34.7**	**26.6**			**14.6**	**13.0**	**11.3**	**11.5**	**11.7**	**13.1**		**12.9**	**16.7**	
PPG debt service-to-revenue ratio (in percent)	**231.6**	**477.6**	**51.3**			**24.0**	**23.0**	**20.2**	**20.1**	**20.2**	**22.5**		**17.0**	**13.2**	
Total gross financing need (Billions of U.S. dollars)	0.8	1.7	2.2			2.6	2.6	2.7	2.6	2.8	3.1		4.0	6.5	
Non-interest current account deficit that stabilizes debt ratio	-7.3	-26.2	32.0			30.1	18.4	3.3	3.1	1.7	2.3		3.6	1.4	
Key macroeconomic assumptions															
Real GDP growth (in percent)	-3.7	-17.7	6.0	-5.5	7.7	9.0	5.5	3.5	3.5	3.5	3.3	4.7	3.0	3.0	3.0
GDP deflator in US dollar terms (change in percent)	0.9	1.3	24.7	6.2	12.4	17.5	13.1	1.4	1.9	0.7	1.9	6.1	5.0	5.0	4.9
Effective interest rate (percent) 6/	4.7	7.3	6.3	4.7	1.3	5.7	6.1	6.2	6.1	6.3	6.5	6.1	6.9	7.3	6.9
Growth of exports of G&S (US dollar terms, in percent)	2.2	-8.4	-1.8	-3.3	6.5	100.6	27.8	3.5	2.9	3.0	3.7	23.6	2.1	3.3	2.6
Growth of imports of G&S (US dollar terms, in percent)	-3.8	22.4	21.8	5.2	10.2	59.2	12.6	-1.3	-2.9	2.6	2.5	12.1	1.1	2.2	1.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	18.0	...	...	...	...	18.0	...	...	...
Government revenues (excluding grants, in percent of GDP)	3.8	3.0	16.0			29.4	29.1	28.6	28.5	28.4	28.4		28.3	28.3	28.3
Aid flows (in Billions of US dollars) 7/	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
o/w Grants	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
o/w Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			0.0	0.8	0.6	0.0	0.0	0.0		0.0	0.0	...
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			...	18.6	...	...	...	...		...	...	...
Memorandum items:															
Nominal GDP (Billions of US dollars)	5.3	4.4	5.8			7.5	8.9	9.4	9.9	10.3	10.8		15.8	34.5	
Nominal dollar GDP growth	-2.8	-16.6	32.2			28.1	19.3	5.0	5.5	4.3	5.3	11.2	8.1	8.1	8.0
PV of PPG external debt (in Billions of US dollars)			7.8			8.3	8.8	9.4	9.7	10.1	10.5		13.1	21.3	
(PVt-PVt-1)/GDPt-1 (in percent)						8.7	7.5	6.4	3.6	3.8	3.9		4.0	3.5	
Gross remittances (Billions of US dollars)	0.0	0.1	0.2			0.3	0.8	0.8	0.8	0.9	0.9		0.9	0.9	
PV of PPG external debt (in percent of GDP + remittances)	...	...	128.6			106.9	91.0	92.4	90.9	90.6	89.6		78.6	60.2	
PV of PPG external debt (in percent of exports + remittances)	...	...	388.6			213.6	163.6	168.2	169.3	170.5	170.9		193.6	247.6	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	24.0			13.6	11.1	9.7	9.8	10.0	11.2		11.2	14.9	

Sources: Country authorities; and staff estimates and projections.

1/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability. Data on external debt was estimated based on information from the authorities, Paris Club, WB, and EIB.
2/ External private debt, and public and publicly guaranteed debt.
3/ 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.
4/ Residuals are accounted for by the following factors: (i) portfolio and equity investment, (ii) capital transfers, and (iii) errors and omissions. Exceptional financing consists primarily of the accumulation of arrears. From 2010 onwards, residuals include contributions to price and exchange rate changes.
5/ Assumes that PV of private sector debt is equivalent to its face value.
6/ Current-year interest payments divided by previous period debt stock.
7/ Defined as grants, concessional loans, and debt relief coursed through the central government budget. Except for very small amounts, all grants to Zimbabwe from 2010 onwards are assumed to be off-budget grants.
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 2 Zimbabwe: Public Sector Debt Sustainability Framework, Baseline Scenario, 2007–30

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2007	2008	2009	Average 6/	Standard Deviation	2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030	2016-30 Average
Public sector debt 1/	95.7	142.9	123.4			103.8	95.4	97.6	96.5	96.6	95.9		82.6	63.5	
o/w foreign-currency denominated	95.7	142.9	123.4			103.8	95.4	97.6	96.5	96.6	95.9		82.6	63.5	
Change in public sector debt	8.0	47.3	-19.5			-19.5	-8.4	2.2	-1.1	0.1	-0.7		-2.6	-1.5	
Identified debt-creating flows	6.5	26.8	-29.6			-22.5	-8.6	2.4	-0.9	0.4	-0.4		-2.0	-1.2	
Primary deficit	-0.3	-0.3	-0.5	0.1	2.0	0.0	4.1	2.5	-0.3	-0.3	-0.4	0.9	-0.1	0.0	-0.2
Revenue and grants	3.8	3.0	16.7			29.4	29.2	28.7	28.6	28.5	28.4		28.3	28.3	
of which: grants	0.0	0.0	0.7			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Primary (noninterest) expenditure	3.5	2.7	16.2			29.4	33.2	31.1	28.2	28.1	28.0		28.2	28.3	
Automatic debt dynamics	6.8	27.1	-29.1			-22.5	-12.7	-0.1	-0.6	0.7	0.0		-2.0	-1.2	
Contribution from interest rate/growth differential	6.8	27.1	-29.1			-22.5	-12.7	-0.1	-0.6	0.7	0.0		-2.0	-1.2	
of which: contribution from average real interest rate	3.4	6.6	-21.0			-12.3	-7.3	3.1	2.7	4.0	3.1		0.5	0.7	
of which: contribution from real GDP growth	3.3	20.5	-8.1			-10.2	-5.4	-3.2	-3.3	-3.3	-3.1		-2.5	-1.9	
Contribution from real exchange rate depreciation	0.0	0.0	0.0			...	...	...	...	...	...		...	...	
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	0.0	
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)	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/	1.5	20.5	10.1			3.0	0.2	-0.2	-0.2	-0.2	-0.2		-0.6	-0.2	
Other Sustainability Indicators															
PV of public sector debt	0.0	9.9	142.2			119.3	107.6	108.6	106.4	105.7	104.2		87.5	63.8	
o/w foreign-currency denominated	0.0	9.9	142.2			119.3	107.6	108.6	106.4	105.7	104.2		87.5	63.8	
o/w external	...	...	132.9			110.6	99.0	100.4	98.6	98.2	97.1		83.1	61.8	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 3/	10.8	18.5	13.3			7.0	10.8	8.3	5.4	5.4	6.0		4.8	3.7	
PV of public sector debt-to-revenue and grants ratio (in percent)	0.0	328.7	851.3			405.3	369.0	378.8	372.8	371.3	367.0		309.3	225.5	
PV of public sector debt-to-revenue ratio (in percent)	0.0	328.7	888.9			405.5	369.4	379.2	373.2	371.7	367.4		309.6	225.8	
o/w external 4/	...	...	830.9			376.1	339.7	350.5	345.8	345.4	342.3		294.0	218.6	
Debt service-to-revenue and grants ratio (in percent) 5/	232.9	478.4	49.5			24.0	23.0	20.2	20.0	20.2	22.4		17.0	13.2	
Debt service-to-revenue ratio (in percent) 5/	232.9	478.4	51.6			24.0	23.0	20.2	20.1	20.2	22.5		17.0	13.2	
Primary deficit that stabilizes the debt-to-GDP ratio	-8.3	-47.6	19.0			19.5	12.5	0.3	0.8	-0.5	0.3		2.5	1.4	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-3.7	-17.7	6.0	-5.5	7.7	9.0	5.5	3.5	3.5	3.5	3.3	4.7	3.0	3.0	3.0
Average nominal interest rate on forex debt (in percent)	4.7	7.1	5.3	4.5	1.2	4.7	4.7	4.8	4.8	5.0	5.2	4.9	5.7	6.2	5.7
Average real interest rate on domestic debt (in percent)	...	...	-20.4	...	...	...	-11.6	-1.4	-1.8	-0.7	-1.8	...	-4.8	-4.8	...
Real exchange rate depreciation (in percent, + indicates depreciation)	0.0	0.0	0.0	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	0.9	1.3	24.7	6.2	12.4	17.5	13.1	1.4	1.9	0.7	1.9	6.1	5.0	5.0	4.9
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.6	-0.4	5.4	1.0	3.0	1.0	0.2	0.0	-0.1	0.0	0.0	0.2	0.1	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	18.0	16.6	...	...	...	...	...	...	...

Sources: Country authorities; and staff estimates and projections.

1/ Public and publicly guaranteed debt and residents' claims on the RBZ denominated in foreign currency. For 2007, excludes local-currency denominated debt of about 1 percent of GDP.

2/ Includes accumulation of arrears. The residuals for 2007-2008 in part reflect RBZ's quasi-fiscal activities. In 2010, the residual in part reflects use of the SDR allocation. Residuals also reflect the difference in coverage between the public debt stock (PPG) and the flow variables (central government only). State-owned enterprise (SOE) debt is included only if guaranteed by the government.

3/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

4/ Revenues excluding grants.

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

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

Table 3 Zimbabwe: Sensitivity Analysis for Key Indicators of Public Debt 2010-2030

	Estimate	Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of Debt-to-GDP Ratio								
Baseline	119	108	109	106	106	104	88	64
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	119	116	125	135	147	159	214	373
A2. Primary balance is unchanged from 2010	119	104	102	100	100	99	86	63
A3. Permanently lower GDP growth 1/	119	110	114	115	118	120	129	184
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviation in 2011-2012	119	137	177	187	198	208	233	271
B2. Primary balance is at historical average minus one standard deviation in 2011-2012	119	106	106	104	104	102	86	63
B3. Combination of B1-B2 using one half standard deviation shocks	119	122	138	144	153	160	177	204
B4. One-time 30 percent real depreciation in 2011	119	153	154	151	151	149	129	101
B5. 10 percent of GDP increase in other debt-creating flows in 2011	119	118	119	116	115	114	96	69
PV of Debt-to-Revenue Ratio 1/								
Baseline	405	369	379	373	371	367	309	226
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	405	397	436	472	517	561	756	1310
A2. Primary balance is unchanged from 2010	405	355	356	351	351	348	303	221
A3. Permanently lower GDP growth 1/	405	376	396	401	413	423	454	649
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviation in 2011-2012	405	469	618	653	696	733	824	958
B2. Primary balance is at historical average minus one standard deviation in 2011-2012	405	362	371	365	364	359	303	221
B3. Combination of B1-B2 using one half standard deviation shocks	405	417	481	506	537	563	626	721
B4. One-time 30 percent real depreciation in 2011	405	525	536	529	529	525	456	356
B5. 10 percent of GDP increase in other debt-creating flows in 2011	405	403	413	407	406	401	338	245
Debt Service-to-Revenue Ratio 1/ 2/								
Baseline	24	23	20	20	20	22	17	13
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	24	26	24	26	28	35	42	76
A2. Primary balance is unchanged from 2010	24	23	20	19	19	22	17	13
A3. Permanently lower GDP growth 1/	24	23	21	21	22	25	23	34
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviation in 2011-2012	24	28	30	32	34	39	38	57
B2. Primary balance is at historical average minus one standard deviation in 2011-2012	24	23	20	20	20	22	17	13
B3. Combination of B1-B2 using one half standard deviation shocks	24	27	26	26	27	32	30	41
B4. One-time 30 percent real depreciation in 2011	24	28	29	29	30	33	27	26
B5. 10 percent of GDP increase in other debt-creating flows in 2011	24	23	22	22	22	24	18	15

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 4 Zimbabwe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-2030

(In percent)

	Estimate	Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of debt-to GDP ratio								
Baseline	111	99	100	99	98	97	83	62
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	111	116	123	131	139	148	191	277
A2. New public sector loans on less favorable terms in 2010-2030 2	111	101	103	101	101	100	86	66
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	111	121	147	143	140	137	113	82
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	111	115	138	133	126	119	80	55
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	111	118	128	125	123	120	99	72
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	111	111	122	117	113	107	78	55
B5. Combination of B1-B4 using one-half standard deviation shocks	111	166	239	229	216	200	125	85
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	111	133	134	130	128	125	103	75
PV of debt-to-exports ratio								
Baseline	229	191	197	198	200	200	223	277
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	229	224	240	263	284	306	512	1239
A2. New public sector loans on less favorable terms in 2010-2030 2	229	194	202	203	205	206	232	294
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	229	190	193	192	192	190	204	247
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	229	316	441	435	418	399	349	402
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	229	190	193	192	192	190	204	247
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	229	215	238	235	229	221	210	247
B5. Combination of B1-B4 using one-half standard deviation shocks	229	333	465	456	434	408	332	374
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	229	190	193	192	192	190	204	247
PV of debt-to-revenue ratio								
Baseline	376	340	351	346	345	342	294	219
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	376	398	428	459	490	522	675	980
A2. New public sector loans on less favorable terms in 2010-2030 2	376	345	359	354	355	352	305	233
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	376	415	512	500	494	484	400	291
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	376	396	482	466	444	419	283	195
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	376	406	448	437	432	423	350	254
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	376	381	424	410	396	378	276	195
B5. Combination of B1-B4 using one-half standard deviation shocks	376	570	836	803	758	705	442	299
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	376	458	468	456	451	442	366	265

Table 4a Zimbabwe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-2030

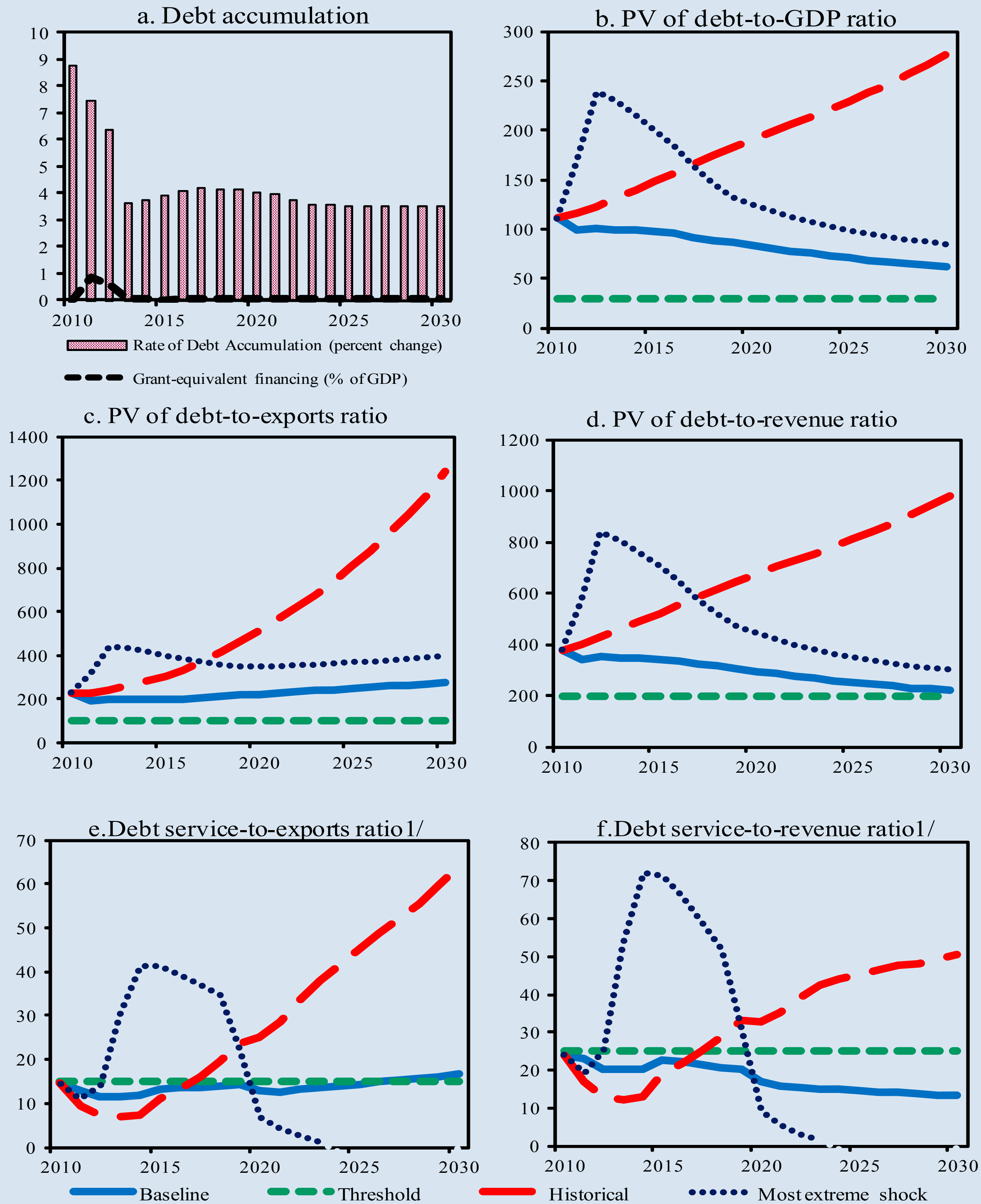
(In percent)

	Estimate	Projections 7/						
	2010	2011	2012	2013	2014	2015	2020	2030
(In percent)								
Debt service-to-exports ratio								
Baseline	15	13	11	11	12	13	13	17
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	15	10	7	7	7	11	25	64
A2. New public sector loans on less favorable terms in 2010-2030 2	15	8	8	8	7	8	6	7
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	15	8	6	5	4	5	…	…
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	15	12	13	24	32	33	4	…
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	15	8	6	5	4	5	…	…
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	15	8	7	12	13	14	1	…
B5. Combination of B1-B4 using one-half standard deviation shocks	15	11	14	30	41	41	7	…
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	15	8	6	5	4	5	…	…
Debt service-to-revenue ratio								
Baseline	24	23	20	20	20	22	17	13
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	24	17	13	12	13	19	33	51
A2. New public sector loans on less favorable terms in 2010-2030 2	24	14	15	14	12	14	8	6
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	24	18	16	13	11	11	…	…
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	24	14	14	26	34	34	3	…
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	24	17	14	12	9	10	…	…
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	24	14	13	20	23	23	1	…
B5. Combination of B1-B4 using one-half standard deviation shocks	24	19	25	53	72	71	9	…
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	24	20	14	12	10	10	…	…
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-14	-14	-14	-14	-14	-14	-14	-14

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.
For real GDP growth, historical period covers only from 2005 onwards due to unavailability of reliable data prior to this period.
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.
7/ An ellipsis ("…") indicates a negative value, as generated by the standard template. Negative values reflect the fact that debt service excludes arrears and principal on short-term debt, as well as interest and penalties on arrears in the alternative scenarios and bound tests.

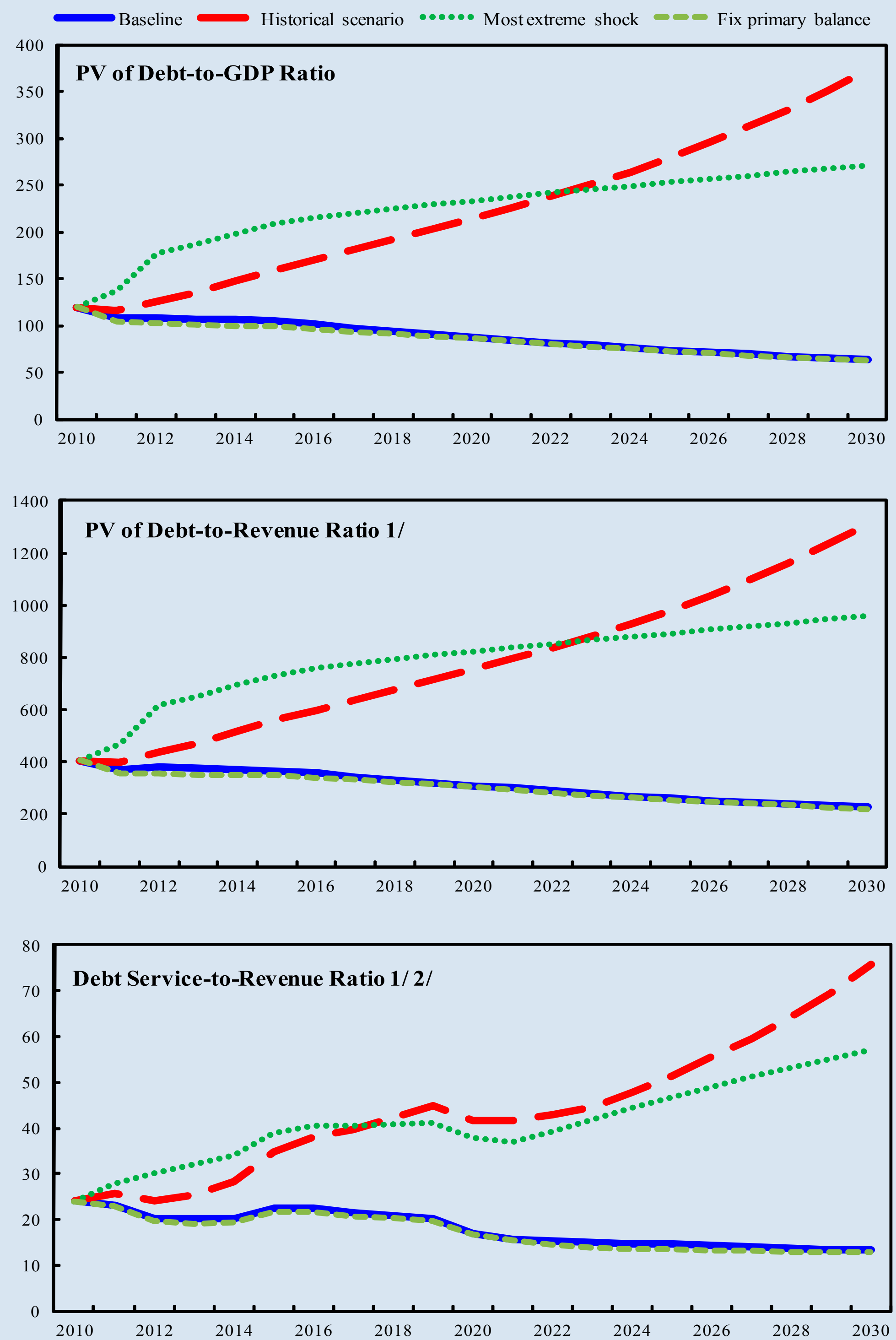
Figure 1 Zimbabwe: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2010-2030



Sources: Country authorities; and staff estimates and projections.

1/ Based on the standard template. The baseline scenario excludes arrears and principal on short-term debt. The historical and most extreme shock scenarios exclude arrears and principal on short-term debt, as well as interest and penalties on arrears.

Figure 2 Zimbabwe: Indicators of Public Debt Under Alternative Scenarios, 2010-2030



Sources: Country authorities; and staff estimates and projections.
1/ Revenues are defined inclusive of grants.
2/ Excluding arrears.

Table 5 Zimbabwe: External Debt Sustainability Framework, Alternative Scenario, 2007–30 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 1/	Standard Deviation 1/	Estimate	Projections								
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-2015 Average	2020	2030	2016-2030 Average
(1) External debt (nominal) 2/	**102.8**	**143.9**	**130.1**			**118.0**	**108.1**	**110.6**	**109.7**	**110.6**	**109.4**		**92.4**	**62.2**	
(2) o/w public and publicly guaranteed (PPG)	95.7	133.0	114.1			95.2	85.4	85.7	83.0	82.0	79.7		63.3	41.1	
(3) Change in external debt	10.1	41.2	-13.8			-12.1	-9.9	2.5	-0.9	0.9	-1.2		-3.6	-2.5	
(4) Identified net debt-creating flows	8.8	43.3	-11.7			13.0	8.6	8.3	5.0	4.3	3.3		3.3	1.6	
Non-interest current account deficit	**2.9**	**14.9**	**18.3**	**9.7**	**6.6**	**18.0**	**12.0**	**10.4**	**7.3**	**6.4**	**5.7**		**3.5**	**1.8**	3.1
Deficit in balance of goods and services	8.6	26.6	31.9			29.7	25.8	21.8	17.6	16.1	14.6		8.5	3.1	
Exports	37.8	41.5	30.8			48.3	53.6	53.7	53.2	53.8	54.2		47.6	36.0	
Imports	46.4	68.1	62.7			78.0	79.5	75.5	70.8	69.9	68.7		56.1	39.2	
Net current transfers (negative = inflow)	-8.3	-14.2	-15.1	-9.7	5.0	-13.0	-16.9	-14.3	-13.3	-12.7	-11.8		-7.4	-2.8	-6.0
o/w official	-6.4	-10.8	-10.3			-8.4	-5.9	-3.8	-3.1	-2.6	-2.1		-1.3	-0.5	
Other current account flows (negative = net inflow)	2.6	2.5	1.4			1.3	3.1	3.0	3.0	3.0	2.9		2.4	1.5	
Net FDI (negative = inflow)	**-1.2**	**-1.0**	**-1.8**	**-1.3**	**0.5**	**-1.6**	**-2.4**	**-2.4**	**-2.9**	**-2.9**	**-3.0**		**-2.7**	**-2.1**	-2.5
Endogenous debt dynamics 3/	**7.1**	**29.4**	**-28.2**			**-3.4**	**-1.0**	**0.3**	**0.6**	**0.8**	**0.6**		**2.4**	**2.0**	
Contribution from nominal interest rate	4.5	9.0	6.9			5.8	6.0	6.5	6.7	7.1	7.3		6.8	4.9	
Contribution from real GDP growth	3.5	21.8	-6.5			-9.2	-7.0	-6.2	-6.1	-6.2	-6.7		-4.4	-2.9	
Contribution from price and exchange rate changes	-0.8	-1.4	-28.5			…	…	…	…	…	…		…	…	
Residual (3-4) 4/	**1.3**	**-2.1**	**-2.1**			**-25.1**	**-18.5**	**-5.8**	**-5.9**	**-3.4**	**-4.5**		**-6.9**	**-4.2**	
o/w exceptional financing	-8.6	-24.1	-18.7			-8.8	-5.5	-5.1	-4.8	-4.7	-5.2		-3.4	-2.3	
PV of external debt 5/	…	…	149.0			133.5	120.0	120.5	117.7	117.7	115.6		95.6	62.1	
In percent of exports	…	…	483.6			276.5	223.8	224.2	221.2	218.7	213.3		200.9	172.2	
PV of PPG external debt	**…**	**…**	**132.9**			**110.6**	**97.4**	**95.6**	**91.0**	**89.0**	**85.8**		**66.5**	**41.0**	
In percent of exports	**…**	**…**	**431.5**			**229.2**	**181.6**	**177.9**	**171.0**	**165.4**	**158.4**		**139.7**	**113.7**	
In percent of government revenues	**…**	**…**	**830.9**			**376.1**	**327.6**	**320.4**	**305.4**	**298.5**	**288.7**		**224.2**	**138.2**	
Debt service-to-exports ratio (in percent)	**24.0**	**37.0**	**33.1**			**16.2**	**15.8**	**14.0**	**13.5**	**13.0**	**13.7**		**11.3**	**9.7**	
PPG debt service-to-exports ratio (in percent)	**23.4**	**34.7**	**26.6**			**14.6**	**12.4**	**10.5**	**10.3**	**10.2**	**10.9**		**8.8**	**7.4**	
PPG debt service-to-revenue ratio (in percent)	**231.6**	**477.6**	**51.3**			**24.0**	**22.3**	**18.9**	**18.4**	**18.3**	**19.9**		**14.1**	**9.0**	
Total gross financing need (Billions of U.S. dollars)	0.8	1.7	2.2			2.6	2.9	3.1	3.2	3.5	3.9		5.6	10.4	
Non-interest current account deficit that stabilizes debt ratio	-7.3	-26.2	32.0			30.1	21.9	8.0	8.2	5.4	6.9		7.2	4.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	-3.7	-17.7	6.0	-5.5	7.7	9.0	7.2	6.2	6.0	6.0	6.5	6.8	5.0	5.0	5.1
GDP deflator in US dollar terms (change in percent)	0.9	1.3	24.7	6.2	12.4	17.5	13.1	1.4	2.0	0.1	1.4	5.9	5.0	5.0	4.8
Effective interest rate (percent) 6/	4.7	7.3	6.3	4.7	1.3	5.7	6.1	6.5	6.5	6.8	7.1	6.5	7.8	8.3	7.8
Growth of exports of G&S (US dollar terms, in percent)	2.2	-8.4	-1.8	-3.3	6.5	100.6	34.7	7.9	7.1	7.2	8.7	27.7	6.7	7.6	7.2
Growth of imports of G&S (US dollar terms, in percent)	-3.8	22.4	21.8	5.2	10.2	59.2	23.5	2.3	1.4	4.6	6.2	16.2	5.4	6.9	6.1
Grant element of new public sector borrowing (in percent)	…	…	…	…	…	…	18.0	…	…	…	…	18.0	…	…	…
Government revenues (excluding grants, in percent of GDP)	3.8	3.0	16.0			29.4	29.7	29.8	29.8	29.8	29.7		29.7	29.7	29.7
Aid flows (in Billions of US dollars) 7/	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
o/w Grants	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
o/w Concessional loans	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	…	…	…			0.0	0.8	0.6	0.0	0.0	0.0		0.0	0.0	…
Grant-equivalent financing (in percent of external financing) 8/	…	…	…			…	18.6	…	…	…	…		…	…	…
Memorandum items:															
Nominal GDP (Billions of US dollars)	5.3	4.4	5.8			7.5	9.1	9.8	10.5	11.2	12.1		19.5	51.7	
Nominal dollar GDP growth	-2.8	-16.6	32.2			28.1	21.2	7.7	8.1	6.1	8.0	13.2	10.2	10.2	10.2
PV of PPG external debt (in Billions of US dollars)			7.8			8.3	8.8	9.3	9.6	10.0	10.4		12.9	21.2	
(PVt-PVt-1)/GDPt-1 (in percent)						8.7	7.4	5.6	2.8	3.4	3.6		3.3	2.4	
Gross remittances (Billions of US dollars)	0.0	0.1	0.2			0.3	0.9	0.9	0.9	1.0	1.0		1.0	1.0	
PV of PPG external debt (in percent of GDP + remittances)	…	…	128.6			106.9	88.7	87.4	83.5	81.9	79.2		63.2	40.2	
PV of PPG external debt (in percent of exports + remittances)	…	…	388.6			213.6	153.7	151.5	146.3	142.2	137.1		125.9	107.8	
Debt service of PPG external debt (in percent of exports + remittances)	…	…	24.0			13.6	10.5	8.9	8.8	8.7	9.5		7.9	7.0	

Sources: Country authorities; and staff estimates and projections.

1/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability. Data on external debt was estimated based on information from the authorities, Paris Club, WB, and EIB.
2/ External private debt, and public and publicly guaranteed debt.
3/ 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.
4/ Residuals are accounted for by the following factors: (i) portfolio and equity investment, (ii) capital transfers, and (iii) errors and omissions. Exceptional financing consists primarily of the accumulation of arrears.
From 2010 onwards, residuals include contributions to price and exchange rate changes.
5/ Assumes that PV of private sector debt is equivalent to its face value.
6/ Current-year interest payments divided by previous period debt stock.
7/ Defined as grants, concessional loans, and debt relief coursed through the central government budget. Except for very small amounts, all grants to Zimbabwe from 2010 onwards are assumed to be off-budget grants.
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 6 Zimbabwe: Public Sector Debt Sustainability Framework, Alternative Scenario, 2007–30 1/

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2007	2008	2009	Average 6/	Standard Deviation	2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030	2016-30 Average
Public sector debt 1/	95.7	142.9	123.4			103.8	92.5	92.3	89.1	87.7	85.0		66.2	42.2	
o/w foreign-currency denominated	95.7	142.9	123.4			103.8	92.5	92.3	89.1	87.7	85.0		66.2	42.2	
Change in public sector debt	8.0	47.3	-19.5			-19.5	-11.3	-0.2	-3.2	-1.4	-2.7		-3.4	-1.8	
Identified debt-creating flows	6.5	26.8	-29.6			-22.5	-11.5	-0.7	-3.5	-1.7	-3.0		-2.6	-1.5	
Primary deficit	-0.3	-0.3	-0.5	0.1	2.0	0.0	2.6	1.7	-1.0	-1.0	-1.0	0.2	0.0	0.0	-0.2
Revenue and grants	3.8	3.0	16.7			29.4	29.8	29.9	29.8	29.9	29.8		29.7	29.7	
of which: grants	0.0	0.0	0.7			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Primary (noninterest) expenditure	3.5	2.7	16.2			29.4	32.4	31.5	28.9	28.8	28.8		29.6	29.7	
Automatic debt dynamics	6.8	27.1	-29.1			-22.5	-14.1	-2.3	-2.6	-0.6	-2.0		-2.6	-1.5	
Contribution from interest rate/growth differential	6.8	27.1	-29.1			-22.5	-14.1	-2.3	-2.6	-0.6	-2.0		-2.6	-1.5	
of which: contribution from average real interest rate	3.4	6.6	-21.0			-12.3	-7.1	3.1	2.6	4.4	3.4		0.7	0.6	
of which: contribution from real GDP growth	3.3	20.5	-8.1			-10.2	-7.0	-5.4	-5.2	-5.0	-5.4		-3.3	-2.1	
Contribution from real exchange rate depreciation	0.0	0.0	0.0			...	...	...	...	...	...		...	...	
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	0.0	
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)	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/	1.5	20.5	10.1			3.0	0.2	0.4	0.3	0.3	0.2		-0.7	-0.3	
Other Sustainability Indicators															
PV of public sector debt	0.0	9.9	142.2			119.3	104.5	102.2	97.2	94.8	91.2		69.4	42.1	
o/w foreign-currency denominated	0.0	9.9	142.2			119.3	104.5	102.2	97.2	94.8	91.2		69.4	42.1	
o/w external	...	...	132.9			110.6	97.4	95.6	91.0	89.0	85.8		66.5	41.0	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 3/	10.8	18.5	13.3			7.0	9.2	7.3	4.5	4.4	4.9		4.1	2.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	0.0	328.7	851.3			405.3	351.1	342.2	325.6	317.5	306.4		233.8	141.7	
PV of public sector debt-to-revenue ratio (in percent)	0.0	328.7	888.9			405.5	351.5	342.5	325.9	317.8	306.6		234.1	141.9	
o/w external 4/	...	...	830.9			376.1	327.6	320.4	305.4	298.5	288.7		224.2	138.2	
Debt service-to-revenue and grants ratio (in percent) 5/	232.9	478.4	49.5			24.0	22.3	18.9	18.4	18.3	19.9		14.0	8.9	
Debt service-to-revenue ratio (in percent) 5/	232.9	478.4	51.6			24.0	22.3	18.9	18.4	18.3	19.9		14.1	9.0	
Primary deficit that stabilizes the debt-to-GDP ratio	-8.3	-47.6	19.0			19.5	13.9	1.9	2.3	0.3	1.7		3.3	1.8	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	-3.7	-17.7	6.0	-5.5	7.7	9.0	7.2	6.2	6.0	6.0	6.5	6.8	5.0	5.0	5.1
Average nominal interest rate on forex debt (in percent)	4.7	7.1	5.3	4.5	1.2	4.7	4.8	5.0	5.1	5.3	5.5	5.1	6.2	6.6	6.1
Average real interest rate on domestic debt (in percent)	...	...	-20.4	...	...	...	-11.6	-1.4	-2.0	-0.1	-1.3	...	-4.8	-4.8	...
Real exchange rate depreciation (in percent, + indicates depreciation)	0.0	0.0	0.0	0.0	0.0	0.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	0.9	1.3	24.7	6.2	12.4	17.5	13.1	1.4	2.0	0.1	1.4	5.9	5.0	5.0	4.8
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.6	-0.4	5.4	1.0	3.0	1.0	0.2	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1
Grant element of new external borrowing (in percent)	...	...	...	...	...	...	18.0	16.6	...	...	...	...	...	...	...

Sources: Country authorities; and staff estimates and projections.

1/ Public and publicly guaranteed debt and residents' claims on the RBZ denominated in foreign currency. For 2007, excludes local-currency denominated debt of about 1 percent of GDP.

2/ Includes accumulation of arrears. The residuals for 2007-2008 in part reflect RBZ's quasi-fiscal activities. In 2010, the residual in part reflects use of the SDR allocation. Residuals also reflect the difference in coverage between the public debt stock (PPG) and the flow variables (central government only). State-owned enterprise (SOE) debt is included only if guaranteed by the government.

3/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

4/ Revenues excluding grants.

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

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

Table 7 Zimbabwe: Sensitivity Analysis for Key Indicators of Public Debt, (Alternative Scenario) 2010–2030

	Estimate	Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of Debt-to-GDP Ratio								
Baseline	119	104	102	97	95	91	69	42
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	119	116	125	135	149	164	224	391
A2. Primary balance is unchanged from 2010	119	102	98	94	93	90	71	43
A3. Permanently lower GDP growth 1/	119	107	107	105	106	106	106	146
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	119	136	178	184	195	203	222	247
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	119	104	102	97	95	91	69	42
B3. Combination of B1-B2 using one half standard deviation shocks	119	122	138	143	151	156	170	188
B4. One-time 30 percent real depreciation in 2011	119	149	145	139	136	131	104	68
B5. 10 percent of GDP increase in other debt-creating flows in 2011	119	114	112	106	104	100	76	46
PV of Debt-to-Revenue Ratio 1/								
Baseline	405	351	342	326	318	306	234	142
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	405	389	419	452	500	550	753	1306
A2. Primary balance is unchanged from 2010	405	342	328	315	311	303	241	145
A3. Permanently lower GDP growth 1/	405	358	358	351	354	356	357	490
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	405	457	594	617	654	682	746	830
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	405	350	342	326	318	307	234	142
B3. Combination of B1-B2 using one half standard deviation shocks	405	408	462	478	505	526	572	634
B4. One-time 30 percent real depreciation in 2011	405	502	486	464	455	441	349	228
B5. 10 percent of GDP increase in other debt-creating flows in 2011	405	385	375	357	348	336	256	154
Debt Service-to-Revenue Ratio 1/ 2/								
Baseline	24	22	19	18	18	20	14	9
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	24	25	24	25	29	36	45	84
A2. Primary balance is unchanged from 2010	24	22	19	18	18	20	14	9
A3. Permanently lower GDP growth 1/	24	23	20	19	20	22	19	25
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	24	28	30	31	33	37	35	48
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	24	22	19	18	18	20	14	9
B3. Combination of B1-B2 using one half standard deviation shocks	24	26	26	25	26	30	28	36
B4. One-time 30 percent real depreciation in 2011	24	27	27	27	27	30	22	17
B5. 10 percent of GDP increase in other debt-creating flows in 2011	24	22	20	20	20	21	15	10

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 8 Zimbabwe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, (Alternative Scenario) 2010–2030

(In percent)

	Estimate	Projections						
	2010	2011	2012	2013	2014	2015	2020	2030
PV of debt-to GDP ratio								
Baseline	111	97	96	91	89	86	66	41
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	111	113	116	121	128	136	180	267
A2. New public sector loans on less favorable terms in 2010-2030 2	111	99	98	93	91	88	69	44
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	111	121	145	136	131	124	89	51
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	111	117	140	130	121	109	61	33
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	111	116	122	114	110	104	75	43
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	111	112	122	113	106	97	60	33
B5. Combination of B1-B4 using one-half standard deviation shocks	111	174	262	242	221	198	101	52
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	111	131	127	119	115	109	78	45
PV of debt-to-exports ratio								
Baseline	229	182	178	171	165	158	140	114
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	229	211	216	226	237	250	378	741
A2. New public sector loans on less favorable terms in 2010-2030 2	229	184	182	175	170	163	145	121
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	229	180	174	165	157	148	121	91
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	229	325	466	438	401	360	230	163
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	229	180	174	165	157	148	121	91
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	229	209	226	212	197	179	125	91
B5. Combination of B1-B4 using one-half standard deviation shocks	229	350	508	475	429	380	221	152
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	229	180	174	165	157	148	121	91
PV of debt-to-revenue ratio								
Baseline	376	328	320	305	299	289	224	138
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	376	380	388	404	428	456	607	901
A2. New public sector loans on less favorable terms in 2010-2030 2	376	333	328	313	307	297	233	147
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	376	407	487	458	440	418	301	172
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	376	392	470	438	405	368	207	111
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	376	391	408	383	369	351	252	144
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	376	377	408	379	355	327	201	111
B5. Combination of B1-B4 using one-half standard deviation shocks	376	587	877	813	743	665	341	177
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	376	442	426	401	385	366	264	150

Table 8a Zimbabwe: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, (Alternative Scenario) 2010–2030 (continued)

(In percent)

	Estimate	Projections 7/						
	2010	2011	2012	2013	2014	2015	2020	2030
(In percent)								
Debt service-to-exports ratio								
Baseline	15	12	11	10	10	11	9	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	15	9	7	5	4	6	14	33
A2. New public sector loans on less favorable terms in 2010-2030 2	15	8	8	7	6	6	4	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	15	8	5	4	3	3	…	…
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	15	12	14	26	35	33	2	…
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	15	8	5	4	3	3	…	…
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	15	8	7	11	13	12	0	…
B5. Combination of B1-B4 using one-half standard deviation shocks	15	11	15	34	46	44	4	…
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	15	8	5	4	3	3	…	…
Debt service-to-revenue ratio								
Baseline	24	22	19	18	18	20	14	9
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2010-2030 1/	24	17	12	9	7	11	22	41
A2. New public sector loans on less favorable terms in 2010-2030 2	24	14	14	12	10	12	6	3
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	24	17	15	12	9	9	…	…
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	24	14	14	26	35	34	1	…
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	24	17	13	10	8	8	…	…
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	24	14	13	20	24	23	…	…
B5. Combination of B1-B4 using one-half standard deviation shocks	24	19	26	59	80	77	7	…
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	24	19	13	11	8	8	…	…
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-14	-14	-14	-14	-14	-14	-14	-14

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. For real GDP growth, historical period covers only from 2005 onwards due to unavailability of reliable data prior to this period.

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).

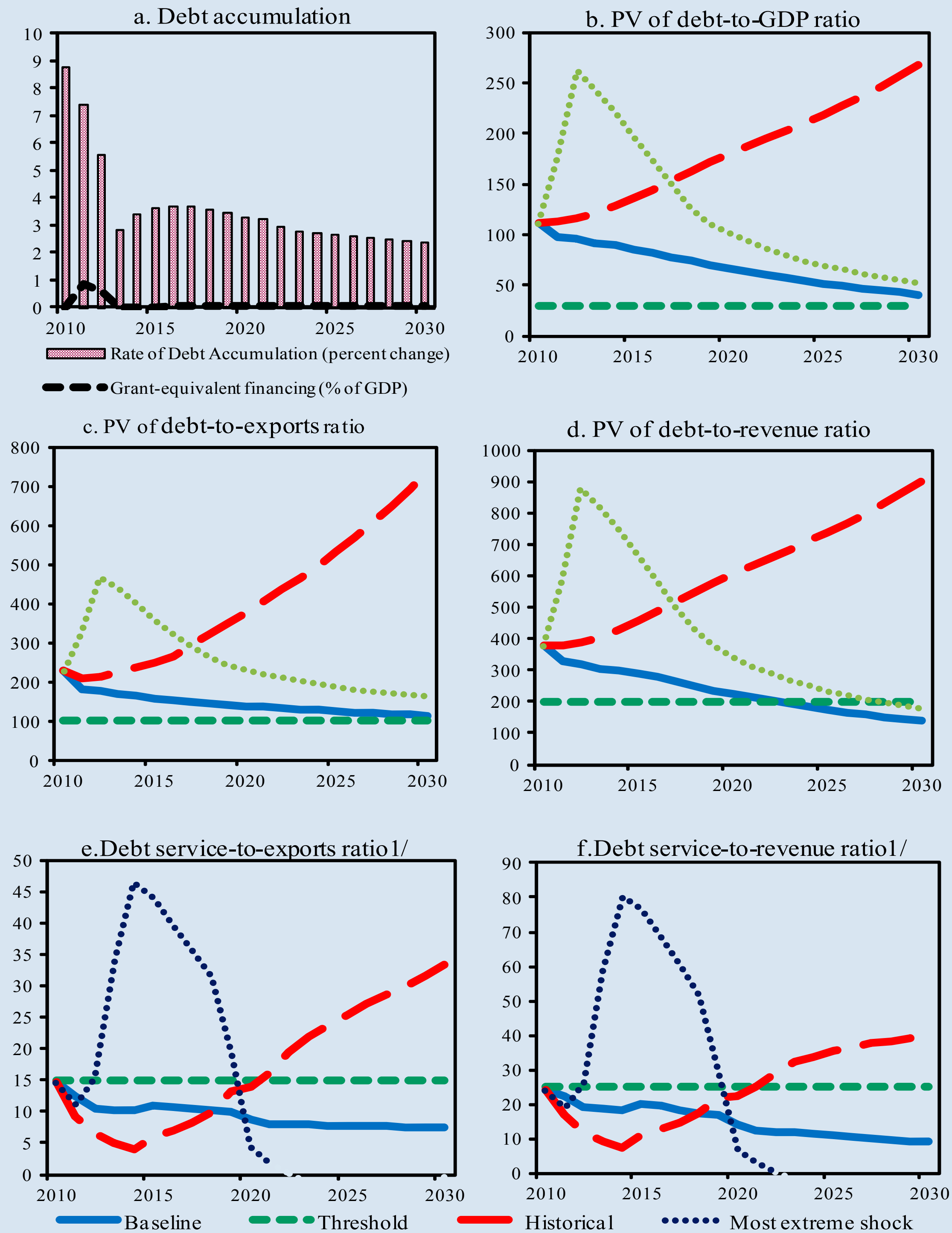
4/ Includes official and private transfers and FDI.

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.

7/ An ellipsis ("…") indicates a negative value, as generated by the standard template. Negative values reflect the fact that debt service excludes arrears and principal on short-term debt, as well as interest and penalties on arrears in the alternative scenarios and bound tests.

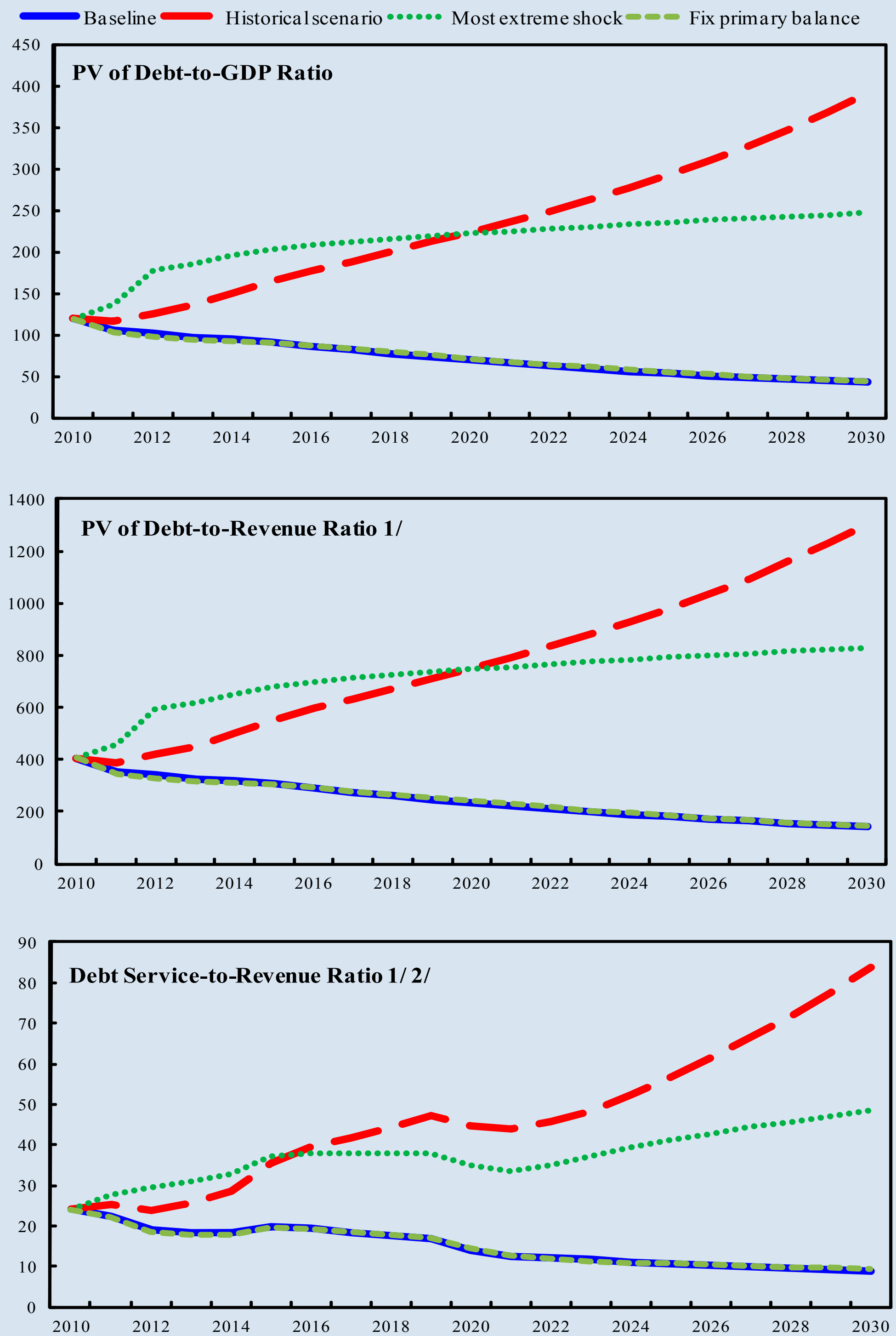
Figure 3 Zimbabwe: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2010-2030



Sources: Country authorities; and staff estimates and projections.

1/ Based on the standard template. The baseline scenario excludes arrears and principal on short-term debt. The historical and most extreme shock scenarios exclude arrears and principal on short-term debt, as well as interest and penalties on arrears.

Figure 4 Zimbabwe: Indicators of Public Debt under Alternative Scenarios, 2010-2030



Sources: Country authorities; and staff estimates and projections.
1/ Revenues are defined inclusive of grants.
2/ Excluding arrears.