

INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

CAPE VERDE

Joint World Bank–IMF Debt Sustainability Analysis

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

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While the risk of debt distress in Cape Verde remains low, a more rapid increase of the debt ratios than earlier envisaged is reducing the comfort level. A temporary acceleration of external borrowing for investments to address growth and export impeding infrastructure bottlenecks is causing the present value of the external debt-to-GDP ratio to rise faster than projected in the 2008 DSA. As a result, the PV of external debt-to-GDP ratio reaches the threshold in 2012 under the baseline and breaches it in several stress tests. Nevertheless, staff conclude that the risk of debt distress remains low primarily because inward remittances are large and, while not formally included in the DSA thresholds, they bolster the capacity to repay external liabilities. Still, to safely retain a low risk of debt distress in the future, Cape Verde will need to (i) reduce external borrowing from 2011 onwards, (ii) increase revenue mobilization, and (iii) keep domestic borrowing low to accumulate foreign reserves and reinforce the credibility of the currency peg.

I. BACKGROUND

1. **The present DSA reviews the evolution of Cape Verde's public debt¹ since the 2008 DSA and projects the future debt trajectory to assess the risk of debt distress.** Debt declined in 2008 but has risen substantially in 2009 owing mainly to the fiscal deficit. The risk of debt distress is assessed by comparing the projected external debt and external debt service trajectories with the debt burden thresholds for countries like Cape Verde that have

¹ Includes central government gross external debt and guarantees, central bank gross external debt, and central government net domestic debt. The SDR allocation is not included because the authorities do not plan to sell the SDR holdings and thus its present value is zero. It excludes the external debt of municipalities and state-owned enterprises. Central government external debt is gross of financial assets associated with on-lending of external loans to state-owned enterprises.

sound policies and institutions (Table 1).² The total debt projections are based on Cape Verde's medium-term fiscal framework (MTFF) 2010–12,³ which was discussed with the authorities during the 7th Policy Support Instrument (PSI) review mission in September 2009, and on their nascent medium-term debt strategy (MTDS) developed with technical assistance from the World Bank and the IMF. The DSA excludes the external debt of the private sector, municipalities, and state-owned enterprises, which is estimated to be small (projected to total 4 percent of GDP at end 2009).

2. The risk profile of Cape Verde's central government debt is low as it has a long average maturity and is mostly on concessional terms.

- Nominal external debt at the end of 2008 was 44 percent of GDP (30 percent of GDP in PV terms) with an average maturity of 25 years. Most of it is owed to multilateral agencies, such as IDA and the African Development Fund, and to bilateral donors. The share of commercial external debt is only 1 percent.
- Domestic debt represents 25 percent of total debt and is composed mostly of long-term bonds owed to domestic banks and the public pension fund. It has declined significantly in recent years as a result of the strong fiscal consolidation under the PSI, which is anchored on keeping domestic borrowing low to build external reserves.
- Public debt data does not include debt from high risk state owned enterprises (SOEs), which is entirely owed to domestic financial institutions. The authorities' report on contingent liabilities to the Council of Ministers in August 2009 estimates the total liabilities owed by the two loss making SOEs—the airline, TACV, and the water and electricity company, Electra—at 13 percent of GDP. While the amounts needed to recapitalize these firms would be less, it could reach as much as 5 percent of GDP.⁴ Given the high risk, this amount can be considered a *de facto* liability and is factored in the overall sustainability assessment (section IV).

² Cape Verde's score on the World Bank's Country Policy and Institutional Assessment (CPIA) averaged 4.14 for 2006–08, substantially above the 3.75 floor for strong performers.

³ The MTFF 2010–12 has been submitted to the National Assembly and is available in a document accompanying the 2010 State Budget.

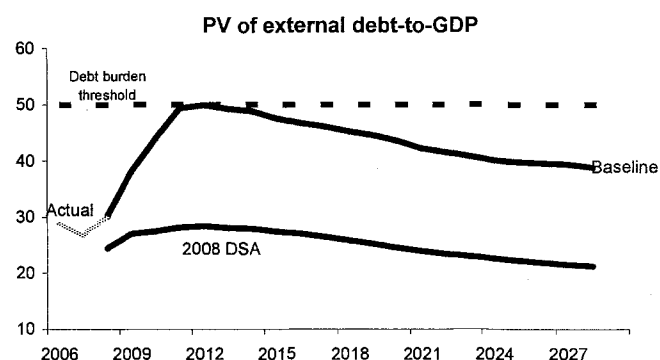
⁴ This is the estimated amount that would be needed to replenish the capital of these corporations to around 20 percent of their assets.

Cape Verde: Public Debt by residency and creditor, July 2009

	US\$ million	Percent of GDP	Percentage of Total
Total	1,014	58.1	100
Domestic public debt, net	250	14.3	25
External debt	764	43.8	75
Multilateral	485	27.8	63
<i>o/w IDA</i>	285	16.3	59
<i>ADF</i>	128	7.3	26
Bilateral	256	14.7	33
<i>o/w Portugal</i>	25	1.4	96
Bilateral Export Agencies	18	1.0	2
<i>o/w ICO Spain</i>	15	0.9	83
Private	5	0.3	1

Source: Ministry of Finance and staff estimates.

3. **Cape Verde's external government debt has risen rapidly since the last DSA⁵ for three main reasons:** an acceleration of infrastructure spending, a decline in government revenues, and the temporary depreciation of the euro (and thus the escudo) against the dollar in late 2008 after the previous DSA was prepared. The fiscal deficit is expected to widen to 8.8 percent of GDP in 2009 from 1 percent in 2007–08 (on average).



- **Infrastructure spending is being accelerated to remove infrastructure bottlenecks and raise Cape Verde's growth potential.** The authorities' medium-term borrowing plans have been revised upward relative to the previous DSA because of new concessional funds secured from bilateral donors, notably Portugal. The concentration of these investments during 2009–12 has been dictated by the concessional financing windows that Cape Verde has secured from donors. Approximately one-third of the investments planned for 2009–12 is financed by external grants and the rest by external loans and current surpluses. The Millennium Challenge Corporation is providing grants to expand the port of Praia. Most loans are concessional from multilateral banks and Paris Club members, but one third is nonconcessional, notably from the European Investment Bank (EIB) to expand the port of Palmeira in Sal Island.⁶ Other nonconcessional loans are in the pipeline,

⁵ IMF Country Report 09/14 and World Bank report No. 47750-CV.

⁶ The fiscal statistics do not treat the EIB loan as capital spending because it is on-lent to the port operator (recorded below the line).

notably from the IBRD for energy infrastructure. However, because all new loans, including the nonconcessional ones, are long-term with long grace periods, debt service will increase only slowly.

- **Tax revenues declined as a result of the global crisis and reduced tax rates.** The 2009 budget law lowered income tax rates for individuals and firms for 2009 and retroactively for 2008. The decline in fuel import taxes caused by lower oil prices and the slowdown in tourism revenues and foreign direct investment (FDI) associated with the global crisis are reducing tax revenues and land sale proceeds in 2009 below budget. To cover the shortfall without borrowing domestically and draining foreign reserves, a nonconcessional budget support loan from the African Development Bank has been requested. It is expected to be disbursed in two tranches of €20 million (1.6 percent of GDP) each in 2009 and 2010.⁷
- **The depreciation of the euro, and thus the Cape Verde escudo, against the US dollar in the second half of 2008 temporarily raised the external debt-to-GDP ratio by approximately 3 percentage points at the end of 2008, confirming the currency risk highlighted in the previous DSA.** Cape Verde's public sector is not fully hedged against currency risk because a portion of its external debt is denominated in US dollars without matching dollar-denominated assets in the central bank. As a result of this open position, the depreciation of the dollar relative to the euro (and thus the escudo) during 2009 was beneficial to Cape Verde's debt indicators. To better hedge the consolidated public sector against currency risk, the authorities have adopted a policy of seeking new loans in euros while keeping part of foreign reserves in dollars.

II. THE BASELINE SCENARIO

4. **The long term macroeconomic framework will continue to be driven by two main processes:** the economic transformation toward a service exports-based economy, and accumulation of international reserves at the BCV. The escudo will continue to be pegged to the euro. Because of the high import penetration, inflation in Cape Verde will continue to reflect mainly supply side developments, notably import prices and exogenous shocks.

5. **Growth is marked by a deceleration of economic activity in the near term due to the global crisis and a slow recovery toward trend over the medium term.** Despite the acceleration of infrastructure spending and the lower tax rates, the slowdown in FDI could keep growth below its historical trend for some time. The acceleration of public infrastructure spending is unlikely to boost contemporaneous growth because of the small

⁷ In Cape Verde, spending in excess of budgeted amounts is allowed as long as the financing source is external and total debt remains below 60 percent of GDP.

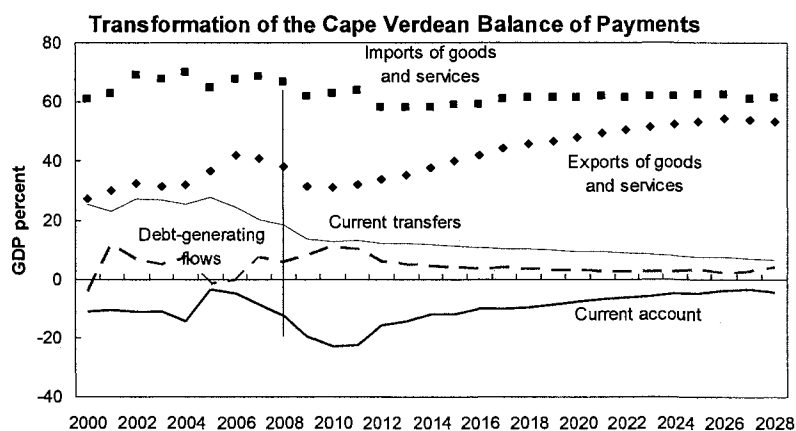
fiscal multipliers caused by high import leakages and because it is not fully offsetting the demand effect of the decline in private investment. While the global shock worsened the near-term growth outlook, Cape Verde's medium-term growth prospects remain strong.

Cape Verde: Baseline Assumptions, 2009-29

	Average	Average 2009-13		Average 2014-29	
	1999-2008	2008 DSA	Current DSA	2008 DSA	Current DSA
	(Annual growth rate)				
Real GDP	7.1	6.7	5.7	5.0	5.2
CPI (end-of-period)	2.0	2.5	1.7	2.0	2.0
	(Percent of GDP)				
Exports of goods and services	33.3	48.3	32.9	65.5	48.6
Imports of goods and services	65.8	71.9	61.0	79.0	61.1
Private transfers, incl. remittances	19.4	11.5	11.6	9.1	8.7
<i>Of which: remittances</i>	12.3	5.9	7.0	6.2	6.2
Current account	-10.2	-10.6	-18.9	-5.2	-7.3
FDI	7.6	8.5	8.0	4.8	4.8
Government revenues and grants	29.3	27.7	28.7	26.8	26.9
Overall fiscal balance	-6.9	-4.8	-8.1	-2.4	-3.7

Source: National authorities and staff estimates and projections.

6. **After the global crisis abates, external demand and FDI should recover, supported by the new infrastructure.** Growth will be driven by tourism, FDI, and to a lesser extent, remittances. Under the baseline, growth is assumed to recover slowly and not fully catch up with the pre-crisis trend because there are no large FDI projects currently in the pipeline. Lower availability of real estate credit in Britain and Spain could restrain post-crisis FDI for, and construction of, vacation apartments in Cape Verde. However, the acceleration of infrastructure spending is likely to raise Cape Verde's long-run growth potential. Thus, growth could turn out to be higher than assumed under the baseline. Cape Verde is transforming its economy by harnessing its comparative advantage on tourism, and export of tourism services is undergoing a structural rise.



7. **Imports are assumed to remain flat (as a share of GDP).** While the fast growing exports have a high import component (goods consumed by tourists), the associated import increase will be largely offset by a decline in other import-driving inflows. The deceleration of FDI is containing imports in the near term, and completion of the current large tourism projects will contain it in the long run; construction material, equipment, and labor are mostly imported. In addition, as Cape Verde climbs the income ladder, emigration will slow and the share of remittances and other current transfers in GDP should decline.

8. **The baseline assumes that the authorities will continue to keep domestic borrowing low to support accumulation of foreign reserves and protect the exchange rate peg.** Fiscal policy is geared toward accumulating reserves equivalent to 0.1 months of imports of goods and services annually. At this pace, foreign reserves will increase from a comfortable 3.9 months of imports in 2009 to an expected 5.2 months in 2029 or, reflecting the high import-to-GDP ratio, from 21 percent of GDP in 2009 to 31 percent in 2029. To accumulate this volume of reserves, an enduring fiscal restraint will be required to keep net domestic borrowing below 1 percent of GDP on average throughout the period. Because reserves will remain at a comfortable level, the SDR holdings will not be exchanged for foreign currency, interest will not accrue, and thus the PV of the SDR allocation is zero.

9. **Cape Verde will progressively borrow on less concessional terms.** The baseline scenario assumes that the concessionality of new loans will decline in the medium term. With Cape Verde's graduation from least-developed-country status in 2008, it acquired "blend" status with multilateral development agencies and is now eligible to borrow from their nonconcessional windows, notably the EIB, ADB, and the IBRD and, after a transition period, with shrinking access to concessional funds. While these loans have market rates, their maturities are long, typically 20 years with 5–10 years of grace. During the disbursement of these nonconcessional loans, the average grant element will be around 25 percent. After the bulk of these nonconcessional loans has been disbursed, the average concessionality will rise to above 30 percent by 2014 and then concessionality will resume its gradual long term decline (Figure 1, top left chart).

III. EXTERNAL DEBT SUSTAINABILITY

A. Baseline Scenario: Debt Decline in the Medium Term

10. **The pace of external borrowing will slow sharply in 2012, putting the PV of the external debt-to-GDP ratio on a declining path thereafter (Table 1).** This policy commitment is embedded in the MTFE submitted to the National Assembly with the 2010 budget proposal (footnote 3). While the debt-to-GDP ratio will touch, but not breach, the debt burden threshold in 2012, all other debt ratios will remain well below their thresholds, including the debt service ratios. Further, the ratios relative to GDP and exports overstate the true debt burden indicator in the sense that they do not consider the large and steady flow of remittances as broadening the repayment capacity of the country. With an average of 12 percent of GDP over the past ten years and a conservative estimate of 6½ percent of GDP over the next 10 years, remittances should feature prominently in the debt sustainability analysis.

B. Stress Tests and Alternative Scenarios

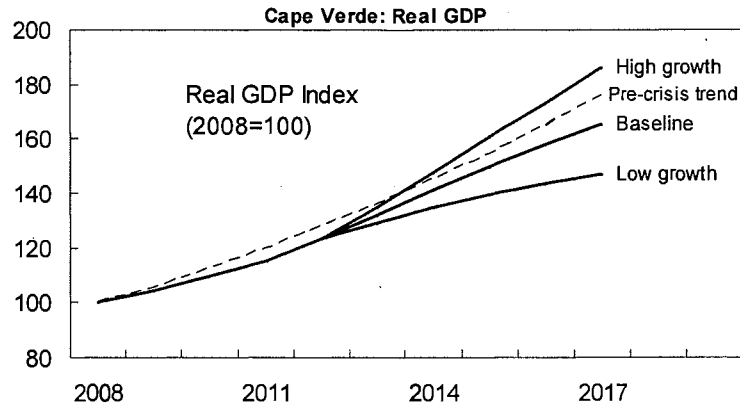
11. **All debt burden indicators, but the ones associated with the PV of debt-to-GDP, remain well below the thresholds even under the extreme tests. (Table 2 and Figure 1).⁸** The breaches of the three stress tests relevant for Cape Verde are minor and last for two years at most. Under the growth shock (B1), the PV of the debt-to-GDP ratio, breaches the threshold during one year and the deviation only amounts to 0.6 percent of GDP; the export shock (B2) results in a one-year breach amounting to 0.1 percent of GDP, while the financing shock leads to a two-year breach totaling 0.2 and 0.5 percent of GDP. The other two stress tests—a depreciation (B6) and US deflation (B3)—are irrelevant for Cape Verde. The assumed 30 percent devaluation of the escudo is unlikely due to the strength of the peg supported by adequate reserves and policies geared toward a further steady reserve build-up. In addition, Cape Verde has access to a contingent balance of payments support facility from Portugal equivalent to 500 percent of its quota in the Fund. The stress test highlights, however, the importance of keeping reserves adequate to protect the peg. A continued low domestic borrowing and steady reserve accumulation is vital to comfort markets about the sustainability of the peg. The US deflation shock (B3) is irrelevant as the US is not a significant trading partner and only part of the debt is denominated in dollars.

12. **The other debt ratios provide assurances that Cape Verde's repayment capacity remains satisfactory.** Given the high export-to-GDP in this small open archipelago (over 40 percent) and the strong capacity to collect taxes, the debt-to-export and debt-to-revenue ratios remain below the thresholds even under extreme scenarios. Moreover, all of Cape Verde's external debt has maturities that are typically more than 10 years, which alleviates cash flow pressures and limits rollover difficulties. This lessens concerns about the country's ability to repay its debt, and provides additional support for the low risk classification.

C. Country-Specific Alternative Scenarios

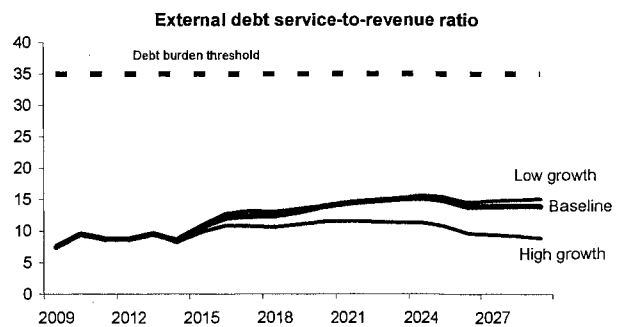
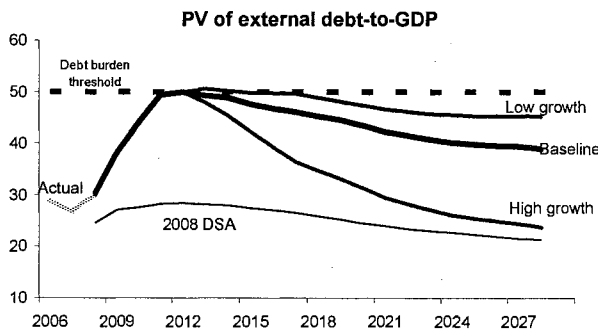
13. **A high-growth and a low-growth scenario were constructed to test the sensitivity of debt ratios to growth assumptions (Table 5).** Each scenario assumes that growth will deviate from the baseline by +/-2.5 percentage points (one standard deviation) in 2013–17. As in the baseline, the low-growth scenario implies that GDP will be permanently below its pre-crisis trend. Because the high-growth scenario assumes growth slightly above its pre-crisis trend, GDP will eventually surpass the trend.

⁸ The test B2 is applied for the years 2011–12, instead of 2010–11, to ensure that export growth under the stress test is below the baseline growth rate.



14. **Even under the low-growth scenario, the debt and debt service dynamics remain sustainable.** The PV of external debt-to-GDP breaches its threshold only for one year (2013) and by a slight deviation of less than 1 percentage point. The ratios decline thereafter, but very slowly (ending at 47 percent of GDP in 2029) unlike under the baseline scenario (38 percent). Under those circumstances, the borrowing space would be very limited and the country may face difficulties to borrow if necessary to smooth future shocks. Given that it is assumed that borrowing will continue with long maturities, the debt ratios will stay low even in the low-growth scenario. This should dispel any concerns about the country's ability to repay its debt.

15. **Under the high growth scenario, with a higher growth dividend than conservatively assumed under the baseline, the debt stock ratios would decline rapidly after 2012.** If the higher growth dividend materializes, the ensuing strong tax revenues will make it easier to contain the deficit and reduce debt faster while still further expanding public expenditures (Table 5).



IV. TOTAL PUBLIC DEBT SUSTAINABILITY

A. Baseline Scenario: Continued Decline in Net Domestic Debt

16. **The trajectory of total public debt mirrors external debt and yields the same conclusion (Table 4).** The PV of total debt-to-GDP peaks at 63 percent of GDP (68 percent if adding the contingent liabilities) in 2010 and declines thereafter in line with the authorities'

commitment in the MTFE to reduce external borrowing after 2011. External borrowing is determining the trajectory of total public debt because net domestic debt is projected to continue to decline: from 14 percent of GDP in 2009 to 7 percent by 2029. Net domestic borrowing is projected to remain below 1 percent of GDP on average. The debt-to-revenue and debt service-to-revenue ratios will remain broadly stable.

B. Alternative Scenarios and Stress Tests

17. **The alternative scenarios and stress tests reiterate the conclusion that external borrowing needs to be reduced from 2011 onward (Table 5).** If not, all debt ratios would evolve on an explosive path in the alternative scenarios (A1-3). In the scenario where the 2009 primary deficit of 7.4 percent⁹ of GDP is maintained through 2029, debt ratios rise without bounds (Figure 2). A sharp real devaluation is the most extreme scenario for all ratios, which reinforces the message that domestic borrowing needs to be low to contain domestic demand and accumulate foreign reserves.

18. **Other risks to the debt outlook include a currency mismatch and the contingent liabilities of state-owned enterprises.**

- A depreciation of the dollar could raise debt relative to GDP. To mitigate the currency risk, the authorities are designing a two-pronged MTDS¹⁰ using an asset-liability technique: while the BCV will seek to have foreign assets matching the currencies and maturities of debt service obligations, the Treasury will seek its new loans in euros.
- The amount needed today to recapitalize Electra and TACV can reach as much as 5 percent of GDP (footnote 4). While these two corporations continue to make losses and this amount could be considered *de facto* debt, the authorities are taking actions to minimize the budgetary impact. The new energy regulation and the government investments in energy promise to restore Electra's profitability. TACV is being prepared to be taken over by a private partner after the global shock abates in an operation that may limit the impact on the budget through a renegotiation that could reduce TACV's debt with the state-owned airport operator.¹¹

⁹ Historical average deficit minus one standard deviation is 10.4 percent.

¹⁰ During 2009 the World Bank and the IMF provided Cape Verde with technical assistance missions and seminars on debt management, such as how to perform the Debt Management Performance Assessment, build capacity to conduct DSAs, and apply the MTDS tool.

¹¹ See Memorandum of Economic and Financial Policies for the 7th PSI review.

V. CONCLUSIONS: LOW RISK OF DISTRESS BUT TIGHTER CONDITIONS

19. **While the risk of debt distress remains low, there are increased risks to the debt outlook that warrant vigilance.** This joint external and public-sector debt sustainability analysis reveals increased vulnerability as external debt ratios are higher than anticipated in the 2008 DSA, reflecting a large increase in external borrowing related to the acceleration of the investment program, the impact of the global downturn, and euro-dollar exchange rate changes.

20. **Mitigating factors, however, lead staffs to assess Cape Verde's debt distress rating as low.** Most important, large and steady remittances amounting to 6½ percent of GDP on average over the next ten years enhance the country's repayment capacity. Moreover, Cape Verde's strong policies and institutions should help ensure that the growth dividends from the accelerated public investments do materialize. Finally, the long maturities of the existing debt ensure that liquidity risks are absent.

21. **Nevertheless, the increased debt vulnerabilities warrant vigilance.** In particular

- The assessment of a continued low risk of distress is based on the authorities' commitment to decelerate external borrowing in 2012 and thereafter. Deviations from this commitment could jeopardize long-term external debt sustainability and the debt distress rating.
- New borrowing should continue to be mostly with long maturities and on concessional terms. The low risk of distress classification takes into account the fact that long maturities will ensure low debt service obligations relative to Cape Verde's export and revenue ratios. If maturities are shorter, and concessionality lower compared to the baseline, the risks to the debt outlook would be worse and the rating may have to be downgraded.
- Currency mismatch and contingent liabilities continue to be a risk, as illustrated in 2008 when the dollar appreciated. The authorities should seek to hedge the short dollar positions by rebalancing the currency composition of the BCV's portfolio toward dollar-denominated assets. Contingent liabilities should be addressed without delay.

Table 1. Cape Verde: External Debt Sustainability Framework, Baseline Scenario, 2006-2029 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Projections								2009-2014 Average		2015-2029 Average	
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009-2014 Average	2015-2029 Average				
External debt (nominal) 1/	62.8	49.6	54.0			59.3	64.6	71.5	71.2	68.5	67.1		59.2	48.5			
o/w public and publicly guaranteed (PPG)	47.7	40.7	41.6			46.6	55.2	62.5	63.3	61.6	60.2		53.2	44.2			
Change in external debt	-9.2	-13.2	4.5			5.3	5.2	6.9	-0.3	-2.6	-1.4		-1.3	0.5			
Identified net debt-creating flows	-15.9	-13.2	-6.2			10.7	13.1	10.5	2.2	0.7	-0.9		-0.1	2.0			
Non-interest current account deficit	2.2	6.9	10.4	7.6	4.0	17.7	20.7	20.1	13.5	12.0	10.0	15.7	6.8	3.1	5.0		
Deficit in balance of goods and services	25.6	27.4	28.1			30.3	32.0	31.5	24.2	22.6	20.1		14.8	8.1			
Exports	42.0	41.2	38.5			31.7	31.1	32.3	33.8	35.6	37.9	33.7	46.9	53.2	49.3		
Imports	67.6	68.5	66.5			62.0	63.1	63.8	58.0	58.2	58.1	60.5	61.6	61.2	61.3		
Net current transfers (negative = inflow)	-24.4	-20.4	-18.4	-24.6	3.1	-13.8	-12.5	-13.1	-12.4	-12.4	-11.9	-12.7	-9.8	-6.2	-8.7		
o/w official	-4.1	-4.2	-6.0			-2.2	-0.7	-1.0	-1.0	-1.2	-1.0		-0.4	0.6			
Other current account flows (negative = net inflow)	1.0	-0.1	0.7			1.2	1.3	1.6	1.7	1.7	1.8		1.9	1.2			
Net FDI (negative = inflow)	-9.3	-8.5	-12.0	-7.6	2.8	-6.6	-7.0	-8.5	-8.9	-9.1	-8.9	-8.2	-6.2	-0.7	-4.6		
Endogenous debt dynamics 2/	-8.9	-11.6	-4.6			-0.4	-0.6	-1.1	-2.3	-2.2	-2.0		-0.7	-0.4			
Contribution from nominal interest rate	2.9	1.7	1.9			1.8	2.1	2.2	2.3	2.3	2.3		2.0	1.8			
Contribution from real GDP growth	-6.5	-3.9	-2.5			-2.2	-2.7	-3.3	-4.6	-4.5	-4.3		-2.8	-2.2			
Contribution from price and exchange rate changes	-5.3	-9.5	-4.0			...	...	...	...	...	...		...	...
Residual (3-4) 3/	6.7	0.0	10.7			-5.5	-7.9	-3.6	-2.5	-3.3	-0.5		-1.2	-1.5			
o/w exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			
PV of external debt 4/	...	...	42.6			51	53	58	58	56	56		50	43	
In percent of exports	...	...	110.7			160	172	181	171	158	147		108	80	
PV of PPG external debt	...	...	30.2			38	44	49	50	49	49		44	38	
In percent of exports	...	...	78.4			120	141	153	148	138	129		95	72	
In percent of government revenues	...	...	120.4			166	193	197	201	199	197		176	150	
Debt service-to-exports ratio (in percent)	11.2	8.0	9.0			10.3	11.7	11.2	10.4	10.2	8.7		9.2	8.1			
PPG debt service-to-exports ratio (in percent)	5.6	4.7	4.9			5.5	7.0	6.8	6.5	6.7	5.6		7.1	6.7			
PPG debt service-to-revenue ratio (in percent)	9.8	7.9	7.5			7.5	9.5	8.8	8.8	9.6	8.5		13.1	14.0			
Total gross financing need (Billions of U.S. dollars)	0.0	0.0	0.0			0.251	0.329	0.306	0.178	0.159	0.118		0.206	0.605			
Non-interest current account deficit that stabilizes debt ratio	11.5	20.1	5.9			12.5	15.5	13.2	13.8	14.6	11.4		8.1	2.6			
Key macroeconomic assumptions																	
Real GDP growth (in percent)	10.8	7.8	5.9	7.1	2.5	4.1	5.0	5.5	7.0	7.1	6.9	5.9	5.0	4.9	5.1		
GDP deflator in US dollar terms (change in percent)	7.9	17.8	8.8	5.9	11.0	-3.9	3.4	0.9	2.4	3.3	3.2	1.6	3.4	2.8	3.2		
Effective interest rate (percent) 5/	4.9	3.5	4.5	4.7	1.4	3.3	3.9	3.6	3.5	3.6	3.7	3.6	3.6	4.0	3.7		
Growth of exports of G&S (US dollar terms, in percent)	36.3	24.5	7.7	19.2	9.3	-17.6	6.4	10.5	14.7	16.4	17.7	8.0	11.3	7.1	10.9		
Growth of imports of G&S (US dollar terms, in percent)	24.6	28.7	11.9	14.8	12.1	-6.8	10.4	7.7	-0.5	11.1	10.0	5.3	8.8	7.8	8.8		
Grant element of new public sector borrowing (in percent)	24.3	22.4	28.3	31.9	17.6	16.5	23.5	16.4	11.1	15.5		
Government revenues (excluding grants, in percent of GDP)	24.1	24.3	25.1			23.0	22.8	25.0	24.8	24.8	24.7		25.2	25.6	25.3		
Aid flows (in Billions of US dollars) 7/	0.114	0.116	0.086			0.199	0.205	0.243	0.195	0.098	0.104		0.148	0.136			
o/w Grants	0.066	0.069	0.086			0.108	0.109	0.092	0.090	0.064	0.068		0.081	0.076			
o/w Concessional loans	0.048	0.047	0.000			0.091	0.096	0.151	0.105	0.034	0.037		0.068	0.059			
Grant-equivalent financing (in percent of GDP) 8/			8.9	8.5	8.0	6.5	3.6	3.4		2.8	1.4	2.4		
Grant-equivalent financing (in percent of external financing) 8/			51.7	46.9	48.2	55.5	43.7	42.9		38.4	23.8	34.6		
<i>Memorandum items:</i>																	
Nominal GDP (Billions of US dollars)	1.192	1.513	1.744			1.744	1.894	2.015	2.208	2.442	2.694		4.177	9.009			
Nominal dollar GDP growth	19.5	27.0	15.3			0.0	8.6	6.4	9.5	10.6	10.3	7.6	8.5	7.9	8.4		
PV of PPG external debt (in Billions of US dollars)	...	...	0.5			0.7	0.8	1.0	1.1	1.2	1.3		1.9	3.5	
(PVt-PVt-1)/GDPT-1 (in percent)			7.9	9.7	8.5	5.3	4.6	4.6	6.8	3.1	2.6	2.9		

Source: Staffs simulations.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - r(1+g)] / (1+g+r+gr)$ times previous period debt ratio, with r = nominal interest rate, g = real GDP growth rate, and r = 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; valuation adjustments; and the capital account. For projections also includes contribution from price and exchange rate changes.

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

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

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

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

8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Table 2. Cape Verde: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009-2029
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of debt-to GDP ratio								
Baseline	38	44	49	50	49	49	44	38
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	38	29	21	20	22	25	29	15
A2. New public sector loans on less favorable terms in 2009-2029 /2	38	44	50	50	49	49	48	48
A3. Low growth scenario 7/	38	44	49	50	51	50	48	47
A4. High growth scenario 7/	38	44	49	50	48	45	33	23
B. Bound Tests								
B1. Real GDP growth at historical level minus one standard deviation in 2010-2011	38	44	50	51	50	49	45	39
B2. Export value growth at historical level minus one standard deviation in 2011-12 3/	38	44	50	50	49	49	44	38
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	38	48	57	58	57	57	52	45
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	38	37	38	40	42	44	44	38
B5. Combination of B1-B4 using one-half standard deviation shocks	38	33	28	32	36	40	45	39
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	38	62	70	70	69	69	63	54
PV of debt-to-exports ratio								
Baseline	120	141	153	148	138	129	95	72
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	120	93	66	60	61	66	61	28
A2. New public sector loans on less favorable terms in 2009-2029 /2	120	141	155	149	137	130	102	90
A3. Low growth scenario 7/	120	141	153	148	142	133	101	87
A4. High growth scenario 7/	120	141	153	148	132	113	65	41
B. Bound Tests								
B1. Real GDP growth at historical level minus one standard deviation in 2010-2011	120	142	153	148	138	129	95	72
B2. Export value growth at historical level minus one standard deviation in 2011-12 3/	120	142	154	155	146	135	100	76
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	120	142	153	148	138	129	95	72
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	120	120	118	120	118	116	95	72
B5. Combination of B1-B4 using one-half standard deviation shocks	120	97	76	82	88	92	84	65
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	120	142	153	148	138	129	95	72
PV of debt-to-revenue ratio								
Baseline	166	193	197	201	199	197	176	150
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	166	126	86	82	87	101	114	59
A2. New public sector loans on less favorable terms in 2009-2029 /2	166	193	201	203	197	199	190	188
A3. Low growth scenario 7/	166	193	197	201	199	199	187	180
A4. High growth scenario 7/	166	193	197	201	199	199	187	180
B. Bound Tests								
B1. Real GDP growth at historical level minus one standard deviation in 2010-2011	166	194	200	204	202	200	179	152
B2. Export value growth at historical level minus one standard deviation in 2011-12 3/	166	193	198	202	199	198	176	150
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	166	210	229	233	231	229	204	174
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	166	163	152	163	170	177	176	150
B5. Combination of B1-B4 using one-half standard deviation shocks	166	146	112	128	145	161	179	154
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	166	272	278	283	280	278	248	212

Table 2. Cape Verde: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009-2029 (continued)
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
Debt service-to-exports ratio								
Baseline	5	7	7	6	7	6	7	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	5	7	5	0	0	0	7	3
A2. New public sector loans on less favorable terms in 2009-2029 2/	5	7	7	7	7	6	5	4
A3. Low growth scenario 7/	5	7	7	6	7	6	7	7
A4. High growth scenario 7/	5	7	7	6	7	6	7	7
B. Bound Tests								
B1. Real GDP growth at historical level minus one standard deviation in 2010-2011	5	7	7	6	7	6	7	7
B2. Export value growth at historical level minus one standard deviation in 2011-12 3/	5	7	7	7	7	6	7	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	5	7	7	6	7	6	7	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	5	7	6	2	0	0	7	7
B5. Combination of B1-B4 using one-half standard deviation shocks	5	6	5	0	0	0	6	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	5	7	7	6	7	6	7	7
Debt service-to-revenue ratio								
Baseline	8	10	9	9	10	9	13	14
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	8	9	6	0	0	0	6	7
A2. New public sector loans on less favorable terms in 2009-2029 2/	8	10	9	10	11	9	9	8
A3. Low growth scenario 7/	8	10	9	9	10	9	14	15
A4. High growth scenario 7/	8	10	9	9	10	8	11	9
B. Bound Tests								
B1. Real GDP growth at historical level minus one standard deviation in 2010-2011	8	10	9	9	10	9	13	14
B2. Export value growth at historical level minus one standard deviation in 2011-12 3/	8	10	9	9	10	9	13	14
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	8	10	10	10	11	10	15	16
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	8	10	8	3	1	0	13	14
B5. Combination of B1-B4 using one-half standard deviation shocks	8	10	7	0	0	0	12	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	8	13	12	12	14	12	18	20
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	0	0	0	0	0	0	0	0

Source: Staffs projections and simulations.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels). The test is applied on 2011-12, instead of 2010-11, so that export growth in the test is below baseline.

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/ Assumes growth rates respectively 2.5 percentage points (one standard deviation) above and below the baseline in 2013-17.

Table 3. Cape Verde: Public Sector Debt Sustainability Framework, Baseline Scenario, 2006-2029
(In percent of GDP, unless otherwise indicated)

	Actual					Projections									
	2006	2007	2008	Average 5/ Standard Deviation 5/	Standard Deviation 5/	2009	2010	2011	2012	2013	2014	2009-14 Average	2019	2029	2015-29 Average
Public sector debt 1/	73.4	59.7	57.4			60.5	69.3	76.5	75.5	73.8	71.7		62.0	51.3	
o/w foreign-currency denominated	47.7	40.7	41.6			46.6	55.2	62.5	63.3	61.6	60.2		53.2	44.2	
Change in public sector debt	-11.5	-13.7	-2.3			3.1	8.8	7.2	-1.0	-1.7	-2.1		-1.5	-0.9	
Identified debt-creating flows	-13.9	-14.9	-1.1			3.3	5.9	5.7	-1.2	-2.1	-1.9		-1.5	-1.2	
Primary deficit	3.2	-0.8	-0.3	4.8	5.6	7.4	8.1	8.3	4.1	4.1	3.8	6.0	2.2	1.3	1.9
Revenue and grants	29.7	28.9	30.0	29.3	1.9	29.2	28.6	29.6	28.9	27.4	27.3	28.5	27.2	26.5	26.9
of which: grants	5.5	4.6	4.9			6.2	5.7	4.6	4.1	2.6	2.5		1.9	0.8	
Primary (noninterest) expenditure	32.8	28.0	29.7	34.1	5.0	36.6	36.7	37.9	33.0	31.5	31.0	34.5	29.4	27.8	28.9
Automatic debt dynamics	-16.6	-12.9	-0.2			-4.2	-1.6	-2.8	-5.4	-5.8	-5.4		-3.6	-2.5	
Contribution from interest rate/growth differential	-10.0	-7.0	-3.2			-2.2	-2.2	-3.1	-4.9	-5.0	-4.7		-2.9	-2.1	
of which: contribution from average real interest rate	-1.7	-1.7	0.2			0.0	0.7	0.5	0.1	-0.1	0.1		0.1	0.3	
of which: contribution from real GDP growth	-8.3	-5.3	-3.3			-2.2	-2.9	-3.6	-5.0	-5.0	-4.7		-3.0	-2.5	
Contribution from real exchange rate depreciation	-6.6	-5.9	3.0			-1.9	0.5	0.3	-0.5	-0.8	-0.7		...	...
Other identified debt-creating flows	-0.4	-1.2	-0.6			0.0	-0.5	0.1	0.1	-0.4	-0.3		-0.1	0.0	
Residual, including asset changes	2.3	1.2	-1.2			-0.1	2.9	1.5	0.1	0.4	-0.2		0.0	0.3	
Other Sustainability Indicators															
PV of public sector debt	53.3	44.0	48.4			51.0	58.2	63.5	62.1	61.5	60.3		53.4	45.5	
o/w foreign-currency denominated	27.5	25.0	32.6			37.1	44.1	49.5	49.9	49.2	48.8		44.5	38.5	
o/w external	27.5	25.0	32.6			37.1	44.1	49.5	49.9	49.2	48.8		44.5	38.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	9.1	4.1	4.2			13.3	14.7	13.7	9.6	9.6	9.9		9.7	10.2	
PV of public sector debt-to-revenue and grants ratio (in percent)	180	152	161			175	204	215	215	224	221		196	172	
PV of public sector debt-to-revenue ratio (in percent)	221	181	193			222	255	254	250	248	244		211	178	
o/w external 3/	114	103	130			161	193	198	201	199	197		176	150	
Debt service-to-revenue and grants ratio (in percent) 4/	19.9	17.0	14.8			20.0	23.0	18.3	18.9	20.3	22.6		27.5	33.3	
Debt service-to-revenue ratio (in percent) 4/	24.4	20.3	17.7			25.4	28.8	21.6	22.1	22.5	24.9		29.6	34.4	
Primary deficit that stabilizes the debt-to-GDP ratio	14.7	12.9	2.0	9.9	6.9	4.3	-0.7	1.1	5.1	5.8	5.9	3.6	3.7	2.2	3.3
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	10.8	7.8	5.9	7.1	2.5	4.1	5.0	5.5	7.0	7.1	6.9	5.9	5.0	4.9	5.1
Average nominal interest rate on forex debt (in percent)	1.1	1.1	1.1	1.3	0.3	0.5	1.6	1.5	1.6	1.9	1.9	1.5	2.1	2.5	2.2
Average real interest rate on domestic debt (in percent)	-2.6	-3.7	3.1	2.3	4.7	2.9	5.3	3.2	1.9	-0.1	0.7	2.3	0.5	1.1	0.9
Real exchange rate depreciation (in percent, + indicates depreciation)	-13.7	-13.6	7.8	-0.9	13.4	-4.8	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	6.9	7.9	1.4	2.7	3.7	3.0	0.9	1.4	3.1	4.2	3.2	2.6	3.4	2.8	3.2
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	-0.1	0.1	0.1	0.2	0.3	0.1	0.1	-0.1	0.0	0.1	0.1	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	24.3	22.4	28.3	31.9	17.6	16.5	23.5	16.4	11.1	...

Sources: Country authorities; and staffs estimates and projections.

1/ Includes central government and central bank. External liabilities on a gross basis except SDR allocation (not included in nominal debt because its present value is zero). Domestic liabilities net of Treasury deposits at the central bank.

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

3/ Revenues excluding grants.

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

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

Table 4. Cape Verde: Sensitivity Analysis for Key Indicators of Public Debt 2009-2029

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	51	58	64	62	61	60	53	46
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	51	54	55	55	56	56	58	73
A2. Primary balance is unchanged from 2009	51	58	63	65	68	70	87	130
A3. Permanently lower GDP growth 1/	51	59	65	65	65	65	65	81
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	51	59	65	65	64	64	58	55
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	51	61	69	67	67	66	59	52
B3. Combination of B1-B2 using one half standard deviation shocks	51	58	62	61	60	59	52	43
B4. One-time 30 percent real depreciation in 2010	51	73	77	75	74	72	65	63
B5. 10 percent of GDP increase in other debt-creating flows in 2010	51	69	74	73	72	70	63	55
PV of Debt-to-Revenue Ratio 2/								
Baseline	175	204	215	215	224	221	196	172
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	175	190	188	193	205	207	217	277
A2. Primary balance is unchanged from 2009	175	203	211	224	247	258	320	492
A3. Permanently lower GDP growth 1/	175	206	220	223	237	238	238	306
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	175	206	220	223	234	233	215	207
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	175	214	232	233	243	240	216	196
B3. Combination of B1-B2 using one half standard deviation shocks	175	202	211	211	220	217	190	164
B4. One-time 30 percent real depreciation in 2010	175	257	262	259	270	265	240	239
B5. 10 percent of GDP increase in other debt-creating flows in 2010	175	241	251	252	262	259	232	209
Debt Service-to-Revenue Ratio 2/								
Baseline	20	23	18	19	20	23	28	33
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	20	23	17	17	16	15	28	54
A2. Primary balance is unchanged from 2009	20	23	18	19	20	22	47	102
A3. Permanently lower GDP growth 1/	20	23	18	19	21	24	33	58
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	20	23	18	19	21	23	30	38
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	20	23	19	20	23	28	31	36
B3. Combination of B1-B2 using one half standard deviation shocks	20	23	18	19	19	21	25	29
B4. One-time 30 percent real depreciation in 2010	20	25	22	22	25	28	40	59
B5. 10 percent of GDP increase in other debt-creating flows in 2010	20	23	20	21	32	34	35	40

Sources: Country authorities; and staffs estimates and projections.

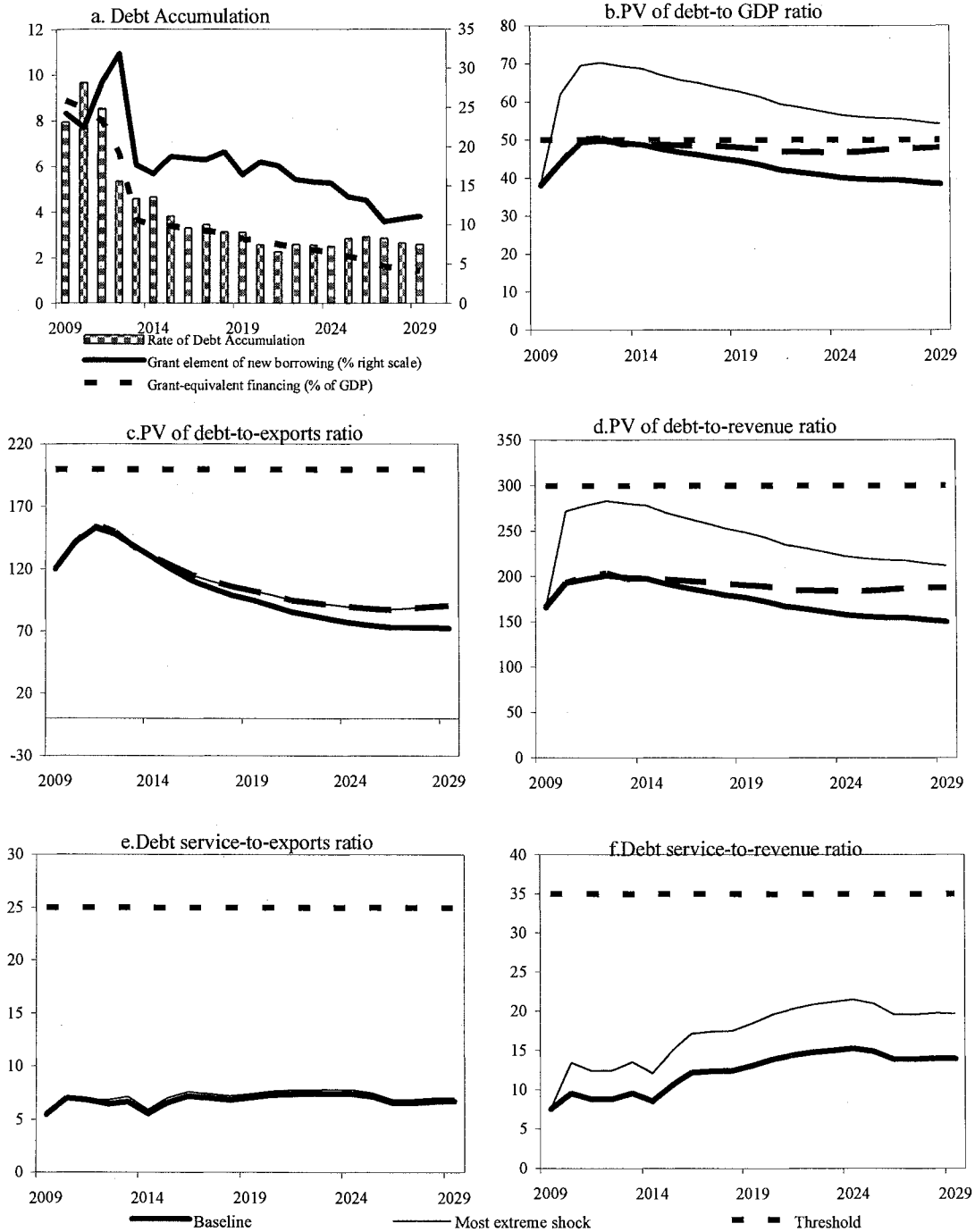
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

Table 5. Cape Verde: Assumptions of the Alternative Macroframeworks, 2010-2028

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2023	2028
Real GDP growth rate											
Low growth	5.0	5.5	7.0	4.6	4.4	3.7	2.8	2.5	5.0	4.9	4.9
Baseline	5.0	5.5	7.0	7.1	6.9	6.2	5.3	5.0	5.0	5.0	4.9
High growth	5.0	5.5	7.0	9.6	9.4	8.7	7.8	7.5	5.0	5.0	5.0
Export growth											
Low growth	3.8	11.0	15.6	14.7	14.8	13.6	13.6	13.7	12.6	9.9	7.1
Baseline	3.8	11.0	15.6	17.5	17.7	16.5	15.2	13.9	12.6	9.9	7.1
High growth	3.8	11.0	15.6	22.7	25.8	23.6	18.4	17.1	11.3	9.9	7.0
Overall fiscal balance (percent of baseline GDP)											
Low growth	-9.9	-10.0	-6.0	-5.8	-4.6	-4.2	-4.1	-4.1	-4.1	-4.1	-4.1
Baseline	-9.9	-10.0	-6.0	-5.8	-5.5	-4.4	-4.3	-4.3	-3.9	-3.4	-3.1
High growth	-9.9	-10.0	-6.0	-5.8	-4.5	-3.1	-2.5	-2.0	-1.9	-2.1	-2.0
Government revenues, excl. grants (billion CVE)											
Low growth	33.8	39.6	43.4	48.3	51.9	56.6	60.5	65.0	71.1	106.8	157.6
Baseline	33.8	39.6	43.4	48.3	53.3	59.2	64.7	70.9	77.4	115.8	170.7
High growth	33.8	39.6	43.4	48.3	55.3	63.3	71.2	80.2	87.5	130.6	192.1
Government revenues, excl. grants (percent of baseline GDP)											
Low growth	22.8	25.0	24.8	24.8	24.1	23.7	23.3	23.0	23.1	23.4	23.6
Baseline	22.8	25.0	24.8	24.8	24.7	24.8	24.9	25.1	25.2	25.4	25.6
High growth	22.8	25.0	24.8	24.8	25.7	26.6	27.4	28.4	28.5	28.6	28.8
Total expenditures (billion CVE)											
Low growth	57.1	62.7	61.0	64.7	67.0	72.0	76.7	82.0	89.3	131.4	190.5
Baseline	57.1	62.7	61.0	64.8	70.5	75.4	81.6	89.1	95.8	137.9	197.6
High growth	57.1	62.7	61.0	65.0	70.8	76.8	84.3	92.9	100.6	147.8	212.4
Total expenditures (percent of baseline GDP)											
Low growth	38.5	39.6	34.9	33.2	31.1	30.2	29.5	29.0	29.0	28.8	28.5
Baseline	38.5	39.6	34.9	33.2	32.7	31.6	31.4	31.5	31.1	30.2	29.6
High growth	38.5	39.6	34.9	33.3	32.9	32.2	32.5	32.9	32.7	32.4	31.8
Net external borrowing (percent of baseline GDP)											
Low growth	11.0	10.6	6.5	4.4	3.5	3.6	3.2	3.3	3.4	3.4	3.6
Baseline	11.0	10.6	6.5	4.4	4.4	3.8	3.3	3.5	3.3	2.7	2.6
High growth	11.0	10.6	6.5	4.4	3.4	2.5	1.6	1.3	1.3	1.4	1.5
Nominal GDP (billion CVE)											
Low growth	148.2	158.5	174.9	190.1	206.1	223.0	238.0	254.2	276.7	410.7	602.1
Baseline	148.2	158.5	174.9	195.2	215.3	238.3	259.6	282.5	307.6	455.8	667.6
High growth	148.2	158.5	174.9	200.8	227.7	258.9	289.7	323.3	351.6	519.9	760.3
GDP per capita (Euros, current prices)											
Low growth	2,570	2,696	2,919	3,114	3,311	3,515	3,681	3,858	4,119	5,559	7,412
Baseline	2,570	2,696	2,919	3,196	3,459	3,756	4,015	4,287	4,580	6,171	8,218
High growth	2,570	2,696	2,919	3,287	3,659	4,081	4,480	4,906	5,235	7,039	9,358

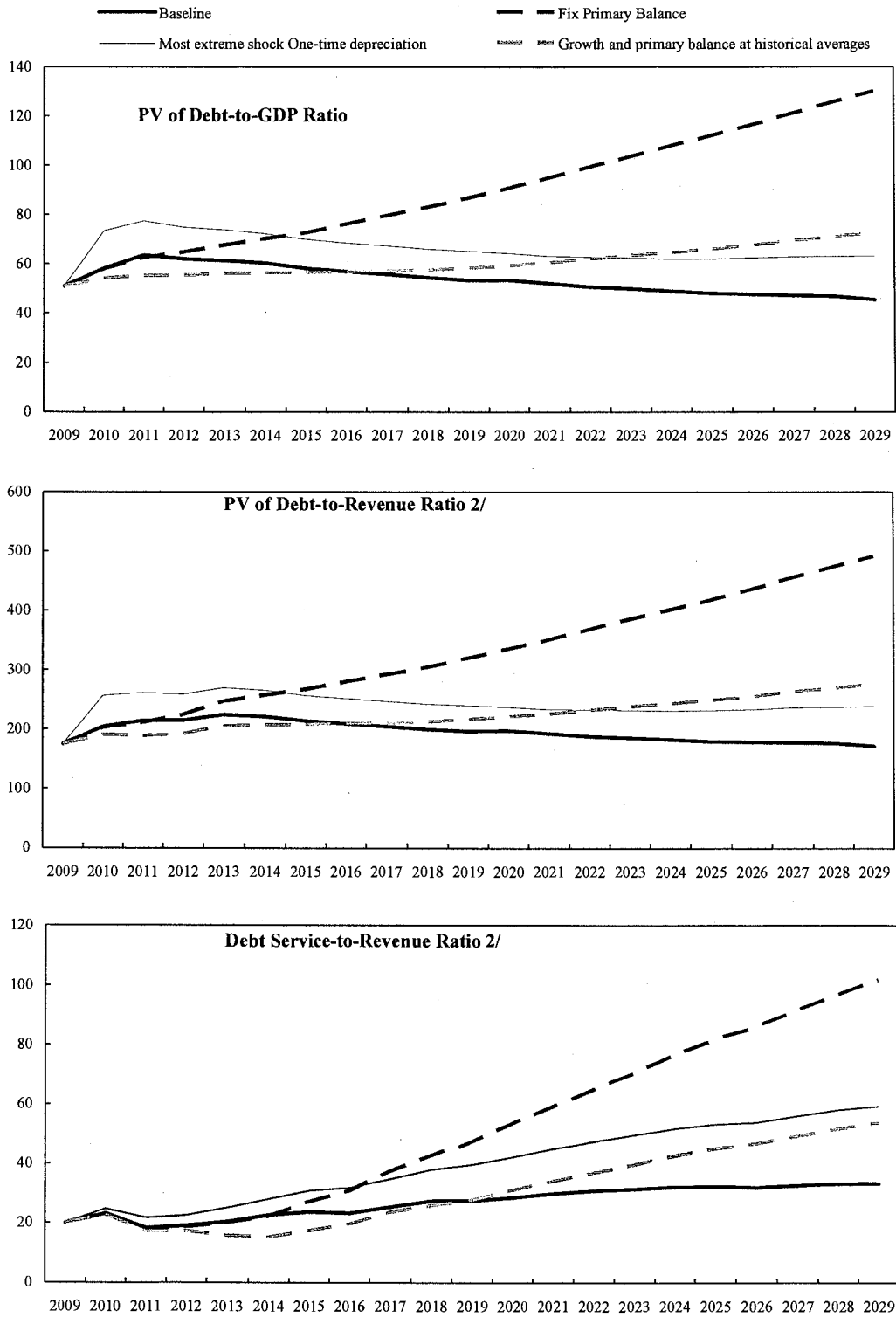
Figure 1. Cape Verde: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2009-2029 1/



Source: Staff projections and simulations.

1/ The most extreme stress test is the test that yields the highest ratio in 2019. In figure b, it corresponds to a Most extreme shock One-time depreciation shock; in c, to a Terms shock; in d, to a One-time depreciation shock; in e, to a Exports shock and in picture f, to a One-time depreciation shock

Figure 2. Cape Verde: Indicators of Public Debt Under Alternative Scenarios, 2009-2029 1/



Sources: Country authorities; and staffs estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019.

2/ Revenues are defined inclusive of grants.