

TAJIKISTAN: JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

This DSA updates the previous DSA prepared in early 2006. Since then, Tajikistan has received debt relief from the IMF under MDRI (SDR69.3 million), and also contracted US\$604 million of debt from China to finance projects in infrastructure and energy sector. In addition the government of Tajikistan intends to contract US\$400 million of debt from China to build a hydroelectric power station. Therefore, despite the MDRI relief, debt distress risk has increased significantly and could be now classified as high. Under the baseline scenario, the ratios of NPV of debt to GDP, exports, and revenue breach their policy-dependent thresholds in the medium term, but improve over time. The ratio of NPV of debt to exports, however, is projected to remain above the threshold throughout the projected period. The breach of the thresholds is more severe under stress tests reflecting potential macroeconomic shocks, and significant additional borrowing. The ratios for debt service payments to exports and revenue are expected to remain below the thresholds under the baseline scenario. However, under stress tests and alternative scenarios, these ratios would also breach the thresholds.

DATA AND METHODOLOGY¹

The DSA focuses mainly on external public and publicly guaranteed (PPG) debt.

Government and government guaranteed debt includes debt directly contracted or guaranteed by the government,² and partially includes public sector nonguaranteed debt.³ To the extent that the information on the stock of private debt is available from the authorities (in 2005 the NBT started compiling inventory of external private sector debt not guaranteed by the government), it is incorporated into the DSA. As for domestic debt, domestic securitized public debt stands at \$53 million and consists of government securities in the amount of \$47 million held by the NBT and government guarantees to finance cotton sector in the amount

¹ This DSA was conducted jointly by Fund and World Bank staff and in collaboration with the authorities, using the debt sustainability framework for low income countries. It has benefited from Fund and Bank staff consultations with the ministry of finance during missions to Dushanbe in October–November 2006 and January 2007, and included a full reconciliation of debt data. The Low-Income Countries (LICs) DSA uses (a) the current year exports as denominators for estimating debt-to-exports ratio; (b) the WEO exchange rate projections for estimating debt stocks and debt service; and (c) a 5 percent discount rate.

² Tajikistan has some “disputed” government guaranteed debt from the period prior to 1998, when guarantees were issued in ad hoc manner; the estimated amount of guarantees is about \$50 million. In 1999, the issuance of guarantees was centralized at the MoF. The disputed guarantees were not included in the DSA given that exact terms, conditions, and government repayment obligations were not known at the time of this analysis. However, even if these guarantees were recognized as valid, given the small amount involved (about 6 percent of total PPG debt at end-2006), including them in the DSA would not change the main results.

³ Coverage of public sector nonguaranteed debt is limited to debt on which debt service is likely to be assumed by the government.

of \$7 million.⁴ At present, given its small size, incorporating domestic debt into the analysis will not materially affect the results of the DSA. However, in the future the evolution of public domestic debt will need to be monitored closely with the view to incorporating it into the DSA.

Tajikistan's External Debt Situation

Tajikistan has continued to meet its external PPG debt obligations on a timely basis and to seek relief from its creditors. Since a large share of loans has been provided on a concessional basis, debt service obligations remain manageable. In 2006, Tajikistan obtained rescheduling of debt from Iran—no debt service payments are expected until 2008 on US\$25 million loan, and maturity is extended by two years to 9 years—and Uzbekistan—US\$8 million of debt service payment in 2006 and 2007 are rescheduled to 2008.

Debt relief under MDRI and contracting of loans from China were two major developments in 2006 that affected the external debt situation in Tajikistan. In January 2006, Tajikistan qualified for debt relief from the IMF under MDRI and was granted debt relief amounting to SDR 69.3 million (\$100 million).⁵ Following debt relief, however, Tajikistan contracted debt from China in the amount of \$604 million to finance projects in infrastructure and energy sector.⁶ While the debt was granted on concessional terms with 40 percent grant element, its size (25 percent of 2006 GDP) and uncertainty regarding economic impact of the projects increased risks to debt sustainability⁷. However, with no disbursement on loans from China in 2006 nominal PPG debt-to-GDP ratio continued to decline, reaching 31 percent at the end of the year mainly on account of strong GDP growth.

In 2007, the contracting of an additional US\$400 million of debt from China is expected to increase the risk of debt problems in the medium-term. The authorities have indicated that they are pursuing additional financing from China for construction of new hydropower plants. While concessional terms are expected, the exact details of the financing agreement have not been worked out yet. Regardless of the terms, the rapid accumulation of debt will further increase risks to debt sustainability (see the baseline scenario). It is estimated that following the disbursement of loans from China, nominal PPG

⁴ However, given the large size of government deposits at the NBT, the NBT remains a net debtor the government.

⁵ Debt relief was granted on the basis that Tajikistan's income per capita was below \$380 in 2004. Under MDRI, Tajikistan was provided debt relief on stock of outstanding debt as of end-2004.

⁶ \$281.2 million loan was contracted by the government to finance the construction of the road connecting Dushanbe and the northern part of Tajikistan. Two loans—\$267.2 million for construction of a North-South electricity transmission line and \$58.1 million for construction of Lolazor-Khatlon electricity transmission lines—were contracted for on-lending to Barki Tajik, which is expected to service the debt.

⁷ While preliminary indications are that the projects will increase Tajikistan's export potential, a thorough analysis to assess the economic impact of the projects has not been undertaken yet.

debt-to-GDP ratio will increase to 57 percent of GDP by 2009, or by 26 percent in three years, remaining, however, below its 2000 level of 96 percent.

Potential bail out of cotton sector by the government poses additional risk to debt sustainability. Political pressure has been building up to provide financing to agriculture (cotton sector), as reflected in the recent decision by the NBT to contract \$10 million debt for on-lending to agriculture. By various estimates the debt accumulated by the cotton sector ranges between \$90 and \$300 million. While the resolution of the debt issue has been on the agenda of the government, no clear cut solution has yet emerged. Given that the government assigns high social importance to the cotton sector, there is a probability that the government will assume the debt, at least partially, or will subsidize future lending to the sector. This DSA tests the worst case scenario under which the government assumes 100 percent of cotton sector debt under the assumption that the total amount of debt will be equal to \$300 million.⁸

Baseline Scenario

The baseline scenario, developed on a cautious set of assumptions about economic policies and outcomes (Box 1), shows that Tajikistan's debt is sustainable, but is at a high risk of debt distress. According to the latest three-year average World Bank's CPIA rating, Tajikistan's policies and institutions are assessed as those corresponding to a "poor performer."⁹ The debt-burden thresholds for countries in this category are: (a) NPV of debt-to-exports of goods and services of 100 percent; (b) NPV of debt-to-GDP of 30 percent; and (c) NPV of debt-to-fiscal revenue of 200 percent. The relevant debt service thresholds are: (a) 15 percent of exports of goods and services; and (b) 25 percent of revenues.

⁸ Although this is an unlikely scenario, this could also be a proxy for a stress test for additional concessional lending. There are indications that the authorities could continue to pursue additional significant project financing from China and other donors.

⁹ Three-year average of CPIA ratings is used according to recently issued guidelines on DSA for LIC (SM/06/364). These guidelines aim at a more conservative and less volatile assessment of risk than that based on a single latest CPIA rating. For Tajikistan, however, the use of the latest CPIA ratings would not change the assessment of risk in this DSA. Indeed, according to the latest 2005 CPIA rating, Tajikistan is placed into a "medium performer" category implying higher policy dependent thresholds. However, even these thresholds are breached in the medium term--albeit by a smaller margin--pointing to increased risk to debt sustainability.

Box 1. Tajikistan: Macroeconomic Assumptions

Real GDP is projected to grow at about 8 percent per year until 2011, and at 6.5 percent between 2012 and 2026. This figure is slightly above its ten-year historical average of 6.1 percent, but well below its latest five-year (post-Russian crisis) average of 9.4 percent. Growth is driven by exports, FDI, and expanding nontraditional sectors (services, textile, and non-cotton agriculture), as well as continued inflows of remittances.

Export of goods and services is projected to grow at a rate of 10 percent through 2012, reflecting expansion in nontraditional sectors and strong external demand, and at 7 percent thereafter as economy will be expanding following investment in the energy sector and in response to stable macroeconomic environment and progress with structural reforms.

Current account is expected to sharply deteriorate in 2007–2009 (to -15.3 percent of GDP in 2008) due to increase in imports financed by loans from China, but will improve in 2010 following the completion of the projects. Thereafter, the current account deficit excluding loans from China is expected to remain at about 4 percent as imports and exports are expected to grow at the same pace and financing will be constrained to official financing on concessional terms and stable FDI inflows. The net foreign transfer inflows (driven by remittances) are assumed to remain strong but decline from 36 to 20 percent of GDP from 2006 to 2026 as economy picks up. The **reserve coverage** of imports is projected to build up gradually to 3 months of imports by 2026.

The fiscal stance continues to be prudent. During 2006–2010, revenues excluding grants will increase from 19.3 to 19.5 percent of GDP, and then further to 21 percent by 2026. Expenditure, excluding foreign financed PIP, will increase at the same pace leaving fiscal deficit, excluding foreign-financed PIP and MDRI related spending broadly unchanged.

Official external loan financing (on concessional terms) is projected to peak at 15.4 percent of GDP in 2008 and then decline to 4 percent by 2010 and remain at that level thereafter. After 2012, the DSA assumes that no new grants will be disbursed during the projected period.

Under the baseline scenario, three of Tajikistan’s external debt burden indicators are projected to breach policy-dependent thresholds following the rapid disbursement of loans from China (Table 1 and Figure 1). In particular, by 2009 the NPV of debt-to-exports of goods and services ratio will reach 186 percent, exceeding the threshold of 100 percent by a significant margin. The NPV of debt-to-GDP will be at 44 percent, also significantly exceeding the 30 percent threshold, and NPV of debt-to-revenue will reach 227 percent exceeding the 200 percent threshold as well. By 2026, however, these ratios are expected to decline to 136, 23, and 107 percent, respectively. The NPV of debt-to-export ratio, however, while on a declining path, will remain above its threshold over the years, underscoring the importance of implementing the relevant structural reforms targeted at increasing the GDP and export potential of Tajikistan.¹⁰

External debt service ratios are expected to stay below their thresholds over the entire period. During the projected period, debt service payments continue to be manageable, with the assumption that all of Tajikistan’s external PPG debt has been contracted on concessional terms, albeit spiking during the years when principal payments on loans from

¹⁰ Substantially lower than projected net foreign transfer inflows in the outer years (for example, due to a deteriorating regional economic situation) would likely lower imports, exports, and real GDP growth, with a possibility of the NPV of debt-to-export ratio marginally exceeding its policy-relevant threshold in those years.

China fall due. In particular, the NPV of debt-to-revenue ratio would remain comfortably below 25 percent, peaking in 2014 at 17 percent and declining thereafter to 11 percent. The debt service-to-export ratio will peak at 14 percent, slightly below the 15 percent threshold, but then decline to 6 percent.

Alternative Scenarios and Bound Tests

The historical scenario is based on averages from 1998 to 2005, and thus reflects a period of macroeconomic consolidation, some progress with structural reforms, and debt reduction.¹¹ During 1998–2005, the current account deficit was relatively small as financing was limited, and growth was high as the economy was growing from a low level. Therefore, under this scenario, not only do all debt burden ratios remain well below the threshold indicators, they also follow a downward trend throughout the projection period. While the scenario illustrates the importance of preserving macroeconomic stability, progress with structural reforms and continued prudent debt management, the scenario is not very useful as a benchmark against which the current debt situation can be assessed because both the conditions of the economy and its external environment have changed dramatically.

A scenario incorporating additional \$300 million borrowing on concessional terms in 2007 to bail out the cotton sector shows increased risk of debt distress compared to the baseline scenario. In particular, all ratios, except debt service-to-revenue will breach their respective thresholds. The ratios of NPV of debt to GDP, exports, and revenue follow the baseline pattern, but exceed the thresholds sooner and by a higher margin compared to the baseline scenario. The ratio of debt service-to-exports breaches its 15 percent threshold in 2012-13, but then declines by the end of the projection period (Table 2 and Figure 1).

A high-investment low-growth scenario underscores the risk to debt sustainability of the current debt-based development strategy. Rapid accumulation of debt together with uncertainty regarding the impact of investments financed by China on growth tests the robustness of the conclusions of the baseline scenario. This alternative scenario shows that if growth were to come at half the rate forecast by the authorities, all ratios, except for debt service-to-revenue, will breach and remain above or very close to their respective thresholds. Moreover, the ratio of NPV of debt-to-export increases and becomes unsustainable (Table 3 and Figure 1).

A relaxation of the authorities' current prudent approach to contracting external debt only on concessional terms would lead to a deterioration of Tajikistan's external debt indicators compared to the baseline scenario. If all new borrowing were to be contracted on less than concessional terms during the projection period, Tajikistan's NPV debt-to-GDP ratio would rise substantially. Specifically, with the increase in the average interest rate on

¹¹ The 1995–97 period has been excluded from historical average scenario due to disruptions from civil war. The average values for the 1998–2005 period are calculated for current account deficit, real GDP growth, GDP deflator in \$ terms, export growth, net transfers and FDI to GDP ratios.

new disbursements by 2 percentage points, the NPV of debt-to-GDP ratio would rise to 50 percent by 2009 and slowly decline afterwards to 34 percent by 2026 remaining above 30 percent threshold throughout the projected period. The ratios of NPV of debt-to-exports and debt service-to-exports would also rise to 215 and 19 percent, respectively, and remain above their thresholds at a roughly steady level during the projected period. The NPV of debt-to revenue ratio will peak at 261 percent in 2009, but then decline to 162 percent at the end of the projected period (Table 4 and Figure 1).

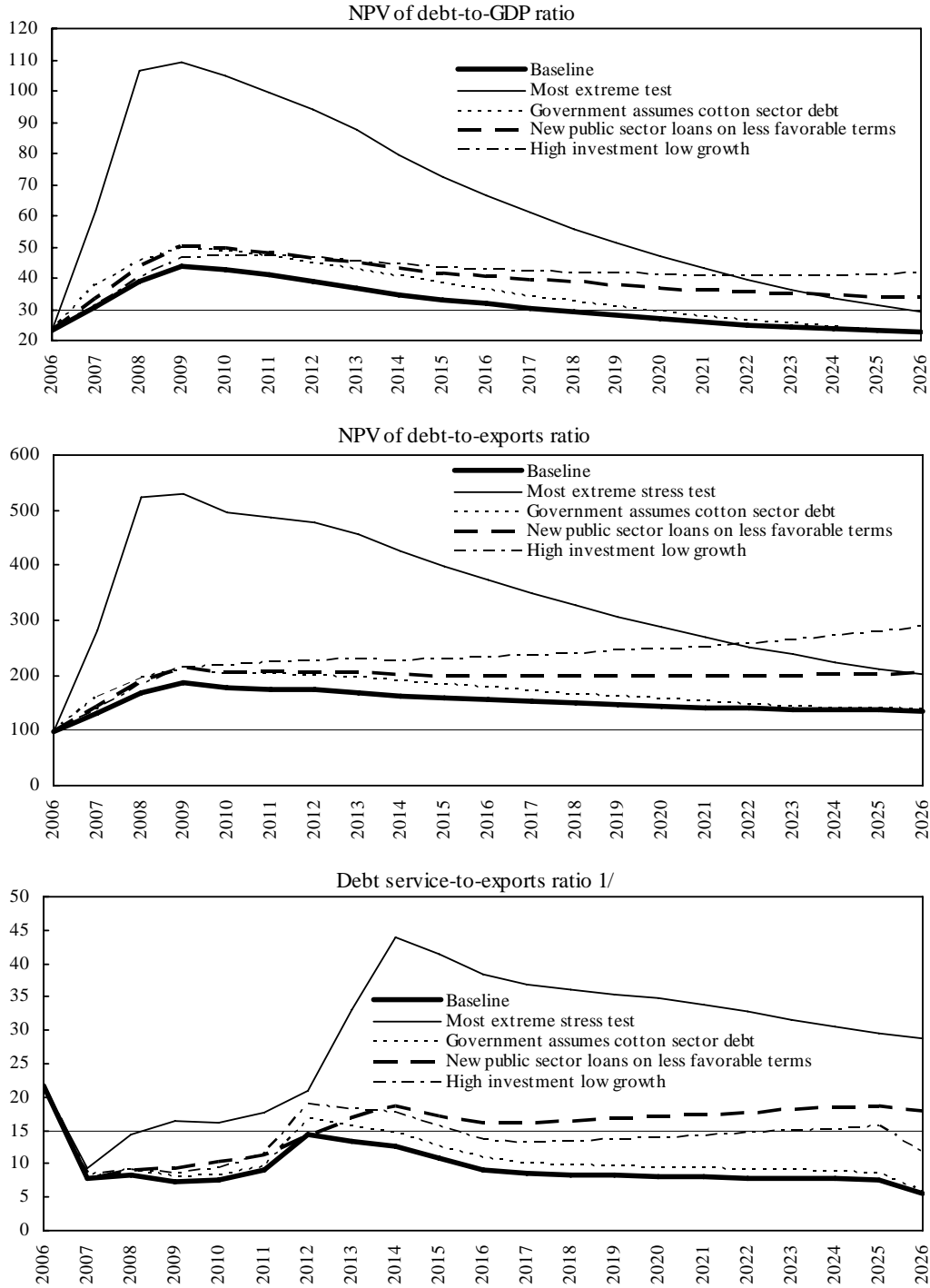
Bound tests show that adverse macroeconomic shocks would also have a profound negative impact on Tajikistan’s external position. In the event of a combined shock (to real GDP growth, exports growth, FDI inflows), all ratios would exceed the policy-dependent thresholds by a significant margin. In particular, Tajikistan’s NPV of debt-to-GDP ratio would rise to 109 percent by 2009, falling below the policy-dependent threshold of 30 percent only by 2026. The same shock would also significantly worsen the NPV of debt-to-revenues ratio, which would jump to 565 percent in 2009 and stay above the threshold of 200 percent until 2022.¹² The ratios of the NPV of debt-to exports and debt service-to-exports would increase to 531 and 44 percent, respectively, and while on a declining path, would remain above the thresholds throughout the projected period. Debt service-to-revenue ratio would also exceed the threshold between 2013 and 2022, but would decline below the threshold after 2022.

Conclusions

Tajikistan’s risk of debt distress has increased significantly and has become high. The results of the alternative scenarios and stress tests indicate that the debt sustainability situation could further deteriorate with negative macroeconomic shocks, borrowing on nonconcessional terms or incurring extra debt—even on concessional terms—in an attempt to bail out the agricultural sector, and could become unsustainable if growth associated with large prospective investment does not materialize. The DSA results thus underscore the need for the authorities to exercise extreme caution in incurring extra debt and vetting projects, making sure that external resources are used productively. Sound macroeconomic policies and the acceleration of structural reforms, especially in the agricultural and electricity sectors, would also be essential for maintaining debt sustainability. By contributing to higher export and output growth, these measures would reduce Tajikistan’s vulnerability to exogenous shocks.

¹² Since Tajikistan is a small open economy with a high share of exports-to-GDP, the debt-to-revenue indicator is an important measure of debt vulnerabilities.

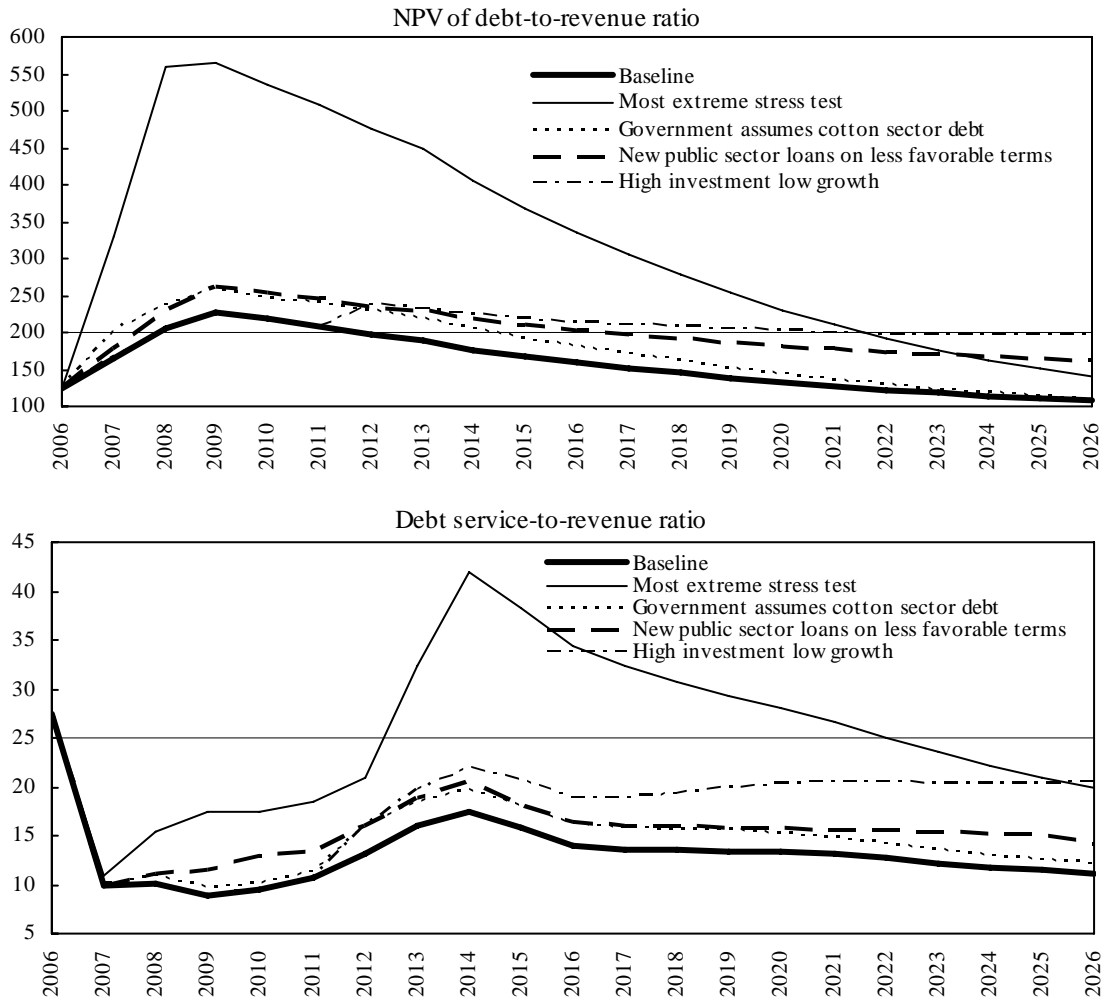
Figure 1. Tajikistan: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2006-2026 (In percent)



Source: Staff projections and simulations.

1/ Spike in the ratio in 2006 reflects debt service to the IMF financed under MDRI.

Figure 1. Tajikistan: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2006-2026 (Concluded)
(In percent)



Source: Staff projections and simulations.

Table 1. Tajikistan: External Debt Sustainability Framework, Baseline Scenario, 2006-2026 1/
(In percent of GDP, unless otherwise indicated)

	Actual				Historical Average 6/	Standard Deviation 6/	Projections								2006-11 Average		2012-26 Average	
	2002	2003	2004	2005			2006	2007	2008	2009	2010	2011	2016	2026				
External debt (nominal) 1/	106.3	83.5	55.3	50.4			40.9	49.4	58.7	63.6	60.9	56.4		44.8	38.1			
o/w public and publicly guaranteed (PPG)	78.9	63.7	39.7	37.7			30.6	40.3	50.5	56.2	54.2	50.5		41.3	36.9			
Change in external debt	-16.9	-22.8	-28.2	-4.8			-9.6	8.5	9.3	4.8	-2.7	-4.5		-1.2	0.1			
Identified net debt-creating flows	-16.3	-25.2	-30.1	-5.5			-2.8	10.2	9.4	4.6	-2.8	-2.4		0.0	1.3			
Non-interest current account deficit	-0.9	-3.4	1.0	0.6	0.2	2.5	0.3	13.1	13.3	9.3	2.5	2.7		3.7	4.6		4.1	
Deficit in balance of goods and services	10.8	10.1	11.6	26.8			34.8	50.8	50.0	44.6	35.9	34.2		29.6	23.1			
Exports	66.8	63.4	58.4	26.0			23.8	23.4	23.2	23.5	24.1	23.4		20.4	16.6			
Imports	77.6	73.5	70.0	52.8			58.5	74.1	73.2	68.1	60.0	57.6		50.0	39.7			
Net current transfers (negative = inflow)	-12.0	-14.6	-11.4	-27.5	-9.5	7.7	-35.8	-39.0	-38.0	-36.5	-34.7	-32.6		-27.1	-19.9		-24.9	
Other current account flows (negative = net inflow)	0.3	1.2	0.8	1.4			1.3	1.3	1.3	1.2	1.2	1.2		1.2	1.3			
Net FDI (negative = inflow)	-3.0	-2.0	-13.1	-2.4	-3.1	3.6	-2.3	-2.2	-2.3	-2.3	-2.2	-2.1		-1.9	-1.5		-1.8	
Endogenous debt dynamics 2/	-12.4	-19.8	-18.0	-3.8			-0.7	-0.7	-1.6	-2.4	-3.0	-3.0		-1.9	-1.8			
Contribution from nominal interest rate	4.5	4.6	2.9	1.9			2.2	2.1	2.0	1.9	1.6	1.4		0.9	0.4			
Contribution from real GDP growth	-9.7	-8.3	-6.6	-3.3			-2.9	-2.7	-3.6	-4.3	-4.6	-4.4		-2.7	-2.3			
Contribution from price and exchange rate changes	-7.2	-16.1	-14.2	-2.4			...	...	...	...	...	...		...	...
Residual (3-4) 3/	-0.6	2.4	1.9	0.7			-6.8	-1.7	-0.1	0.3	0.2	-2.1		-1.2	-1.2			
o/w exceptional financing	1.9	0.0	-0.6	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			
NPV of external debt 4/	...	...	...	43.3			33.8	40.0	47.2	51.2	49.4	47.0		35.1	23.8		
In percent of exports	...	...	...	166.3			142.2	171.3	203.3	218.2	205.0	201.0		172.2	143.6		
NPV of PPG external debt	...	...	...	30.6			23.4	30.9	39.0	43.8	42.7	41.1		31.6	22.6		
In percent of exports	...	...	...	117.5			98.7	132.2	167.9	186.7	177.4	175.7		155.1	136.2		
In percent of revenue	...	...	...	158.1			125.1	164.8	204.4	226.8	217.9	209.3		159.0	107.9		
Debt service-to-exports ratio (in percent)	13.3	11.2	28.1	15.7			29.6	14.8	14.3	11.7	10.4	16.6		10.5	6.1			
PPG debt service-to-exports ratio (in percent)	10.4	8.2	25.9	12.9			21.7	7.9	8.2	7.3	7.7	9.0		9.1	5.5			
PPG debt service-to-revenue ratio (in percent)	...	...	...	13.5			27.5	9.9	10.0	8.9	9.5	10.8		14.1	11.1		
Total gross financing need (billions of U.S. dollars)	0.1	0.0	0.1	0.1			0.1	0.5	0.5	0.4	0.1	0.2		0.3	0.8			
Non-interest current account deficit that stabilizes debt ratio	16.0	19.4	29.2	5.5			9.8	4.6	3.9	4.4	5.1	7.2		5.0	4.5			
Key macroeconomic assumptions																		
Real GDP growth (in percent)	9.1	10.2	10.6	6.7	6.1	4.8	7.0	7.5	8.0	8.0	8.0	8.0	7.8	6.5	6.5	6.6		
GDP deflator in US dollar terms (change in percent)	6.2	17.9	20.6	4.5	10.4	27.6	13.7	3.9	1.9	1.9	1.9	2.9	4.4	2.9	2.9	2.9		
Effective interest rate (percent) 5/	4.2	5.7	4.6	3.7	4.0	2.0	5.3	5.6	4.5	3.5	2.7	2.6	4.0	2.0	1.2	1.8		
Growth of exports of G&S (US dollar terms, in percent)	8.8	23.2	22.9	-50.3	0.0	22.9	11.0	9.9	9.5	11.2	13.0	7.8	10.4	7.0	7.7	7.2		
Growth of imports of G&S (US dollar terms, in percent)	9.7	22.9	27.1	-15.9	4.2	14.8	34.8	41.5	8.7	2.3	-2.9	6.5	15.2	6.3	7.4	7.0		
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	29.4	26.1	25.4	26.0	30.1	30.1	27.8	30.1	30.1	30.1	
<i>Memorandum item:</i>																		
Nominal GDP (billions of US dollars)	1.2	1.6	2.1	2.3			2.8	3.1	3.5	3.8	4.2	4.7		7.5	18.7			

Source: Staff simulations.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g)] / (1+g+\rho+g)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that NPV 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.

