

Restoring Sustainability in a Global Environment

Options for Swaziland



Olivier Basdevant, Emily Forrest, and Borislava Mircheva

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and Borislava Mircheva

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Introduction

The Kingdom of Swaziland (hereinafter “Swaziland”) is a small, open economy bordering Mozambique and South Africa with a population of 1.1 million people. It is a landlocked country with an economy heavily dependent on concentrates, sugar exports, and tourism, and with more than 80 percent of its imports originating from South Africa. Swaziland is a member of the Southern African Customs Union (SACU) and has increasingly relied on SACU transfers in the last few years as a source of fiscal revenue and foreign exchange receipts. Its currency, the lilangeni, is pegged at parity with the South African rand under the Common Monetary Area (Box 1). The rand is also legal tender in Swaziland.

After two difficult fiscal years,¹ Swaziland has regained fiscal space with a sharp increase in transfers from the Southern African Customs Union. The deficits accumulated during these two fiscal years (13.4 and 6.0 percent of GDP in 2011/12 and 2012/13, respectively) led to: (i) a significant drawdown of gross official reserves at the central bank, (ii) significant domestic borrowing, and (iii) an accumulation of domestic payment arrears, estimated at E 1.6 billion (5.4 percent of GDP) at end-March 2012. Arrears largely affected pension funds and government suppliers (each account for about 40 percent of the total stock of arrears). As a result, real GDP growth is projected to contract by 1.5 percent in 2012, mostly because of the accumulated arrears, a stagnant credit to the private sector, and weak confidence in Swaziland fiscal and external sustainability. With SACU transfers increasing from about 10 percent of GDP in 2011/12 to 22.5 percent in 2012/13, some fiscal space was regained. The windfall revenue has been used to repay an advance taken by the central bank and to reduce arrears by E 250 million as of end-September 2012. An additional E 720 million in arrears to the public pension fund have been restructured into a three-year loan. Higher SACU transfers have also improved external balances by reducing the current

¹ The fiscal year in Swaziland runs from April 1 to March 31 of the following year.

account deficit and increasing central bank reserves. Reserves are broadly adequate at E 6.0 billion (3.1 months of imports) at end-November 2012, a significant improvement from the E 3.7 billion recorded at end-March 2012.

Measures have been taken by the authorities to reduce Swaziland's vulnerabilities. Revenue collection was improved with the successful introduction of a value-added tax (VAT) in April 2012, complemented with continued improvements in revenue administration. Moreover, a new PFM bill has been drafted, with technical assistance from the IMF, which is expected to be presented to parliament in early 2013. Furthermore, a new supervisory agency, the Financial Services Regulatory Authority (FSRA), became operational in late 2012. The FSRA is taking upon the supervision of non-bank financial institutions and working towards the creating and implementation of a regulatory framework.

While these implemented measures are a positive step, Swaziland's external position is still unsustainable partly because of the additional need for fiscal adjustment (Table 1), and partly because of potential spillovers of adverse shocks in the global economy (Chapter II). The large fiscal imbalances in the last two years have had a negative impact on the external current account balance and the gross official reserve position of the central bank (Chapter III). This weakening of the fiscal and external positions has in turn had a negative impact on the private and financial sectors (Chapter IV), thus creating additional external vulnerabilities. Restoring confidence in the Swaziland economy would require implementing an adequate fiscal adjustment and promoting private-sector-led growth (Chapter V).

Box 1. The Common Monetary Area (CMA)¹

The Common Monetary Area (CMA) is a monetary union in which Lesotho, Namibia, and Swaziland have linked their domestic currencies to the South African rand. Within the CMA, each country issues its own currency, and bilateral agreements define where these currencies are legal tender. The smaller countries (Lesotho, Namibia, Swaziland—LNS) have pegged their currency 1-to-1 to the South African rand. The South African Reserve Bank (SARB) has adopted an inflation targeting system and lets the rand float freely against other major currencies. The South African rand is also legal tender in all member countries of the CMA, while the LNS currencies are only legal tender in their own country.

The CMA is not a full currency union. There is no common central bank, no common pool of reserves, and no regional surveillance of domestic policies. The exchange rate

¹ See Wang and others (2007) for further discussion on the CMA.

Box 1. (concluded)

arrangements of the smaller countries under the CMA share certain characteristics of a currency board—domestic currency issues are required to be fully backed by foreign reserves (except for Swaziland, where it is not a requirement). Unlike a typical currency board, there is no legal restriction prohibiting the central bank of a small member country from acquiring domestic assets. The small member countries have not made an irrevocable commitment to keep a given exchange rate level against the South African rand. Member countries are not required to provide mutual support if the exchange rate peg comes under pressure. There is no formal mechanism for fiscal transfers to cushion the impact of asymmetric shocks. However, the SARB will, on request, make the required foreign exchange available to other members of the CMA.

For LNS, the local currency and the rand are perfect substitutes, with no rand-conversion cost and no restrictions on transfers of funds, whether for current or capital transactions. All four members of the CMA also belong to the Southern African Customs Union (SACU).² As a consequence, capital and goods are highly mobile across the CMA region.³ The close regional integration brings large benefits in normal times to LNS, because they benefit from South African investments and access to the South African market. However, this advantage can reverse itself in the event of a crisis, facilitating capital outflows, notably to South Africa. This is exacerbated even further by the absence of conversion costs between the local currency and the rand.

Contrary to other CMA members, Swaziland has the option to adjust its exchange rate unilaterally under the bilateral agreement of 1992. Unlike the agreements with Lesotho and Namibia, the Swaziland agreement does not require Swaziland to cover its currency in circulation 1-to-1 with the equivalent amount of gross official reserves of the Central Bank of Swaziland (CBS). Swaziland reintroduced the rand as legal tender in 2003.

² Botswana is also a member of SACU but is not a member of the CMA.

³ The only exceptions result from the member countries' investment or prudential liquidity requirements prescribed for financial institutions.

Table 1. External Sector Vulnerabilities

<p>Overall assessment: an unsustainable external position under current policies</p>	<p>Background. The lack of fiscal adjustment has led to a series of external vulnerabilities: a large current account deficit, portfolio outflows, and a weakening reserve position.</p> <p>Potential policy responses. The parity with the South African rand should remain the anchor of macroeconomic stability. Restoring external sustainability would primarily be achieved with fiscal adjustment coupled with structural improvements in external competitiveness. The latter would be achieved with continued progress on creating a favorable environment for higher private sector-led growth.</p>
<p>Current account: vulnerabilities stemming from fiscal imbalances</p>	<p>Background. After a temporary rebound in 2012 and 2013 owing to windfall SACU transfers, the current account deficit is projected to remain unsustainably high at about 7 percent of GDP over the medium term, absent fiscal adjustment.</p> <p>Assessment. Current account developments are largely dominated by the fiscal sector. Priority could be given to reducing the current account deficit by combining a fiscal adjustment and measures to strengthen export-led growth.</p>
<p>Real exchange rate: a strong overvaluation</p>	<p>Background. According to all methods used, the exchange rate remains overvalued in the range of 28–38 percent. The overvaluation largely is a result of fiscal imbalances.</p> <p>Assessment. An adjustment in the parity would not be desirable because Swaziland benefits significantly from having its currency pegged at parity with the South African rand, which is also legal tender. Policy options to reduce the overvaluation should be based on an overall fiscal adjustment of about 6 percent of GDP over the medium term and measures to increase export-led growth.</p>
<p>Capital and financial account: vulnerabilities to portfolio outflows</p>	<p>Background. Swaziland’s financial account is vulnerable to portfolio outflows, while the government has not yet secured external budget support.</p> <p>Assessment. Portfolio outflows raise concerns about financial sector stability. Immediate actions are needed to restore confidence while implementing a strategy to secure external inflows (private investment and external budget support).</p>
<p>FX reserves: A current level broadly adequate, but risks remain</p>	<p>Background. At present, the level of reserves is broadly adequate to cover the potential external vulnerabilities mentioned above.</p> <p>Assessment. A fiscal adjustment strategy would need to be coupled with a strategy to maintain the level of reserves at an adequate level throughout the medium term.</p>
<p>Foreign assets and liabilities position: public debt is unsustainable and would result in reserves depletion</p>	<p>Background. Swaziland’s foreign assets and liabilities are dominated by a projected weakening of the reserve position, and public debt dynamics that would weigh more on reserves than external debt, owing to the lack of access to external financing.</p> <p>Assessment. While the net International Investment Position does not pose an immediate risk, it reinforces the need for buttressing reserves through a growth-enhancing fiscal adjustment.</p>



Swaziland's Interconnection with the Global Economy

Swaziland is highly interconnected with South Africa and with the global economy. As the global economy faces higher risks of adverse shocks, Swaziland may be affected by spillover effects. These shocks would mainly arise from lower demand and increased risk aversion in financial markets, either directly or indirectly through South Africa (IMF 2012a). The spillover effects would come from two core elements: (i) intrinsic vulnerabilities, specific to Swaziland, which are then (ii) aggravated by specific external shocks. This Chapter discusses these two points, while policy issues are discussed in a broader context, in the next section.

A. Understanding Spillovers from the World Economy to South Africa and Swaziland

Swaziland is an economy integrated with the global economy through two main channels: directly, largely with sugar exports to the European Union, and indirectly, through its close economic and financial integration with South Africa.

This section investigates how the interconnections among the global economy, South Africa, and Swaziland play out in defining possible risks to Swaziland's economic outlook. The main possible risks are threefold: (i) a projected downturn in the global economy, if materialized, would negatively affect Swaziland, (ii) financial deleveraging in the South African economy may spread to Swaziland, because its banking sector is dominated by South African banks, and (iii) Swaziland's fiscal position is unsustainable over the medium term, and threatens external sustainability. These latter risks may also have outward spillover effects for Lesotho, Namibia, and South Africa, because these countries have pegged their currency to the South African rand in the CMA (Box 1).

Swaziland faces a variety of risks over the medium term (Table 2):

- The growth outlook for the global economy has significant downside risks, primarily because of uncertainty in advanced economies (IMF, 2012b). These uncertainties could spread to other economies, primarily through a contraction of global demand, which would reduce growth prospects. Another possible risk is a hard landing for fast growing emerging markets. However, this is generally considered as a tail risk for the time being as its impact on South Africa and Swaziland would be different (it would negatively affect commodity prices of many goods produced and exported by sub-Saharan African countries).
- A tail risk of a hike in oil prices, largely as a result of perceived geopolitical risks (IMF, 2012b) could negatively affect the terms of trade in Swaziland, further weakening domestic demand.
- A hypothetical financial deleveraging risk for South Africa is viewed as a tail risk (IMF, 2012c), with a low impact on South African banks. However, a deleveraging, small by South African standards, if materialized, could have serious implications on credit to the private sector in Swaziland. The risk of deleveraging for Swaziland is assessed to be higher, because the perceived higher country risk makes South African banks more likely to deleverage their operations in Swaziland than in other countries.
- Finally, several possible risks are specific to Swaziland and SACU. These risks are broadly classified in two categories. The first category relates to the impact of the global economy on SACU imports that may imply a large decline in SACU transfers over the medium term, which would subsequently require an equally large fiscal adjustment (see Mongardini and others, 2011, and Basdevant and others, 2011). Trade liberalization, expected to happen in the coming years, could reduce the SACU pool as well. Finally, the SACU transfer for 2012/13 is largely due to one-off factors and could revert to lower levels in the coming years. The second category relates to the unsustainable current fiscal policy. Absent a credible fiscal adjustment plan, Swaziland remains exposed to external and fiscal sustainability risks, which could trigger, among other things, portfolio outflows and an unsustainable external position.

The risks to Swaziland's economic situation are also expected to have implications for other CMA members. Although direct impacts are minor, spillover effects are not. An unsustainable external position in Swaziland could have strong spillover effects to other CMA members (Lesotho, Namibia, and South Africa).

Table 2. Cross-Country Risk Assessment Matrix

Sources	Risks		
	Downside (↓) or Upside (↑)	Likelihood ¹	Impact if Realized ¹
Growth slowdown in the US ²	↓	Low	High Lower exports to the US, spillovers from lower activity in South Africa. Possibly lower SACU transfers over the medium term.
Growth slowdown in the euro area ²	↓	Medium	High Lower exports to the euro area, spillovers from lower activity in South Africa. Possibly lower SACU transfers over the medium term.
Growth slowdown in emerging economies ³	↓	Low	High Lower exports to the emerging markets, spillovers from lower activity in South Africa. Possibly lower SACU transfers over the medium term.
Hike in oil prices ⁴	↓	Low	Medium Risk of a growth slowdown
Financial deleveraging by South African banks	↓	Low	High South African banks could reduce their exposure to Swaziland further. Risk of a credit crunch and growth slowdown.
Portfolio outflows ⁵	↓	Medium	High With large portfolio outflows, external sustainability could rapidly be jeopardized, because deposits would most likely be transferred to South Africa.
Unaddressed fiscal imbalances ⁶	↓	High ⁷	High Without a credible fiscal adjustment plan, Swaziland's fiscal and external positions are unsustainable over the medium term. With a fiscal adjustment plan, Swaziland could restore both fiscal and external sustainability.

¹ Classified as high, medium, or low.

² Advanced countries face two main risks: a potential deepening of the crisis in the euro area, and a fiscal cliff in the United States.

³ Emerging economies continue to face risks of overheating, as well as perceptions of higher uncertainty.

⁴ Market conditions could be affected by perceived geopolitical risks, but prospects remain otherwise favorable.

⁵ The financial sector stability is vulnerable to portfolio outflows, as commercial banks' deposit base has been eroded by preferences for investments with asset management companies.

⁶ Swaziland's fiscal and external positions are vulnerable because of (i) a high dependence on SACU transfers; (ii) uncontrolled public spending; and (iii) an unfavorable business climate.

⁷ The risk could materialize as early as 2012/13. Pressures have already emerged for higher spending, with demands for wage increases and renewed efforts in areas with no impact on poverty alleviation (construction of a new airport).

B. Modeling Potential Spillovers of External Shocks to the Swaziland Economy

This section focuses on analyzing the two main potential spillover risks that could be faced by Swaziland (a growth slowdown in the global economy and deleveraging in South Africa), to understand (i) the potential magnitude of these shocks and (ii) their transmission mechanisms. These are critical to understanding how Swaziland could strengthen its resilience to external shocks. This quantitative analysis is done using the Global Integrated Monetary and Fiscal (GIMF) model (see Kumhof and others, 2010, for a general presentation).

GIMF is suitable to analyze spillover effects because it is a multi-country model, with a dynamic stochastic general equilibrium structure. The structure used here is a three-country model, with Swaziland, South Africa, and the rest of the world. The three components of the model are linked through bilateral trade and relative prices, including interest rates and exchange rates, which are explicitly modeled. Apart from general features of the model (Box 2), the following features have strong implications on simulation results.

- The share of households without access to credit is estimated at 70 percent in Swaziland and South Africa (Canales-Kriljenko, 2011), and 50 percent in the rest of the world.
- Trade data² indicate several stylized facts. Swaziland's trade is largely dependent on South Africa, which provides almost all of Swaziland imports and absorbs about two-thirds of its exports. Overall, Swaziland is a net importer of South African goods. However, the weight of Swaziland in South African trade is limited, with the rest of the world making up about 98 percent of South African imports and exports.
- South Africa is a major source of financing for Swaziland, through investment (direct and portfolio), remittances, and domestic financing, as three out of four Swaziland banks are South African.
- Finally, the calibration of the model is based, for South Africa, on a previous study done by Canales-Kriljenko (2011), and the rest of the world from Kumhof and others (2010), while other parameters on Swaziland are derived from Basdevant and others (2011).

Fiscal policy responses are based on maintaining a structural surplus consistent with stable ratios of government debt to GDP over the medium term. This assumption is important, because some results are partly mitigated

² Taken from IMF Direction of Trade (<http://www2.imfstatistics.org/DOT/>) and *World Economic Outlook*. Data are calibrated for 2007, i.e., before the global financial crisis, because these data are expected to be closer to their equilibrium value.

by countercyclical policies. Other elements could prevent such policies, notably in Swaziland where fiscal space is limited. This assumption is discussed further when analyzing simulation results.

Impact of a Fiscal Contraction in the Global Economy

The first simulation exercise consists of a fiscal adjustment in the global economy of 1 percent of GDP for two years, which is consistent with the fiscal risks in advanced economies. As shown in Figure 2, the spillover risks for Swaziland are quite significant. A one-half percent GDP decline in the global economy could translate into a slowdown of at least one-eighth of GDP in Swaziland. The main transmission channels are (i) the contraction of demand for Swaziland's goods, which affects part of its exports, and (ii) the indirect impact on South Africa, not only through a demand effect (by lowering South Africa's growth, the demand for Swaziland's goods would be affected), but also through the policy response impact.

Two caveats must be emphasized though:

- First, the impact of the fiscal contraction in the global economy is projected to be relatively limited, largely owing to an accommodative monetary policy. Multipliers may actually be stronger than expected before the crisis (IMF, 2012d). For example, with multipliers closer to 1, the pass-through of a fiscal contraction by 1 percent of GDP in an advanced economy could well translate into a similar decline of 1 percent in GDP for global economic growth.
- Second, accommodative policies in South Africa and Swaziland would help reduce the impact of the growth slowdown in the global economy. While Swaziland would automatically benefit from an accommodative monetary policy in South Africa, owing to the parity with the rand, the capacity of these countries to implement a countercyclical fiscal policy would remain subject to the available fiscal space. While South Africa still has significant fiscal space, if market pressures were the main trigger for the fiscal adjustment in advanced economies, these pressures could also spillover to South Africa. Swaziland's fiscal policy is more constrained, as the fiscal space is at present inexistent. However, with a fiscal adjustment in place and renewed access to external financing, Swaziland could still let automatic stabilizers play out in the event of an external shock.

Additional Risks: SACU Transfers Volatility in the Global Slowdown

Finally, in both of these experiments, SACU transfers are not explicitly modeled. There is, however, a significant fiscal risk pertaining to any adverse global shock. As discussed in Mongardini and others (2012), small shocks on South African GDP have very significant impact on SACU transfers received by smaller

members of the union, such as Swaziland. South Africa generates about 90 percent of the revenue of the SACU pool,³ and the existing rules make BLNS⁴ receipts heavily dependent on South Africa GDP projections. Thus, as described in Cuevas and others (2011), revenue received in a given year t is based on GDP projections for that year; and an adjustment is made in year $t+2$, to correct for discrepancies between the transfers received (i.e., based on the projections) and the level corresponding to the actual collection (i.e., based on actual numbers). Empirically, this two-year lag has led to severe procyclical transfers because downward adjustments have usually been concomitant with lower activity in the cycle. This procyclicality has proven, in the context of the 2008 crisis, very damaging because the sharp contraction of SACU transfers contributed to risk of debt distress. In the event of an adverse shock to the global economy and/or South Africa, an additional fiscal adjustment could then be needed, in particular when a shortfall of SACU transfers is too large to be absorbed otherwise. The fiscal implications are discussed further in Basdevant and others (2011).

Box 2. Outline of the Main Components of the GIMF Model¹

Real Sector

There are two types of households: those with access to financial markets, represented by overlapping generations (OLG), who have a life-cycle behavior over a finite horizon; and those who are liquidity constrained and consume their income out-of-pocket. Both types of households supply labor, with wages set by unions, and pay direct taxes on income, indirect taxes on consumption spending, and a lump-sum tax. All households can benefit from government transfers. Firms are owned by households, use capital and labor to produce two types of goods (tradable and non-tradable). They also have a finite planning horizon that gives rise to a substantial equity premium. Firms pay capital income taxes to the government and wages and dividends to households. Monopolistic competition allows for a markup over marginal costs. Firms use public investment as input, in combination with tradable and non-tradable intermediate goods.

Financial Sector

The financial sector contains a limited set of financial assets. OLG households can acquire domestic government bonds, international bonds, and fixed term deposits. Debt is denominated in domestic currency and financial assets, as well as ownership of firms. It is not tradable across borders. The corporate balance sheet channel (endogenous borrowing premium) and the bank balance sheet channel (endogenous

¹ See Kumhof and others (2010) for a general presentation of GIMF.

³ The revenue pool largely consists of revenue from customs duties and, to a lesser degree, excise taxes. The pool is managed by South Africa.

⁴ Botswana, Lesotho, Namibia, and Swaziland.

Box 2. (Concluded)

lending spread) provide the basis for macrolinkages (Bernanke, Gertler and Gilchrist, 1999).

Monetary Policy

Because the lilangeni is pegged to the South African rand, the monetary rule follows the maintenance of the peg. Monetary policy in South Africa and the rest of the world follows an inflation targeting regime, approximated by a Taylor rule.

Fiscal Policy

Fiscal policy is based on several instruments (government consumption and investment, lump sum transfers, taxes on labor, corporate profits and consumption, and tariffs). Non-Ricardian features allow for a sizable impact of spending- and revenue-based fiscal measures. Thus, a fiscal impulse typically leads to stimulating economic activity in the short run and crowding-out private investment and net foreign assets in the long run. The larger the proportion of liquidity-constrained households, the larger the fiscal multiplier from temporary changes to taxes and transfers.

Implications of Financial Deleveraging in South Africa

Financial deleveraging in South Africa could be triggered by the need for commercial banks to replace their domestic wholesale funding with more expensive funding. To model this deleveraging we simulate a shock increasing the risk premium for financing firms. The results present a persistent shock to the risk premium, peaking at 1 percentage point higher than in the steady state (Figure 2. Impact of Deleveraging in South Africa).

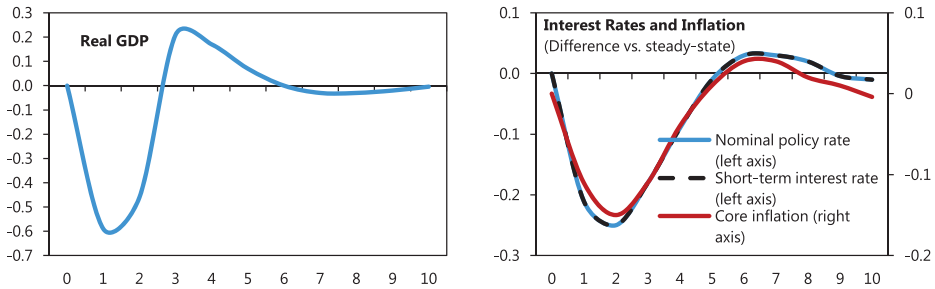
Deleveraging in South Africa would have significant implications for Swaziland, because of the strong presence of South African banks in its banking sector. The transmission channel would be twofold, with a direct contagion impact of the deleveraging process and another indirect impact of lower financing on demand for Swaziland's exports.

Similar to the previous simulation, fiscal policy and monetary policy are assumed accommodative in both countries. The assumed fiscal space for Swaziland remains subjected to the limited fiscal space.

Figure 1. Impact of a Fiscal Contraction in the Rest of the World¹

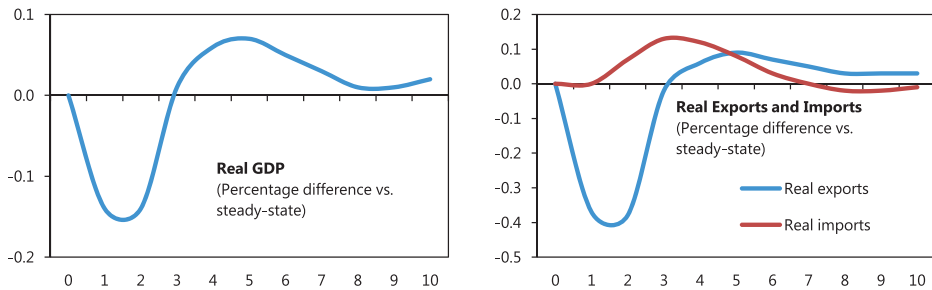
I. Rest of the World

A fiscal contraction of 2 percent of GDP for 2 years could result in GDP losses of only ½ percent in the rest of the world, provided that monetary policy remains accommodative.

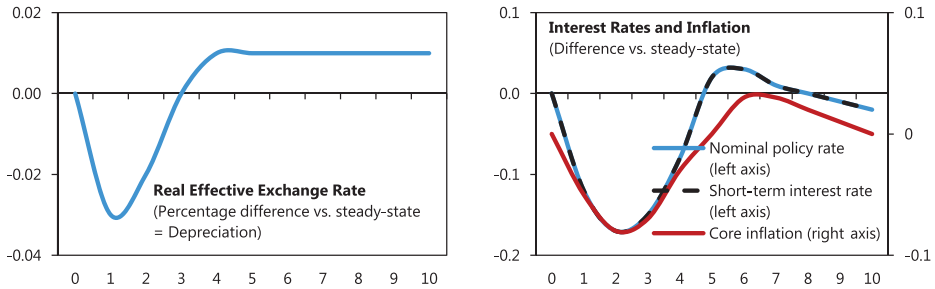


II. South Africa

The impact on South Africa would be negative by about one-eighth percent of GDP, owing to a lower demand for South African goods...

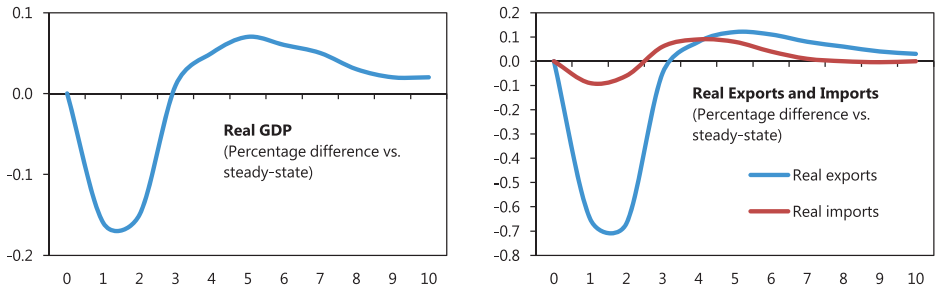


... which would still be partly compensated by a real depreciation of the exchange rate, as well as an accommodative monetary policy.



III. Swaziland

The recession in Swaziland would be slightly more pronounced, owing to lower demand coming from both South African and the rest of the world.



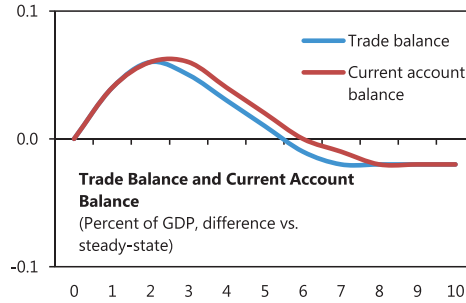
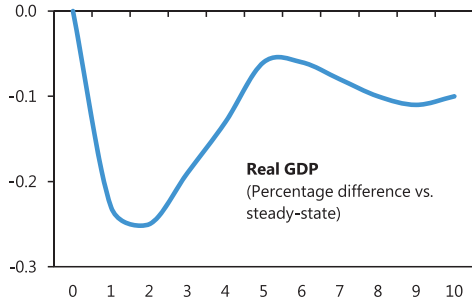
Source: IMF staff estimates.

¹ Responses are shown on an annual basis, with the shock happening in t=1.

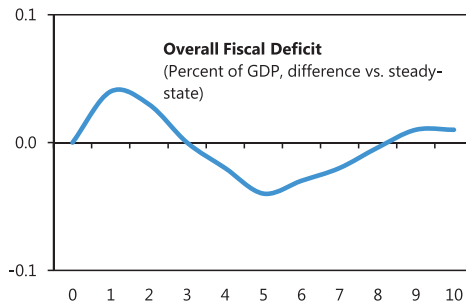
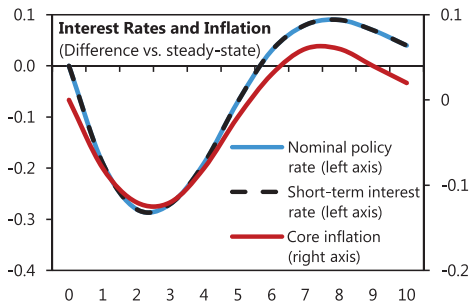
Figure 2. Impact of Deleveraging in South Africa¹

I. South Africa

Deleveraging in South Africa could lead to a ¼ percent of GDP contraction, for an increase in 1 percentage point of the risk premium of enterprises...

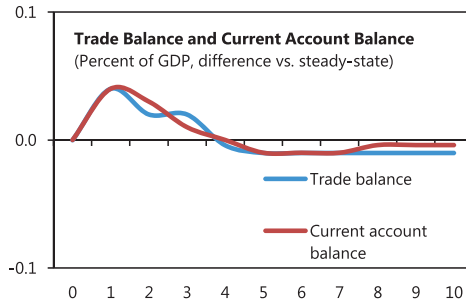
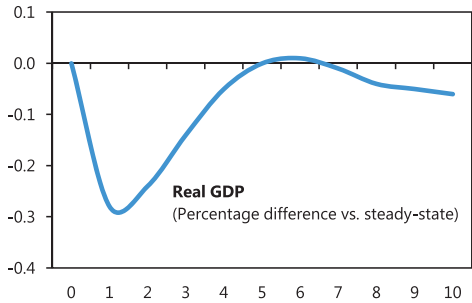


... provided that policies remain accommodative.

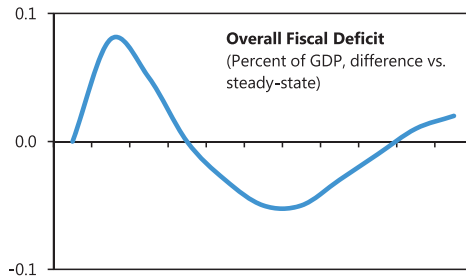
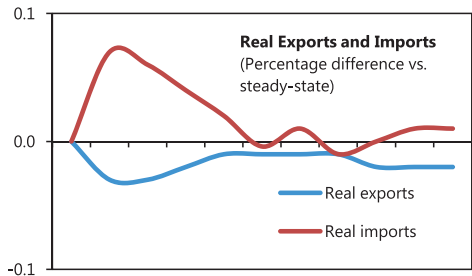


II. Swaziland

The impact on Swaziland would be stronger, because the country would be expected to be affected directly by deleveraging and indirectly by a lower demand from South Africa.



Exports would therefore not be expected to pick up, and demand would remain subdued even if fiscal policy was accommodative.



Source: IMF staff estimates.

¹ Responses are shown on an annual basis, with the shock happening in t=1.



Swaziland's External Vulnerabilities: The Fiscal Origin

A. Swaziland's Fiscal Position Remains Vulnerable and Inadequate to Reduce Poverty

The fiscal position has improved owing to the windfall transfer from SACU for fiscal year 2012/13 (Table 3)⁵ but fiscal imbalances are still present as expenditures remain high. Fiscal imbalances originate mostly from uncontrolled spending. The public wage bill, at about 15 percent of GDP, is one of the highest in sub-Saharan Africa (see Basdevant, Baba, and Mircheva, 2011, and Figure 3). While the deficit was partly reduced in 2011/12 to 6.0 percent of GDP, it was above the estimated sustainable levels at about 2 percent of GDP maximum. At the same time, progress has been made to strengthen public financial management (PFM). The new PFM bill has been drafted with technical assistance from the IMF and is expected to be submitted shortly to parliament. Once enacted, the new bill would increase the transparency of the budgetary process and ensure that all expenditures are channeled through the appropriate budgetary procedures.

The current composition of spending could be reoriented towards social priorities or poverty issues. The United Nations (2012) assessed a worsening of the situation of the poor as a result of the fiscal crisis, with lower access to key health care and education services, and higher school dropout rates. Indeed, social spending was much lower than budgeted by about E 1/2 billion in 2011/12. The affected transfers covered (i) transfers to the ministries of education and health, (ii) transfers to orphans and vulnerable children (OVC), (iii) scholarships, and (iv) transfers to hospitals and schools. In addition, several investment projects with poverty-alleviating components (e.g., school extensions) were stopped, while other investment projects (e.g., the Sikhuphe airport) were given priority.

⁵ The fiscal year runs from April 1st to March 30th of the following calendar year.

Table 3. Swaziland: Central Government Finances, 2010/11–2012/13

	2010/11	2010/11		2012/13	
	Actual	Budgeted ¹	Actual	Budgeted ²	Projected
	(percent of GDP, unless otherwise indicated)				
Revenue and grants	25.2	28.9	24.5	36.0	37.6
Primary expenditure	38.0	33.6	29.2	33.9	36.1
Wage bill	16.2	14.4	14.9	14.2	14.8
Goods and services	6.6	5.0	5.0	5.7	6.0
Transfers	6.9	8.0	6.5	8.1	8.4
Capital spending	8.4	6.3	2.8	5.9	6.9
Primary balance	-12.8	-4.7	-4.7	2.1	1.5
Interest payment	0.6	1.1	1.3	1.3	1.0
Arrears (flow)	2.7	-0.2	2.8	-4.8	2.1
Primary net lending / borrowing	-10.1	-4.9	-1.9	-2.7	3.6
Overall balance	-13.4	-5.8	-6.0	0.8	0.5
Net lending / borrowing	-10.7	-6.0	-3.2	-4.1	2.6
Financing	10.7	6.0	3.2	4.1	-2.2
Net accumulation of financial assets	5.2	1.7	1.7	-1.0	-1.1
<i>of which:</i> government deposits	5.0	1.6	1.6	-1.2	-1.3
Net accumulation of financial liabilities	5.5	4.2	1.4	5.1	-1.1
Net domestic financing	6.0	7.3	1.9	-0.9	-0.9
<i>of which:</i> budget support	0.0	5.5	0.0	6.2	0.0
Net foreign financing	-1.3	-3.1	-3.1	6.0	-0.2
Memorandum items					
Arrears (stock)	2.7	2.4	5.4	0.0	7.1
Nominal GDP (Emalengeni billions)	27.5	29.3	29.3	32.6	31.3

Source: Swaziland authorities and IMF staff estimates and projections.

¹ Data on expenditure and revenue are based on the revised 2011/12 budget. Financing data are based on actual number, and include the budget support that underpinned the approved budget (E 1.6 billion, 6½ percent of GDP).

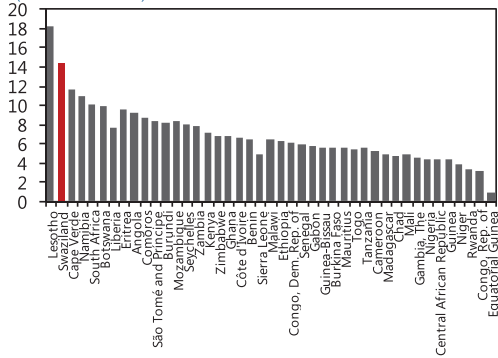
² Data on expenditure is based on the 2012/13 UFAR, adjusted for lower capital spending due to expected slower disbursements from donors. Financing is based on IMF staff projections, notably with respect to domestic financing, which is unlikely to be high in the absence of upfront fiscal measures.

The authorities have acknowledged most of these fiscal risks in their updated fiscal adjustment roadmap (UFAR). The UFAR provides accurate diagnostics of the issues and successes experienced since the approval of the original Fiscal Adjustment Roadmap in 2010. Specifically, the SRA has been successfully created and is moving towards modern-based revenue administration systems; and key tax policy measures have been taken, notably the introduction of the value added tax in April 2012. The UFAR also underscores persistent vulnerabilities related to a lack of expenditure controls,

Figure 3. Origin and Implications of Swaziland's Fiscal Risks

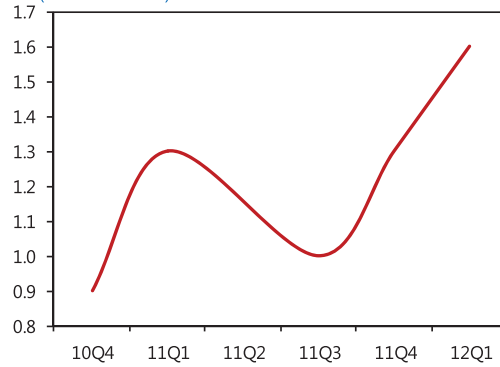
Swaziland's wage bill is one of the highest in Sub-Saharan Africa.

Wage Bill, Average 2006-2011
(Percent of GDP)



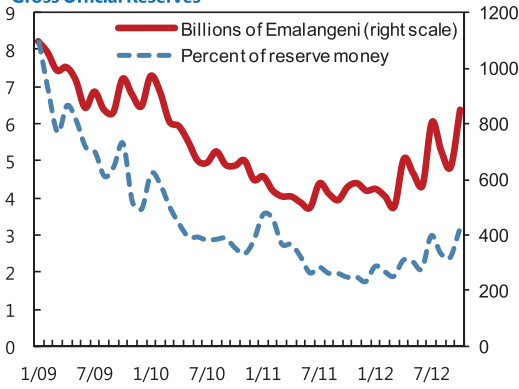
Fiscal imbalances led to an accumulation of arrears...

Stock of Arrears
(Percent of GDP)



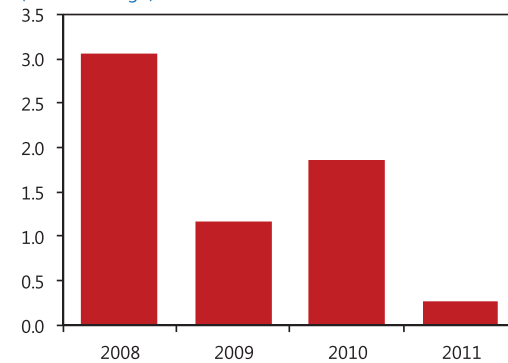
... and a depletion of the reserves of the central bank.

Gross Official Reserves



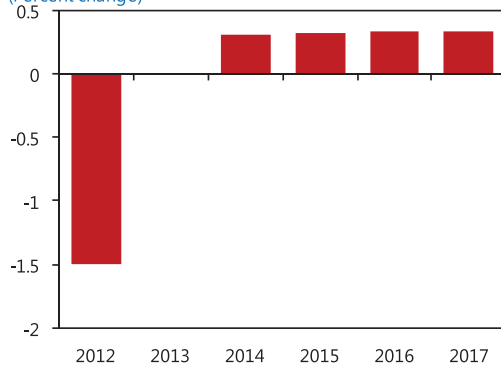
GDP growth is slowing down as the private sector gets crowded out.

Real GDP Growth
(Percent change)



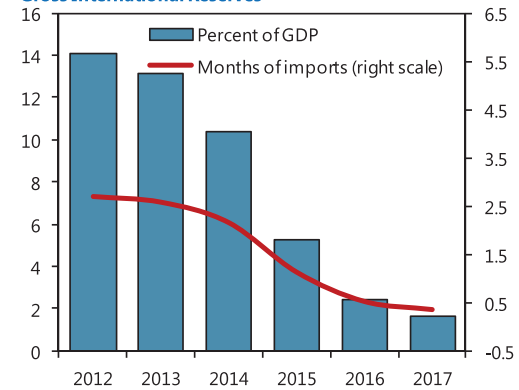
Without a fiscal adjustment, growth prospects are unfavorable...

Real GDP Growth
(Percent change)



... and reserves could be fully depleted over the medium term.

Gross International Reserves



Source: Swaziland authorities, and IMF estimates.

partly because of weaknesses in the PFM system and partly because of a lack of political and social consensus on reforms to be implemented.

While providing a broadly accurate diagnostic, the UFAR could be amended with additional and upfront expenditure cuts that could provide the basis to restore fiscal and external sustainability. On the expenditure side, measures of about E 1.4 billion over the medium-term would need to be implemented, with an emphasis on cutting the wage bill and other non-priority recurrent expenditures. Additionally, EVERS could be extended to all public sector employees, including security forces. Finally, the control of government expenditure should be brought under the sole responsibility of the Ministry of Finance. Table 4 below summarizes the assessment of the UFAR, based on adjusted assumptions on GDP and SACU transfers. It underscores how vulnerable it is: debt is unsustainable, and by 2015/16 would breach the threshold of 40 percent of GDP (see also section III.D for a detailed analysis). Vulnerable middle income countries like Swaziland are at risk of debt distress beyond this level.

In addition, targets could be set in the UFAR on poverty-alleviating spending, notably health and education, with the view of increasing their share in total spending throughout the medium term. The budget would also need to ensure an adequate allocation to grants for Orphaned and Vulnerable Children and the elderly. Investment project should be prioritized according to their expected impact on growth and poverty reduction. Last but not least, the UFAR also does not provide an adequate framework to strengthen expenditure controls. For example, the adjustment for 2012/13 is projected to be moderate, as most measures are planned for the next fiscal year. In parallel, spending pressures are mounting, in the context of higher SACU transfers. Without greater control by the Ministry of Finance on commitments and budget execution, slippages remain very likely, as they did in the past.

B. Current Account Imbalance and Competitiveness: The Fiscal Connection

Fiscal imbalances directly affect the external current account. Swaziland faces a “twin deficit,” where the overall fiscal balance and the current account balance are largely synchronized (Figure 4). This synchronization comes predominantly from the dependence on SACU transfers. For example, although SACU transfers for 2012/13 and 2013/14 are high (about 22.5 percent of GDP), they are projected to decline over the medium term.⁶ A fiscal adjustment would therefore be appropriate to reduce domestic

⁶ Numerous factors play in favor of such an expectation: the 2012 numbers are based on overly optimistic projections and are likely to lead to repayments in 2013; the global economy is not projected to exhibit strong growth in the years to come; and the revenue sharing formula, currently under discussion, could lead to a further decline over the medium term (see Basdevant and others, 2011, for a deeper analysis).

Table 4. Overall Assessment of the Updated Fiscal Adjustment Roadmap (UFAR), 2011/12–2015/16

	2011/12	2012/13	2013/14	2014/15	2015/16
	(percent of GDP, unless otherwise indicated) ¹				
Net lending / borrowing ¹	–3.2	–4.5	–1.0	–10.6	–10.9
Interest payment	1.3	1.0	1.0	1.0	1.5
Primary net lending / borrowing ¹	–1.9	–3.5	0.0	–9.7	–9.3
Revenue and grants ²	24.5	37.6	36.8	27.2	28.3
<i>Of which:</i> SACU transfers ²	9.8	22.6	21.2	11.3	12.1
Primary expenditure (commitment basis)	29.2	36.1	36.8	36.9	37.6
<i>Of which:</i> wage bill	14.9	14.8	13.6	13.1	12.9
Arrears	2.8	–5.0	0.0	0.0	0.0
Public debt	18.3	24.5	24.8	34.6	44.0
Overall impact of measures (+ = improvement)	...	–1.6	2.8	5.4	5.6
Revenue (+ = increase)	...	0.2	0.6	1.5	0.3
Implementation of VAT (including administration improvements)	...	0.2	0.4	0.1	0.1
Improvements in revenue administration	...	0.0	0.2	0.2	0.2
Tax policy reform ³	...	0.0	0.0	1.2	0.0
Expenditure (– = cut) ⁴	...	1.8	–2.2	–4.0	–5.3
Wage bill	...	–0.2	–1.2	–0.4	–0.2
EVERS cost (temporary impact)	...	0.1	0.7	0.4	0.0
EVERS savings (permanent impact)	...	0.0	–0.8	–0.8	0.0
Wage increases	...	0.0	0.0	0.6	0.2
Other	...	–0.3	–1.0	0.0	0.0
Other recurrent spending	...	–0.8	0.2	–0.1	–0.8
Domestically financed capital spending ⁴	...	2.8	–1.2	–3.4	–4.3
Memorandum items					
Primary balance (commitment basis)	–6.0	0.5	–1.0	–10.6	–10.9
Nominal GDP (Emalengeni billions)	29.3	31.3	33.5	35.6	37.5

Source: Swaziland authorities, and IMF staff estimates and projections.

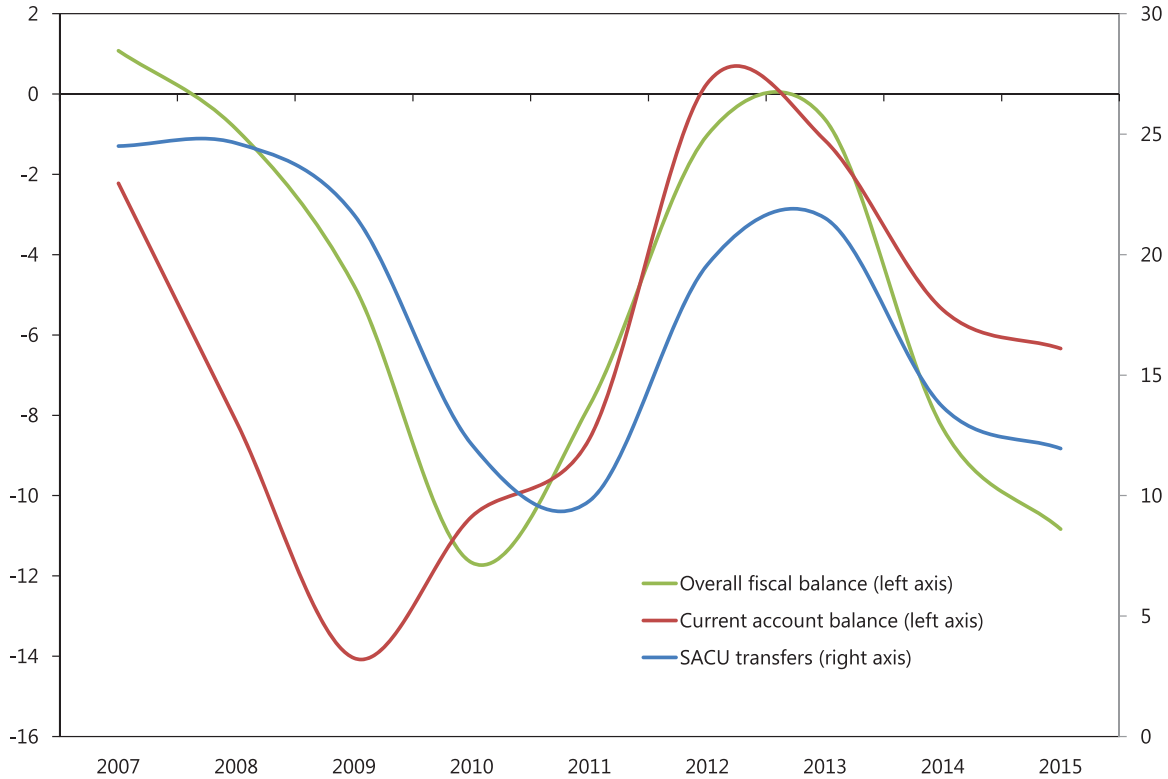
¹ Net lending corresponds to the fiscal balance on a cash basis.

² Projections of GDP and fiscal revenue (including SACU transfers) are based on more prudent projections than those of the FAR.

³ Tax policy changes are not included in revenue projections, largely because measures have to be defined and quantified first.

⁴ The increase in spending in 2012/13 is largely related to spending going back to their normal value after the increase in SACU transfers.

Figure 4. Swaziland's Twin Deficits (Percent of GDP)



Source: Swaziland authorities; and IMF staff estimates and projections.

demand and thus the current account deficit (see Basdevant and others, (2011), on options to reduce the current account deficit through a fiscal adjustment).

Fiscal imbalances also affect the current account deficit through their negative impact on growth and competitiveness. Several channels are involved: (i) the size of the public sector, together with relatively high public sector wages, crowds out private sector investment and reduces external competitiveness; (ii) the accumulation of arrears led to an additional contraction of private sector activity; and (iii) perceived risks of a fiscal crisis have led banks to reduce their exposure to Swaziland in general, and not just vis-à-vis the public sector.

Reflecting fiscal imbalances, Swaziland's real effective exchange rate (REER) would have to depreciate by between 28 and 38 percent,⁷ all other factors remaining constant, in order to maintain a sustainable current account deficit

⁷ Depending on the CGER approach used.

over the medium term.⁸ The estimation for the exchange rate assessment is done using 2011 as the base year.⁹ The three standard approaches used in the CGER methodology to assess Swaziland's exchange rate are (i) the macroeconomic balance approach, (ii) the equilibrium REER approach, and (iii) the external sustainability approach. All of the estimates indicate a continued significant overvaluation, compared with the assessment of 19–33 percent in the 2011 Article IV consultation (IMF, 2012e), reflecting the lasting impact of the fiscal crisis in Swaziland and worsening world economic outlook (Figures 4 and 5).¹⁰

- The *macroeconomic balance approach* suggests that at end-2011 the REER would need to adjust by 29.7 percent in order to bring the projected current account balance (−8.6 percent of GDP) to the estimated current account norm (−0.9 percent of GDP).¹¹ Considering that the elasticity of the current account balance with respect to the real exchange rate is estimated at −0.26, the real exchange rate would have to depreciate by about 30 percent to close the external current account gap.¹²
- The *equilibrium real effective exchange rate approach* suggests that at end-2011 the REER would need to adjust by 28 percent. This approach estimates the equilibrium REER based on fundamentals such as the terms of trade, relative productivity, and relative government consumption over medium-run equilibrium. The relative government consumption has an elasticity of about one. Fiscal adjustment would therefore have a direct impact in addressing the overvaluation.
- The *external sustainability approach* indicates that the real effective exchange rate needs to adjust by 36–38.2 percent in order to bring the current account balance in line with a level stabilizing net foreign assets (NFA) of the central bank over the medium term. The assessment is made to maintain the NFA position at its current level (14 percent of GDP at end-2011) and its 2006–11 average level (25.5 percent of GDP). To achieve this targeted level of NFA the current account balance should be 0.7 percent or 1.3 percent of GDP, respectively. Accordingly, the REER would need to depreciate by between 36 and 38.2 percent in the medium term in order to close the gap.

⁸ The REER assessment was carried out using IMF CGER methodology (Lee and others, 2008; Vitek, 2012).

⁹ 2012 estimates are not yet available and would in any case distort the analysis owing to the one-off effect of the windfall SACU revenue.

¹⁰ IMF country report No. 12/37 <http://www.imf.org/external/pubs/ft/scr/2012/cr1237.pdf>

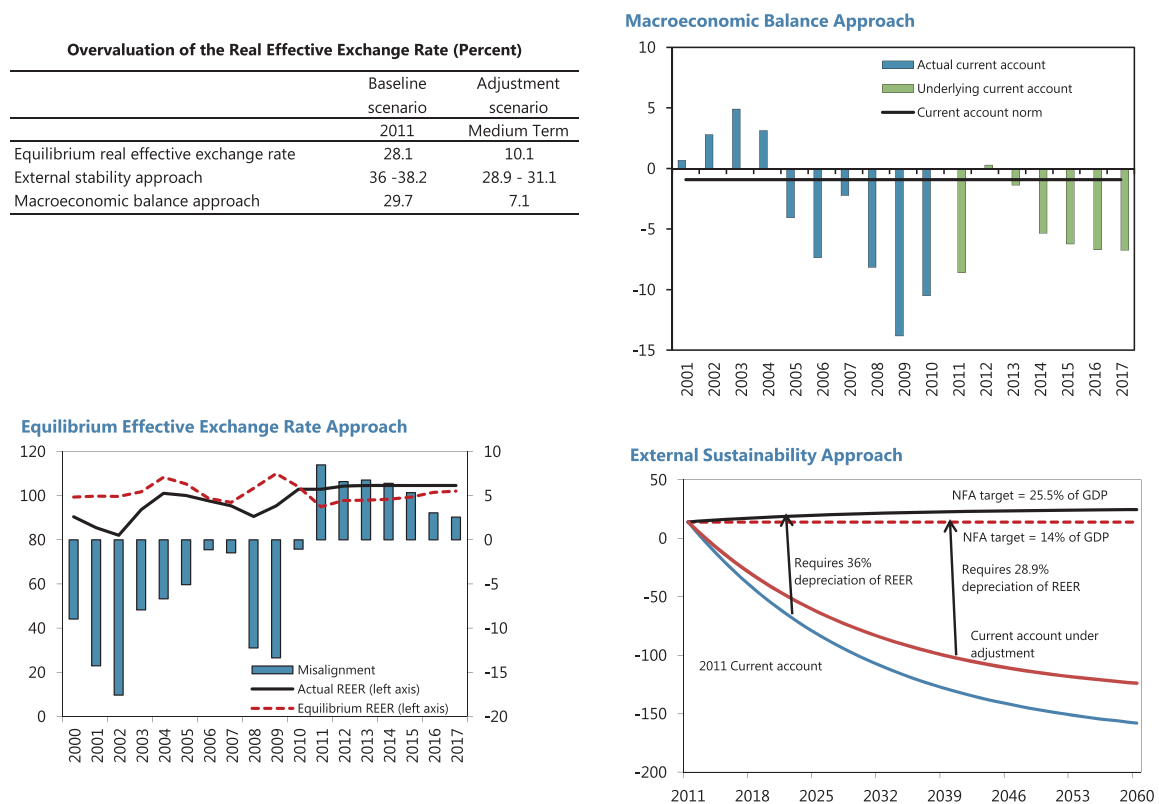
¹¹ The estimation employs a panel data set covering 184 economies from 1973 through 2010 (Vitek, 2012; Aydin, 2010) and considers the following macroeconomic variables: fiscal balance, old-age dependency, population growth, per capita income, growth, oil balance, and initial NFA.

¹² The elasticity is calculated using Swaziland's export and import shares in GDP and export and import volume elasticities derived in Isard and Faruqee (1998).

With this overvaluation, without appropriate policies and a stable macroeconomic framework, the exchange rate regime can be vulnerable to additional internal and external pressures. A nominal exchange rate adjustment would entail risks that would largely outweigh the benefits and the potential gains from a possible nominal exchange rate adjustment are expected to be limited. In addition, maintaining the peg to the rand would continue to contribute to macroeconomic stability and external sector development, as it did in the past. As illustrated by Asonuma, Debrun, and Masson (2012), Swaziland gains from the CMA membership an estimated 2 percent of GDP. Therefore, adjustment of the exchange rate would be best addressed at its source, that is, by implementing a fiscal adjustment.

If the recommended fiscal adjustment is implemented, the overvaluation would be reduced where the remaining necessary depreciation would be best addressed at the CMA level. With the proposed fiscal adjustment, the current account deficit would be reduced to a level that would leave, according to the macroeconomic balance approach, an overvaluation of 7.1 percent. Similarly, the equilibrium real effective exchange rate would remain overvalued by 10.1 percent, while the external sustainability approach suggests an overvaluation

Figure 5. Swaziland's Real Exchange Rate Assessment



of 28.8–31.1 percent. The remaining overvaluation would then be best addressed in a regional context, that is, with a close cooperation between all CMA members. Implementing the appropriate set of policies would then allow for continual support of the current exchange rate regime.

Adjustment of the exchange rate would be best addressed at its source, i.e. by implementing a fiscal adjustment as a nominal exchange rate adjustment would entail risks that would largely outweigh the benefits. The potential gains from a possible nominal exchange rate adjustment are expected to be limited. Swaziland's main export goods, such as sugar cane, are sold at given international prices. Thus, a nominal exchange rate adjustment would create limited volume gains on the export side, while higher import prices could be significant. Beyond these price effects, domestic supply may not be in a position to benefit fully from a nominal exchange rate adjustment and price-competitiveness improvements, because of, at least, three main bottlenecks. First, the economy remains largely dominated by the public sector; and without restoring fiscal sustainability in Swaziland, the business community is not expected to increase investments. Second, the business climate remains weak, largely because of low access to financial services and a low quality of institutions (legal and judicial framework, access to utilities, trade facilitation).¹³ For example, imports of services from South Africa are severely constrained by work permit requirements, including for stays of just a few days. Third, Swaziland's human capital faces considerable pressures, with the highest rate of HIV/AIDS prevalence in the world and access to education and health services that has been reduced during the current crisis. Finally, the net balance sheet position of the private sector vis-à-vis the rest of the world could worsen (Chapter III, Section C) as many enterprises have currency mismatches in their balance sheets. Even if a nominal exchange rate adjustment were to improve competitiveness, the risks of insolvency because of balance sheet imbalances could offset the gains.

The peg to the rand has served Swaziland well and is expected to continue to be the main anchor for macroeconomic stability. As illustrated by Asonuma, Debrun, and Masson (2012), Swaziland gains from the CMA membership with an estimated gain of 2 percent of GDP. This gain has been triggered largely by facilitating trade and financial flows with other CMA members, and also by the anchor and stability of the peg to a currency of a strong emerging economy. While the peg has also entailed costs in terms of foregone monetary policy response to specific shocks, the increased integration and stabilization largely outweigh the cost.

¹³ The Global Competitiveness Indicators report (<http://www.weforum.org/issues/global-competitiveness/index.html>) ranks Swaziland in 134th place out of 142 evaluated countries, and the World Bank Doing Business Indicator ranks it at 124th out of 183 countries (<http://www.doingbusiness.org/rankings>).

C. Fiscal Risks Affect External Financing and Reserve Position

A model-based approach (Box 3) indicates that Swaziland's level of gross official reserves is broadly adequate to protect the country against external shocks. This approach considers balance of payment pressures that can stem from different sources such as external liabilities or potential capital flight. By reflecting the relevant level of risk of the different possible sources of balance of payment pressures, the model estimates that the minimum level of reserves needed to cover the risk of potential balance of payments outflows in Swaziland is 17 percent of GDP (about E 5.1 billion for 2012; Table 5). At end-October 2012, gross official reserves stood above this threshold at E 6.4 billion, equal to 21 percent of GDP.

Based on traditional reserve adequacy metrics, Swaziland's level of gross official reserve is also broadly adequate. The standard measures commonly used to assess reserve adequacy are the gross official reserves as a ratio of months of imports, the ratio of the stock of short-term external debt by remaining maturity to gross official reserves, the ratio of gross official reserves to the stock of reserve money, and to the stock of broad money. The ratio of reserves to GDP is also used as a measure in some cases but does not have a theoretical or empirical underpinning. Of these metrics, the most widely used rule of thumb is that a country with a fixed exchange rate should maintain reserves equal to at least three prospective months of imports of goods and services. Swaziland's level of reserves was above this threshold as of end-October 2012 (Figure 6).

Fiscal imbalances have had a strong impact on the financial account of the balance of payments. Throughout the crisis, the government relied on central bank financing (about E 850 million, 1 percent of GDP), as well as placements of government bills and bonds. The government has so far not been able to mobilize any external budget financing, thus relying on its own deposits at the central bank and domestic arrears. With the lilangeni pegged to the South African rand, the depletion of government deposits at the central bank as well as portfolio outflows led to a parallel depletion of gross official reserves. Overall, the lack of progress on fiscal adjustment contributed to aggravating pressures on the financial account, as external budget support could not be secured (IMF, 2011a).

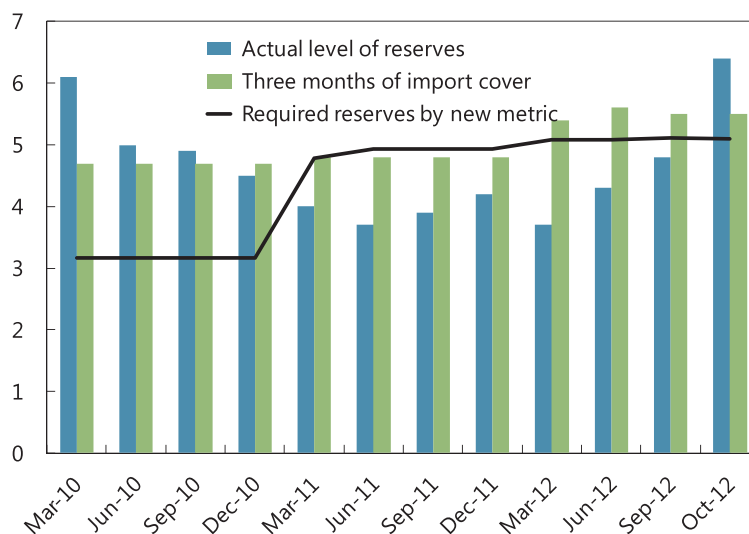
With the surge in SACU transfers in 2012/13, the level of reserves at the central bank has improved and since October 2012 has been broadly adequate. However, between quarterly SACU transfers, reserves are decreasing rapidly as the government meets its budgetary obligations. The factor underlying the weakness is structural, and would require addressing the vulnerability of the whole balance of payments through a significant fiscal adjustment. Therefore, the recommended level of reserves

Table 5. Optimal Level of Reserves

	2012	
	Billions of emalangeni	Percent of GDP
Traditional metrics		
Three months of imports	5.5	18
100% of STD	1.5	5
20% of M2	1.9	6
Model-based metric	5.1	17
Gross official reserves, end-Oct 2012	6.4	21

Source: IMF staff calculations.

Figure 6. Actual and Adequate Level of Reserves (Emalangeni billions)



of 17 percent of GDP should be viewed as a minimum. Swaziland is exposed to terms-of-trade shocks because it is an oil importer and a sugar exporter. In addition, it has a fully open capital account with South Africa, and is thus exposed to capital outflows, while Swaziland does not have access to international capital markets.

The central bank would be well advised to aim for a level of reserves beyond the recommended 17 percent of GDP. Specifically, the central bank needs a larger base of reserve coverage to address potential liquidity pressures faced by commercial banks while protecting the parity with the rand (Chapter III. A.). Should portfolio outflows occur, the current level of reserves may not be sufficient for the central bank to be in a position to provide liquidity to commercial banks.

Box 3. Standard and Modern Approaches for Estimating Reserve Adequacy

Standard measures are based on a simple ratio of gross official reserves. They do not have a theoretical or empirical underpinning. Four measures are typically identified:

- ✓ For a country with a fixed exchange rate, the level of reserves should be at least three months of prospective imports of goods and services.
- ✓ Another metric is to ensure full coverage of short-term debt service by remaining maturity, namely reserves should be sufficient to cover the payment of debt service outflows over the next 12 months in full.
- ✓ The ratio of gross official reserves to base or reserve money (typically M0) gives a measure of the backing of currency in circulation. This measure is most relevant in currency boards, where the law requires the central bank to maintain a high percentage of reserves (60–100 percent) to be freely available to be exchanged for domestic currency in circulation.
- ✓ The reserve coverage of broad money (typically M2) is another popular measure. The metric is intended to capture the risk of capital flight, and a ratio of 20 percent is commonly used as the minimum threshold for countries with a fixed exchange rate regime.

Model-based approaches derive the adequate level from a cost/benefit analysis.¹ The benefits of holding reserves (i.e., reducing the probability of a crisis and smoothing consumption) are assessed against the cost of holding reserves, in terms of foregone investment in the economy. The benefits are typically defined in two broad categories:

- ✓ Protecting the economy against a sudden stop in capital flows (Caballero and Panageas, 2004, Jeanne and Rancière, 2006).
- ✓ Reducing the probability of a crisis and its cost (Garcia and Soto, 2004).

A new model-based approach has also been developed by the IMF (2011b) to derive the optimal reserve holdings. Since 2002, emerging market and low-income countries have outpaced the traditional reserve adequacy metrics. Subsequently, during shocks, these reserves have provided a useful cushion against economic crises, including the current global economic crisis.

This new model-based approach provides a framework for optimal reserves. For emerging market (EM) economies, a two-stage methodology is employed.

¹ IMF, 2011b.

Box 3. (concluded)

- ✓ The first stage estimates different potential losses of foreign reserves. The potential outflows during periods of exchange market pressure are estimated, when the specific sources of loss identified are (i) potential loss of export earnings from a drop in external demand or a terms-of-trade shock; (ii) external liability shock to short-term debt and medium- and long-term debt and equity liabilities; and (iii) capital flight risk.
- ✓ In the second stage, the reserve coverage a country should hold is estimated based on the metric obtained from the first stage.

For countries with a fixed exchange rate regime, it proposes to use the following risk weights, based on tail event outflows during exchange market pressure periods: 10 percent of export income, 30 percent of short-term debt, 15 percent of other portfolio liabilities, and 10 percent of broad money, which in this case is a proxy for liquid domestic assets.

D. A Dynamic Perspective: Debt Sustainability Analysis (DSA)

Swaziland's International Investment Position (IIP) is characterized by (i) a weakening reserve position, reflecting the projected loss of reserves over the medium term; (ii) an overall balanced position between direct and portfolio investment assets and liabilities; and (iii) a sustainable external debt position, underscored by a relatively stable position on other investments (Table 6).¹⁴ Overall the net IIP is projected to decline quite significantly over the medium term. A dynamic analysis of debt sustainability reflects these vulnerabilities, where the unsustainable public debt weighs heavily on reserves but less so on external debt. After discussing the baseline and the main sustainability risks, stress tests to the debt sustainability analysis (DSA) are analyzed, along with the role of government assets to counter the projected debt dynamics. These stress tests reinforce the vulnerability assessed under the baseline scenario.

The baseline scenario is defined as a continuation of the authorities' current policies, with unadjusted fiscal spending and an associated large accumulation of domestic borrowing (or arrears) to finance the deficit (Table 7). Public debt would then exceed 40 percent of GDP by 2015 and exceed 60 percent of GDP by 2017 (Figure 7). A debt level of 40 percent of GDP is the approximate threshold above which emerging markets have experienced debt crises (Manasse, Roubini, and Schimmelpfennig, 2003). In parallel, external debt would remain sustainable (Table 8, and Figure 8). This is due only

¹⁴ Details on the definition of the IIP and guidelines for data compilation are available via the Internet: <http://www.imf.org/external/np/sta/iip/iip.htm>.

Table 6. International Investment Position, 2010–17 (Percent of GDP)

	(Percent of GDP)							
	2010	2011	2012	2013	2014	2015	2016	2017
Assets	67.9	70.5	65.8	66.5	64.5	58.7	57.2	58.8
Direct investment abroad	0.7	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Portfolio investment	36.9	42.7	41.8	43.5	43.9	44.7	45.6	46.5
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	13.6	12.1	8.9	8.6	9.1	7.7	8.2	9.7
Reserve assets	16.6	14.7	14.1	13.4	10.6	5.4	2.5	1.7
Liabilities	46.1	55.3	53.1	54.2	53.8	53.9	54.2	54.4
Direct investment in Swaziland	25.2	31.7	30.9	32.0	32.3	32.8	33.3	33.9
Portfolio investment	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	20.7	23.4	21.9	22.0	21.4	21.0	20.7	20.4
Net international investment position	21.8	15.2	12.7	12.3	10.8	4.8	3.0	4.4

Source: Swaziland authorities; and IMF staff estimates.

to the lack of access to external financing without a fiscal adjustment. In contrast, fiscal deficits could only be financed by either a further accumulation of domestic arrears or by issuing debt, which would then be subscribed domestically. This would imply not only an unsustainable debt position (including arrears) but would also lead to crowding out the private sector, which would then have to either finance the government or bear the cost of arrears accumulation. In both cases, growth prospects would remain weak (Table 7). Overall, the DSA emphasizes the need for implementing front-loaded fiscal adjustment. Reducing the wage bill, and adjusting real wages downward, is essential to improving competitiveness and reducing Swaziland’s exposure to external risk. An objective of keeping debt below the threshold of 40 percent of GDP over the medium term remains appropriate.

Stress tests on the DSA indicate that public debt is primarily vulnerable to shocks to the primary balance (Figure 6). Weakness in expenditure controls, as demonstrated by variability in the primary balance in the past and the current pattern of unadjusted expenditures, also constitutes a risk to public debt sustainability in the future. This weakness, combined with the threat of reduced SACU receipts over the medium term, poses considerable risks of debt distress. In contrast, public debt is fairly resilient to shocks on interest rates, growth, and contingent liabilities. Swaziland’s public debt is contracted under fixed interest rates which remain fairly low, with a spread of about 200 basis points compared with South African rates, explaining the resilience to

interest rate shocks. Growth has been relatively stable, and shocks to growth have been historically small. While interest rates remain low, spreads against South African rates are rising, increasing exposure to interest rate risk.

Stress tests for external debt indicate a significant risk in terms of a shock to the current account balance. A shock of $\frac{1}{4}$ standard deviation of the current account balance would put external debt on a sharply increasing trajectory, and it would reach about 30 percent of GDP by 2017. Such a current account shock could arise as a consequence of the primary balance scenario examined in the public DSA and a large decline in SACU transfers. The associated loss in competitiveness and Swaziland's weak export base would accelerate the deterioration in the current account balance, thereby compounding the vulnerability shown in the public DSA. Because fiscal policy is essential to maintaining a sustainable current account deficit, this dynamic emphasizes the importance of fiscal discipline to maintain external debt sustainability.

Government assets are not sufficient to counter the projected rapid increase in public debt. Government assets are not liquid, implying a significant maturity mismatch. The government has limited liquid financial assets, mostly deposits at the central bank (E 3.4 billion as of end-October 2012). These assets cannot be fully used for deficit financing, as they are also the counterpart of the gross official reserves of the central bank. In contrast, the government holds significant illiquid assets, from part or full ownership of companies in competitive sectors (banks, mobile telecommunication, sugar production, insurance). These illiquid assets cannot be sold in the short run to alleviate financing pressures on the budget. Fiscal adjustment remains therefore critical for maintaining debt sustainability.

Box 4. An Overview of Swaziland Debt

Swaziland's fiscal stability depends on high Southern African Customs Union receipts to sustain a high spending-to-GDP ratio. The large fiscal deficits accumulated during fiscal year 2010/11 ($13\frac{3}{4}$ percent of GDP) and 2011/12 ($10\frac{1}{2}$ percent of GDP) were triggered by the loss in SACU transfers. They revealed large fiscal imbalances, with recurrent spending, notably on the wage bill, being the main source of fiscal risks. Total public debt, including advances from the central bank, rose from $12\frac{1}{2}$ percent of GDP in 2009/10 to $17\frac{1}{2}$ percent of GDP at end-2011/12 (excluding arrears) and $23\frac{3}{4}$ percent of GDP (including domestic arrears). All arrears are domestic and are the result of the drying up of market financing to cover the fiscal deficit. The composition of debt has also changed. Domestic debt was $1\frac{1}{2}$ percent of GDP in 2009/10. After the crisis, it increased to 6 percent of GDP (10 percent including arrears) at end-

Box 4. (Concluded)

2011/12, following the upward revision of the debt ceiling in November 2010.¹

Public debt issuances are placed largely domestically to commercial banks and big institutional investors. Domestic debt was previously overwhelmingly short-dated, consisting primarily of 91-day treasury bills, until 2010 when the government began issuing long-term bonds. The Central Bank of Swaziland (CBS) introduced its own paper with 182 days maturity in January 2011, and a year later added 273-day treasury bills to complement the existing shorter-term 28-day and 56-day CBS bills and 91-day government treasury bills.

Swaziland's external debt is primarily public, and corresponds to donor-financed investment projects. Private external debt is relatively low, about 3 percent of GDP, and stable. The external debt dynamic is therefore dominated by public debt. The external debt stock decreased slightly to about 9 percent of GDP at end-March 2012, remaining at a sustainable level. External debt has been contracted in a variety of currencies. The predominant currencies are the South African rand (about 40 percent), euro (20 percent), U.S. dollar (20 percent), and Japanese yen (10 percent). A number of other currencies also have smaller shares in the portfolio, including the Swiss franc, Danish krone, and Kuwaiti dinar.

¹ The government amended the law defining the domestic debt ceiling to raise it to 25 percent of GDP, beginning November 15, 2010.

Table 7. Swaziland: Public Debt Sustainability, 2007–17

	(Percent of GDP, unless otherwise indicated)												
	Actual						Projections						Debt-stabilizing primary balance ⁹
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Baseline: Public sector debt ¹	18.1	16.9	13.6	16.0	18.0	23.1	24.9	32.5	42.1	51.8	61.8	-0.1	
<i>Of which:</i> foreign-currency denominated	15.9	15.3	12.0	11.0	11.6	11.1	9.6	8.3	7.3	6.9	6.5		
Change in public sector debt	0.9	-1.3	-3.3	2.4	2.0	5.0	1.9	7.6	9.5	9.7	10.1		
Identified debt-creating flows	-2.7	-0.4	4.5	11.2	6.4	-3.9	-1.1	8.7	8.5	9.2	9.7		
Primary deficit	-2.2	-2.0	4.4	13.1	6.4	-3.8	-0.5	9.2	8.8	9.4	9.9		
Revenue and grants	38.3	41.1	36.8	25.6	24.9	38.3	37.1	27.6	28.7	28.7	28.6		
Primary (noninterest) expenditure	36.1	39.1	41.2	38.7	31.3	34.5	36.6	36.8	37.5	38.1	38.6		
Automatic debt dynamics ²	-0.5	1.6	0.1	-1.9	0.0	-0.1	-0.6	-0.5	-0.3	-0.2	-0.3		
Contribution from interest rate/ growth differential ³	-1.1	-1.0	-0.2	-0.4	0.1	-0.1	-0.6	-0.5	-0.3	-0.2	-0.3		
<i>Of which:</i> contribution from real interest rate	-0.6	-0.5	0.0	-0.1	0.2	-0.3	-0.6	-0.5	-0.2	-0.1	-0.1		
<i>Of which:</i> contribution from real GDP growth	-0.4	-0.5	-0.2	-0.2	0.0	0.3	0.0	-0.1	-0.1	-0.1	-0.2		
Contribution from exchange rate depreciation ⁴	0.6	2.6	0.3	-1.5	-0.1	...	...	...	...	...	...
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		
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 ⁵	3.6	-0.9	-7.8	-8.8	-4.4	8.8	2.9	-1.1	1.0	0.5	0.4		
Public sector debt-to-revenue ratio ¹	47.3	41.1	36.9	62.5	72.3	60.2	67.2	117.8	146.7	180.6	216.0		

(Continued)

Table 7. (Continued)

	(Percent of GDP, unless otherwise indicated)										
	Actual					Projections					Debt-stabilizing primary balance ⁹
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		2017
Gross financing need ⁶ (US\$ billions)	-2.2	1.2	5.1	11.3	7.2	0.4	-0.1	7.5	10.0	10.9	11.8
	-65.6	32.9	150.9	417.1	287.2	16.6	-4.6	292.4	397.0	439.5	486.2
Scenario with key variables at their historical averages ⁷						23.1	26.5	25.8	27.2	27.9	28.6
Scenario with no policy change (constant primary balance) in 2012-2017						23.1	41.2	46.3	58.0	71.4	88.4
Key macroeconomic and fiscal assumptions underlying baseline											3.5
Real GDP growth (percent)	2.8	3.1	1.2	1.9	0.3	-1.5	0.0	0.3	0.3	0.3	0.3
Average nominal interest rate on public debt (percent) ⁸	7.9	6.7	5.3	5.1	7.5	6.3	4.5	4.2	4.6	4.9	4.8
Average real interest rate (nominal rate minus change in GDP deflator, percent)	-3.9	-2.7	-0.1	-1.1	1.1	-2.0	-2.7	-2.0	-0.5	-0.1	-0.2
Nominal appreciation (increase in US dollar value of local currency, percent)	-4.1	-14.5	-2.2	15.2	1.0	...	...	...	...	...	...
Inflation rate (GDP deflator, percent)	11.8	9.4	5.4	6.1	6.4	8.3	7.2	6.2	5.1	5.0	5.0
Growth of real primary spending (deflated by GDP deflator, percent)	14.4	11.5	6.5	-4.1	-18.9	8.4	6.3	0.8	2.0	2.0	1.6
Primary deficit	-2.2	-2.0	4.4	13.1	6.4	-3.8	-0.8	9.2	8.8	9.4	9.9

¹ Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net of gross debt is used.

² Derived as $[(r - \pi(1+g) - g + \alpha\epsilon(1+\tau)] / (1+g+\pi+g\pi)$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; α = share of foreign-currency denominated debt; and ϵ = nominal exchange rate depreciation (measured by increase in local currency value of US dollar).

³ The real interest rate contribution is derived from the denominator in footnote 2 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

⁴ The exchange rate contribution is derived from the numerator in footnote 2 as $\alpha\epsilon(1+\tau)$.

⁵ For projections, this line includes exchange rate changes.

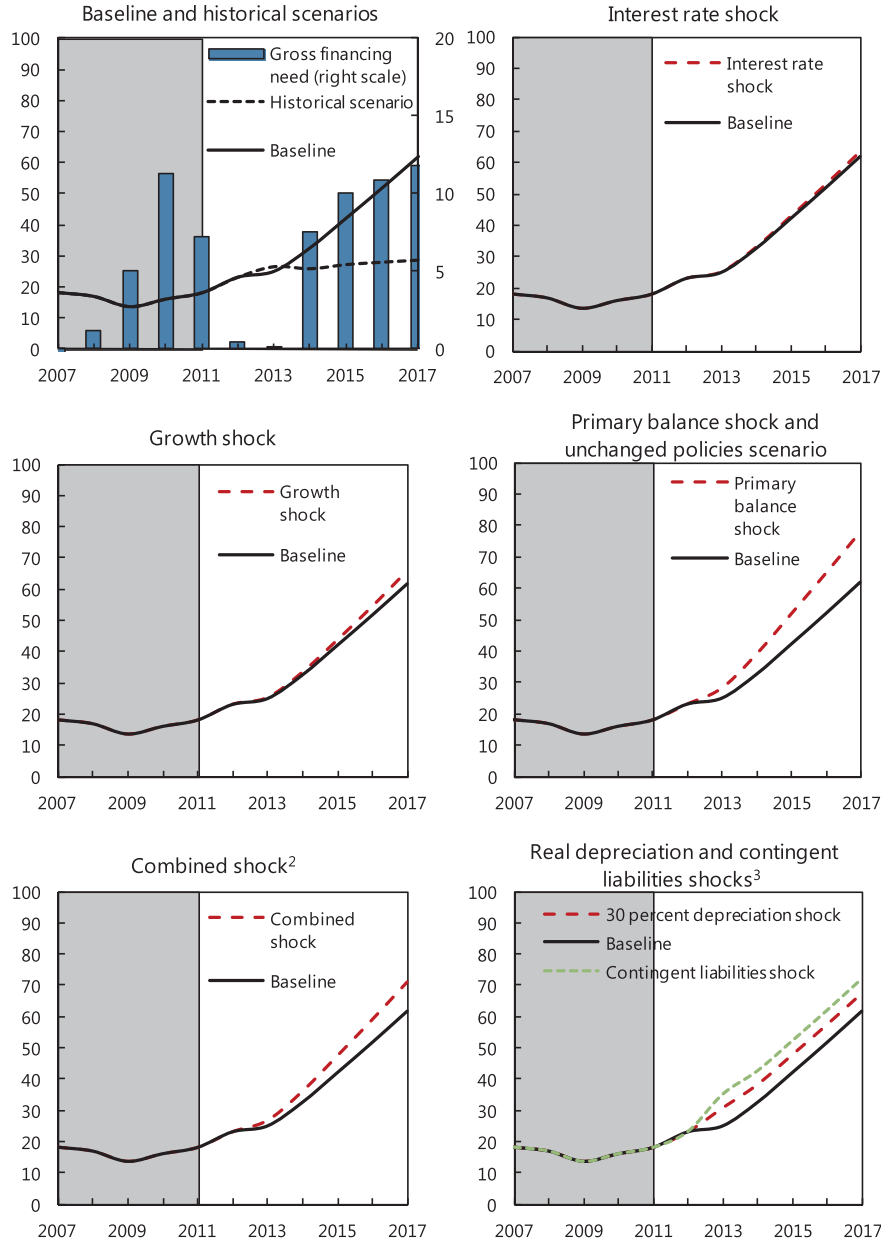
⁶ Defined as public sector deficit, plus amortization of medium- and long-term public sector debt, plus short-term debt at end of previous period.

⁷ The key variables include real GDP growth; real interest rate; and primary balance in percent of GDP.

⁸ Derived as nominal interest expenditure divided by previous period debt stock.

⁹ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

**Figure 7. Swaziland: Public Debt Sustainability: Bound Tests¹
(Public debt, percent of GDP)**



Sources: Country authorities; IMF staff estimates and projections.

¹ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.

² Permanent one-fourth standard deviation shocks applied to real interest rate, growth rate, and primary balance.

³ One-time real depreciation of 30 percent and 10 percent of GDP shock to contingent liabilities occur in 2012, with real depreciation defined as nominal depreciation (measured by percentage fall in dollar value of local currency) minus domestic inflation (based on GDP deflator).

Table 8. Swaziland: External Debt Sustainability, 2007–17

	(Percent of GDP, unless otherwise indicated)											
	Actual							Projections				Debt-stabilizing non-interest current account ⁶
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Baseline: External debt	18.0	16.9	13.5	13.9	14.5	13.9	11.7	10.4	9.8	10.2	11.6	-0.7
Change in external debt	1.0	-1.1	-3.5	0.5	0.6	-0.6	-2.2	-1.3	-0.6	0.4	1.4	
Identified external debt-creating flows (4+8+9)	0.1	4.8	11.4	4.3	5.0	-1.0	0.4	4.4	5.3	5.8	5.8	
Current account deficit, excluding interest payments	1.1	7.2	13.3	9.9	7.7	-1.0	0.9	5.0	5.9	6.3	6.3	
Deficit in balance of goods and services	11.0	15.4	16.4	15.2	15.1	11.5	15.1	11.7	11.0	11.7	11.7	
Exports	74.6	63.2	63.1	55.9	54.8	50.7	46.8	46.8	45.4	43.2	42.7	
Imports	85.5	78.6	79.5	71.1	69.9	62.2	61.9	58.5	56.4	54.9	54.4	
Net non-debt creating capital inflows (negative)	-0.5	-4.0	-2.0	-3.6	-2.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
Automatic debt dynamics ¹	-0.5	1.7	0.1	-2.0	-0.1	1.0	0.5	0.4	0.4	0.4	0.5	
Contribution from nominal interest rate	1.1	1.0	0.8	0.6	0.9	0.7	0.5	0.5	0.5	0.5	0.5	
Contribution from real GDP growth	-0.4	-0.6	-0.2	-0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	
Contribution from price and exchange rate changes ²	-1.2	1.2	-0.5	-2.5	-1.0	...	...	...	...	...	...
Residual, incl. change in gross foreign assets (2-3) ³	0.8	-5.9	-14.8	-3.8	-4.4	0.4	-2.3	-5.6	-5.9	-5.4	-4.4	
External debt-to-exports ratio (in percent)	24.2	26.8	21.3	24.9	26.5	27.4	25.0	22.2	21.6	23.6	27.2	
Gross external financing need (billions of US dollars) ⁴	0.1	0.2	0.4	0.4	0.4	0.0	0.1	0.3	0.3	0.3	0.4	
(percent of GDP)	3.3	8.4	14.2	11.1	9.7	1.0	2.5	6.8	7.8	8.3	8.5	
Scenario with key variables at their historical averages ⁵						13.9	12.1	8.0	4.4	1.8	0.2	-2.3

Table 8. (Continued)

	(Percent of GDP, unless otherwise indicated)											
	Actual						Projections					
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Debt-stabilizing non-interest current account ⁶
Key Macroeconomic Assumptions												
Underlying Baseline												
Real GDP growth (in percent)	2.8	3.1	1.2	1.9	0.3	-1.5	0.0	0.3	0.3	0.3	0.3	0.3
GDP deflator in US dollars (change in percent)	7.3	-6.5	3.1	22.3	7.4	-4.2	1.6	2.1	1.4	1.5	1.7	1.7
Nominal external interest rate (in percent)	7.1	5.3	4.7	6.0	7.1	4.7	3.9	4.0	4.5	4.9	5.0	5.0
Growth of exports (US dollar terms, in percent)	12.8	-18.3	4.1	10.4	5.6	-12.7	-6.3	2.6	-1.3	-3.1	0.7	0.7
Growth of imports (US dollar terms, in percent)	10.0	-11.4	5.5	11.5	5.9	-16.1	1.2	-3.2	-1.9	-0.8	1.1	1.1
Current account balance, excluding interest payments	-1.1	-7.2	-13.3	-9.9	-7.7	1.0	-0.9	-5.0	-5.9	-6.3	-6.3	-6.3
Net non-debt creating capital inflows	0.5	4.0	2.0	3.6	2.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0

¹ Derived as $[r - g - \tau(1+g) + ea(1+\tau)] / (1+g+\tau+gr)$ times previous period debt stock, with r = nominal effective interest rate on external debt; τ = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

² The contribution from price and exchange rate changes is defined as $[-\tau(1+g) + ea(1+\tau)] / (1+g+\tau+gr)$ times previous period debt stock. r increases with an appreciating domestic currency ($e > 0$) and rising inflation (based on GDP deflator).

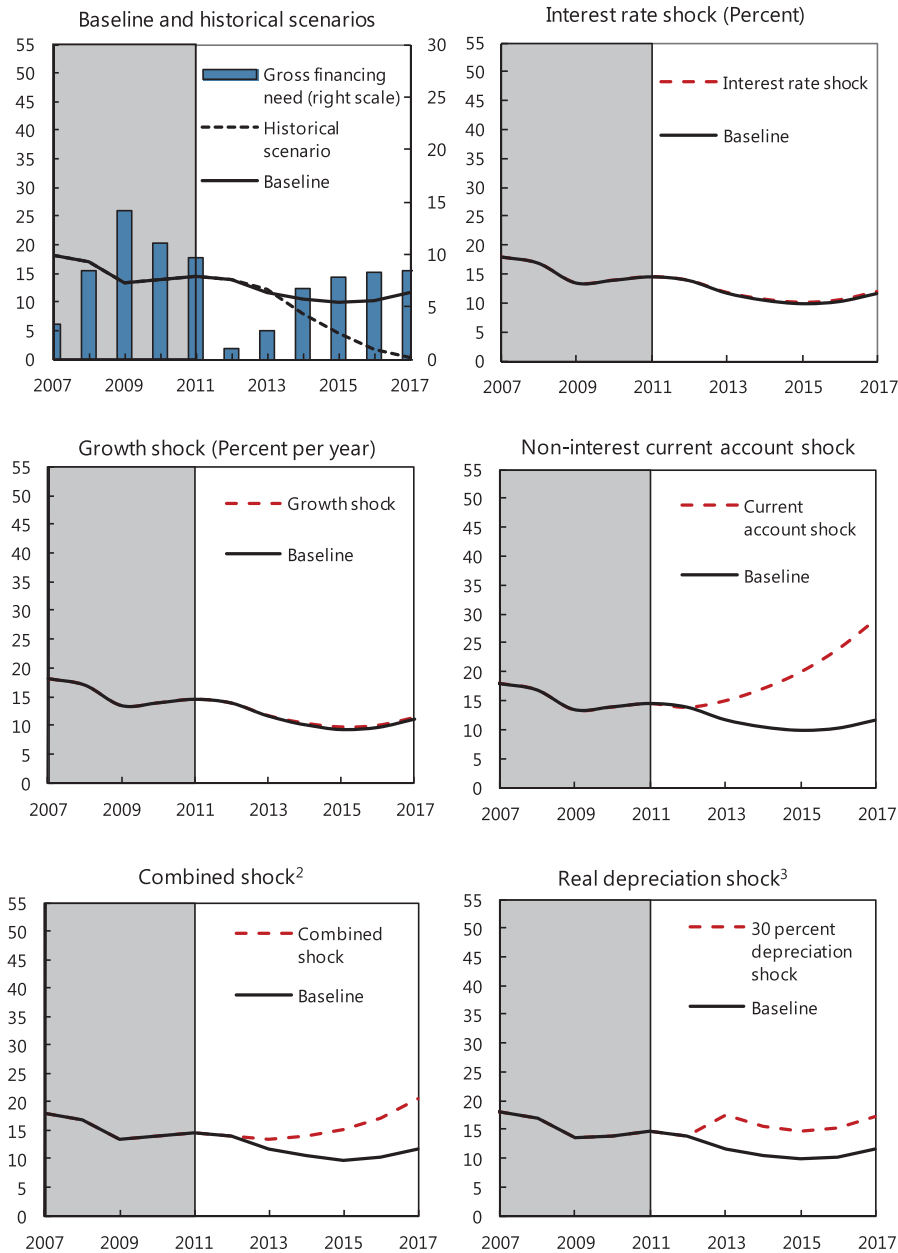
³ For projection, line includes the impact of price and exchange rate changes.

⁴ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

⁵ The key variables include real GDP growth, nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

⁶ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

**Figure 8. Swaziland: External Debt Sustainability: Bound Tests¹
(External debt, percent of GDP)**



Sources: Country authorities; IMF staff estimates and projections.

¹ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

² Permanent one-fourth standard deviation shocks applied to real interest rate, growth rate, and current account balance.

³ One-time real depreciation of 30 percent occurs in 2012.

Risks from Financial Sector Vulnerabilities

A. Risks Stemming from Vulnerabilities in the Banking Sector

All commercial banks are well capitalized and have maintained strong risk-adjusted capital adequacy ratios (CAR) over the years. The regulatory capital to risk-weighted assets ratio for the whole banking system stood at 21.4 percent at end-September 2012, with a slight increase compared with the level at end-December 2011. The CAR positions of the four banks range from 11.5 to 35.7 percent (end-September 2012), well above the minimum statutory requirement of 8 percent. In addition, banks have been profitable and have maintained a strong position between 2006 and 2011, with the ratios of return on assets and return on equity above international standards.¹⁵

However, the first nine months of 2012 have experienced a worsening of some financial sector stability indicators (FSIs), compared to the end of 2011. Specifically, return on assets and return on equity have decreased while the ratio of nonperforming loans to total loans has remained somewhat flat. The worsening in these indicators reflects the current difficulties faced by commercial banks because of the economic contraction. Specifically, customers are struggling to meet their financial obligations while loan books and deposits are stagnant or growing only marginally.

In addition, stress tests of commercial bank balance sheets point to some underlying risks for the banking system in Swaziland (Box 6). Specifically, exchange rate, credit, liquidity, and concentration risks could potentially pose a challenge to commercial banks. Foreign exchange risk is related to the risk that changes in the exchange rate can affect the value of bank's assets and liabilities denominated in foreign currency. For banks in Swaziland, the exchange rate risk would stem from a possible appreciation of the local currency against

¹⁵ It is generally considered that a ratio of return on assets above 2 and a ratio of return on equity above 20 indicate profitability.

Box 5. Stress Tests: Assumptions and Methodology

Credit Risk

Measures banking sector vulnerability to shocks related to an assumed weakening loan portfolio of all banks where 9 percent of all current loans will migrate to nonperforming loans (NPLs). In addition, an increase in NPLs is assumed where the asset quality of exiting NPLs will deteriorate. Specifically, substandard loans will become doubtful, and doubtful loans will become bad.

Exchange Rate Risk

The exchange rate stress assesses different movements of the lilangeni against other major currencies and measures the impact of an exchange rate shock on the bank's capital position.¹

Liquidity Risk

The liquidity stress test identifies the banks that would first experience problems meeting the demands of their depositors in the event of a systemic crisis.

Concentration Risk

The concentration risk assesses the exposure of the banking system to large borrowers and the effect that a failure of the largest borrower(s) would have on the capital adequacy ratio of the banking system.

¹The net income effect of exchange rate risk is not analyzed, because examination of historic trends in banks' income from foreign exchange dealing suggests that this type of income is not influenced by the level of the exchange rate but rather by the buy-sell spreads.

other major currencies. Credit risk encompasses the risk that the promised cash flow from loans on the books of commercial banks may not be paid. In Swaziland, the main vulnerability lies in loan provisioning that is not adequate and would cover only a small portion of the losses should borrowers default. Concentration risk is a type of credit risk where the vulnerability is embedded in the exposure of banks to one or more large borrowers. Liquidity risk can be faced in the event that deposits are withdrawn from the system. For commercial banks in Swaziland, liquid assets only cover about 25 percent of liquid liabilities, indicating that banks would become illiquid quickly in the event of large deposit withdrawals.

This tight liquidity position, as well as the challenging economic situation in Swaziland, puts additional pressure on commercial banks. Should there be a significant deposit outflow, there is no crisis resolution mechanism in place to protect depositors in the event of a bank failure. The central bank has the role

of lender of last resort. However, it may not be in a position to exercise this role fully, owing to its limited resources and the need to preserve the parity against the rand. Therefore, there is a need for legislation for the government to provide enough resources, if needed, for the central bank to intervene in commercial banks. Such legislation could also introduce a limited deposit insurance scheme to protect depositors from possible bank failures.

B. Risks Posed by Nonbank Financial Institutions

The nonbank financial sector has been growing rapidly. In particular, savings and credit cooperatives have become increasingly popular, comprising 67 institutions serving about 37,000 members (out of a total population of 1.2 million) and holding about 2 percent of the assets of the whole financial system.¹⁶ Loans from savings and credit cooperatives are more accessible to Swaziland's population and are more affordable, as cooperatives do not have to abide by risk-weighted prudential regulations. In addition, commercial banks are generally more risk averse and reluctant to lend, which has made cooperatives preferred, even among civil servants. Consequently, savings and credit cooperatives play a major role in the financial system of Swaziland because they mobilize domestic savings and create investment opportunities for small savers.

Capital market institutions are another important element to the financial system in Swaziland. Although this segment comprises a small number of institutions, comprising four collective investment schemes (CIS) and two licensed stock brokerage firms, it has grown considerably in the past five years, currently managing about 14 percent of all assets in the financial system, equal to about 16 percent of GDP. In addition, of the four CIS, one controls about 70 percent of the total funds under management.

Making the Financial Sector Regulatory Authority (FSRA) operational has been a welcome step towards the adequate supervision and regulation of nonbank financial institutions. All SACCOs have been requested to provide financial statements in order for the FSRA to be able to undertake off-site supervision. In addition, a regulatory framework for SACCOs is in the development stage. However, CIS are yet to be properly regulated and supervised, thus posing potential risks to the stability of the financial system.

Because of the lack of regulation and supervision, nonbank financial institutions could pose a risk to financial stability in Swaziland. A failure of one or more capital market institutions or one or more savings and credit

¹⁶ Numbers as of December 2011.

cooperatives (SACCOs) could jeopardize financial stability. These institutions are quite vulnerable in the event of a shock to the economy because there are no safety nets in place to protect depositors. Specifically, nonbank financial institutions do not provide deposit insurance guarantees and do not have access to the central bank as lender of last resort.

Introducing a limited deposit insurance scheme could be affordable. Covering 80 percent of deposits in the SACCOs would cost about E 0.6 billion (2 percent of GDP). In the absence of such safety nets, the contagion effect could spread to commercial banks and lead to considerable deposit outflow. Such a turn of events would not only weaken the reserve position of the central bank but also restrain commercial banks' capacity to finance the private sector and thus stimulate private sector-led growth.

C. Looking at Risks from the Balance Sheet Approach Point of View

The Balance Sheet Approach (BSA) analysis identifies the main vulnerability for Swaziland's financial system (Table 9.1).¹⁷ The BSA analysis applied to Swaziland allows for a point-in-time assessment of the existing mismatches in the country's main balance sheets and highlights cross-sectoral risks (Box 6).¹⁸ The financial structure of an economy, in particular the composition and size of assets and liabilities of the main sectors, provides important information regarding possible vulnerability to shocks.

The financial sector's credit exposure to the private non-financial sector is a central transmission channel for balance sheet vulnerabilities. Most banking sector assets are loans to the private non-financial sector, making their performance under a fiscal crisis critical to solvency. In addition, the central bank's gross official reserves (E 3.6 billion) at end-2011 are below the level of private sector deposits in the domestic banking system (E 4.4 billion). This low level of reserves may not be sufficient to provide a cushion in the event of an external shock. At the same time, the private sector's foreign assets (E 16.2 billion) exceed the level of deposits in the banking system. However, it is not clear to what extent the external assets of the private sector can cushion an external shock as these are long-term assets invested abroad, which are less liquid.

¹⁷ The data used are monetary statistics, the International Investment Position (IIP), and government debt data, as reported by the authorities to the IMF. The latest IIP available is for 2010, and the 2011 estimates were derived using the preliminary estimates for the 2011 balance of payments. Data on 2010 public debt is still being finalized, but a rough decomposition of public debt in domestic and foreign currency is available.

¹⁸ The BSA is based on a matrix of financial assets and liabilities of four sectors of the economy: the government, the financial sector (including the central bank), the private sector, and the rest of the world (external sector). By construction, the sum of all the net positions of each sector is equal to zero.

At end-2011, the private sector was exposed primarily to the rest of the world and the government with net positions of E -5.1 billion and E -1.7, respectively. The government's liabilities at end-2011 amounted to E 6.8 billion (23.6 percent of GDP), driven by the lack of financing and the accumulation of external public debt (E 3.4 billion, 11.6 percent of GDP). At the same time, the government's assets are predominantly illiquid (i.e., part or full ownership of companies in competitive sectors) and cannot be sold quickly in the event of an external shock. The government's limited liquid financial assets were deposited at the central bank (E 1.9 billion, 6.6 percent of GDP) and also cannot be used because this would create pressures on the gross official reserves of the central bank.

The dominance of the government in the economy and the presence of a small number of large borrowers also present a risk to the financial system. A number of state-owned enterprises (SOEs) and small and medium-size enterprises (SMEs) are heavily dependent on business from the government. When the private sector (corporate and household) does reach a point where the nonpayment of arrears results in bankruptcies, not only will banks be affected but the whole economy may face a significant recession.

Against this background, if market perceptions about the solvency of the private sector turn negative, the risk of portfolio outflows could rise. The financial system could withstand a shock of up to E2 billion in deposit outflows. However, should there be larger deposit outflows, the balance sheets of banks would shrink by more than half; and reserves of the central bank could be depleted to a level where external stability could be jeopardized (Table 9.2).

The occurrence of deposit outflows would have an additional second-round effect on the financial system. With a much smaller deposit base, banks will need to shrink their domestic assets, bringing about a sizable negative impact on private sector credit. This would ultimately lead to a decline in economic activity. With lower economic activity, the risk of loans becoming nonperforming becomes even higher. With an increase in nonperforming loans, commercial banks would be put under additional pressure because they would have to increase the level of provisioning. With the additional liquidity squeeze, banks would have to ask the central bank to step in as a lender of last resort. However, the central bank would not be able to do so because it would not have sufficient reserves. Therefore, unless the fiscal sector stabilizes where expenditure is brought in line with available financing, and confidence in the government sector is restored, it is the private sector that will have to adjust through a much lower level of economic activity and consumption.

Box 6. The Balance Sheet Approach¹

The Balance Sheet Approach (BSA) helps identify sources of vulnerability in the economy from mismatches between sectoral balance sheets. This approach examines the stock of variables in the sectoral balance sheets of a country and its assets and liabilities. Four types of balance sheet mismatches are identified. All four can help determine the ability of a country to honor its commitments in the event of an internal or external shock.

- ✓ Maturity mismatches, i.e., a gap between the liabilities due in the short run and available liquid assets. In such a scenario, the government (or any other sector) faces a short-term risk of much higher interest rates, which would strengthen its liquidity and eventually become a rollover risk as investors choose not to roll over maturing debt.
- ✓ Currency mismatches, i.e., a risk associated with capital loss owing to a change in the exchange rate. Considering that banks have a large volume of liabilities denominated in foreign currency, a large depreciation of the domestic currency can increase the burden of the debt held in foreign currency. It can also lead to a contraction of investment, especially foreign investment.
- ✓ Capital structure problems, i.e., a heavy reliance on debt rather than equity financing. When debt financing is preferred to equity financing, banks are less likely to be in a position to offset shocks. This is because debt repayments remain unchanged regardless of the situation of the country while equity could be used as a buffer because if earnings drop so would remit dividends. Therefore, a country that finances its current account deficit with debt, especially short term, places itself at a greater risk than it would if long-term debt or foreign direct investment were used.
- ✓ Solvency problems, i.e., when assets are not sufficient to cover liabilities. When a country is facing a solvency problem, liabilities (including contingent liabilities) are not commensurate with assets or with the future revenue stream. Such a situation occurs, for example, in a country where the government debt is well above its available assets and the net present value of its expected future fiscal balances.

The balance sheet approach can also assess the case for external financial intervention. If vulnerabilities stem from the balance sheet of the private sector, the government could intervene by restructuring the sector's liabilities. In some cases, external financial support may be justified, e.g., when the central bank does not hold an adequate level of foreign exchange reserves.

¹ See Allen and others (2002), Rosenberg and others (2005), and Mathisen and Pellechio (2006).

Table 9.1. Swaziland: Net Intersectoral Asset and Liability Positions, 2011

Issuer of liability (debtor) →	Public sector									Financial Sector						Nonfinancial Private Sector						Rest of the World											
	Central Government			State and Local Government			Public Nonfinancial Corporations			Other Depository Corporations			Other Financial Corporations			Nonfinancial Corporations			Other Resident Sectors			Nonresident											
	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP						
↓ Holder of liability (creditor) ↓	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP
Central bank																																	
In domestic currency	1.9	0.8	1.1										0.9	0.0	0.9	0.4	0.0	0.4				0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	3.7	-3.6
In foreign currency	1.8	0.8	1.1							0.9	0.0	0.9	0.4	0.0	0.4				0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Central government	0.8	1.9	-1.1							1.2	0.5	0.7				1.4	1.4	1.4										0.0	3.7	-3.6			
In domestic currency	0.8	1.8	-1.1							1.2	0.5	0.7				1.4	1.4	1.4										3.4	3.4	3.4			
In foreign currency	0.1	-0.1																										3.4	3.4	3.4			
State and local government																																	
In domestic currency										0.0	0.0	0.0																					
In foreign currency										0.0	0.0	0.0																					
Public nonfinancial Corps.																																	
In domestic currency										0.2	0.4	-0.2																					
In foreign currency										0.2	0.4	-0.2																					
Other depository corporations	0.0	0.9	-0.9	0.5	1.2	-0.7	0.0	0.0	0.0							0.9	0.2	0.7	4.4	4.1	0.3	2.1	3.6	-1.5	1.0	1.5	-0.5	1.0	1.5	-0.5			
In domestic currency	0.0	0.9	-0.9	0.5	1.2	-0.7	0.0	0.0	0.0				0.9	0.2	0.7	4.4	4.1	0.3	2.1	3.6	-1.5	1.0	1.5	-0.5	1.0	1.5	-0.5						
In foreign currency																																	
Other financial corporations	0.0	0.4	-0.4							0.2	0.9	-0.7																					
In domestic currency	0.0	0.4	-0.4							0.2	0.9	-0.7																					
In foreign currency																																	

(Continued)

Table 9.1 (Continued)

Issuer of liability (debtor) →	Public sector												Financial Sector						Nonfinancial Private Sector						Rest of the World								
	Central Bank			Central Government			State and Local Government			Public Nonfinancial Corporations			Other Depository Corporations			Other Financial Corporations			Nonfinancial Corporations			Other Resident Sectors			Nonresident								
	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP			
↓ Holder of liability (creditor) ↓																																	
Nonfinancial corporations				1.4	-1.4								4.1	4.4	-0.3													12.0	16.5	-4.5			
In domestic currency				1.4	-1.4								4.1	4.4	-0.3													12.0	16.5	-4.5			
In foreign currency																																	
Other resident sectors	0.0	0.1	-0.1										3.6	2.1	1.5																		
In domestic currency	0.0	0.1	-0.1										3.6	2.1	1.5																		
In foreign currency																																	
Nonresidents	3.7	0.1	3.6	3.4	-3.4								1.5	1.0	0.5				16.5	12.0	4.5												
In domestic currency	0.0	0.0	0.0										0.0	0.0	0.0																		
In foreign currency	3.7	0.0	3.6	3.4	-3.4								1.5	1.0	0.5				16.5	12.0	4.5												
	(Percent of GDP)																																
Central bank				6.6	2.6	3.9							3.0	0.0	3.0	1.2	0.0	1.2				0.2	0.1	0.2	0.2	0.1	0.2	0.2	12.8	-12.6			
In domestic currency				6.3	2.6	3.7							3.0	0.0	3.0	1.2	0.0	1.2				0.2	0.1	0.2	0.2	0.1	0.2	0.0	0.0	0.0			
In foreign currency				0.2		0.2																						0.2	12.7	-12.6			
Central government	2.6	6.6	-3.9										4.3	1.9	2.4				4.8	4.8					4.8	4.8		11.6	11.6				
In domestic currency	2.6	6.3	-3.7										4.3	1.9	2.4				4.8	4.8					4.8	4.8							
In foreign currency																																	
State and local government																												11.6	11.6				
In domestic currency													0.1	0.1	0.0																		
In foreign currency													0.1	0.1	0.0																		

Table 9.1 (Continued)

Issuer of liability (debtor) →	Public sector						Financial Sector						Nonfinancial Private Sector						Rest of the World														
	Central Government			State and Local Government			Public Nonfinancial Corporations			Other Depository Corporations			Other Financial Corporations			Nonfinancial Corporations			Other Resident Sectors			A	L	NP									
	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP												
↓ Holder of liability (creditor) ↓	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP
Public nonfinancial corps.										0.7	1.5	-0.7																					
In domestic currency										0.7	1.5	-0.7																					
In foreign currency										0.7	1.5	-0.7																					
Other depository corporations	0.0	3.0	-3.0	1.9	4.3	-2.4	0.1	0.1	0.0	1.5	0.7	0.7				3.2	0.8	2.4	15.3	14.3	1.1	7.4	12.7	-5.2	3.5	5.0	-1.6						
In domestic currency	0.0	3.0	-3.0	1.9	4.3	-2.4	0.1	0.1	0.0	1.5	0.7	0.7				3.2	0.8	2.4	15.3	14.3	1.1	7.4	12.7	-5.2	3.5	5.0	-1.6						
In foreign currency																																	
Other financial corporations	0.0	1.2	-1.2																														
In domestic currency	0.0	1.2	-1.2																														
In foreign currency																																	
Nonfinancial corporations																																	
In domestic currency																																	
In foreign currency																																	
Other resident sectors	0.1	0.2	-0.2																														
In domestic currency	0.1	0.2	-0.2																														
In foreign currency																																	
Nonresidents	12.8	0.2	12.6				11.6	-11.6		5.0	3.5	1.6				57.2	41.6	15.5															
In domestic currency	0.0	0.0	0.0							0.0	0.0	0.0																					
In foreign currency	12.7	0.2	12.6				11.6	-11.6		5.0	3.5	1.6				57.2	41.6	15.5															

Source: Swaziland authorities; and IMF staff estimates and computations.

1A: Assets, L: liabilities, NP: Net Position (A-I).

Table 9.2. Swaziland: Balance Sheet Impact of a Deposit Outflow

Issuer of liability (debtor) →	Public sector									Financial Sector									Nonfinancial Private Sector									Rest of the World								
	Central Bank			Central Government			State and Local Government			Public Nonfinancial Corporations			Other Depository Corporations			Financial Corporations			Other Financial Corporations			Nonfinancial Corporations			Other Resident Sectors			Nonresident								
	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP						
↓ Holder of liability (creditor) ↓	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP
Central bank																																				
In domestic currency																																				
In foreign currency																																				
Central government	0.8	1.9	-1.1																																	
In domestic currency	0.8	1.8	-1.1																																	
In foreign currency	0.1		-0.1																																	
State and local government																																				
In domestic currency																																				
In foreign currency																																				
Public nonfinancial Corps.																																				
In domestic currency																																				
In foreign currency																																				
Other depository corporations	0.0	0.9	-0.9	0.5	1.2	-0.7	0.0	0.0	0.0	0.4	0.2	0.2							0.9	0.2	0.7	2.4	2.1	0.3	0.1	1.6	-1.5	1.0	1.5	-0.5						
In domestic currency	0.0	0.9	-0.9	0.5	1.2	-0.7	0.0	0.0	0.0	0.4	0.2	0.2							0.9	0.2	0.7	2.4	2.1	0.3	0.1	1.6	-1.5	1.0	1.5	-0.5						
In foreign currency																																				
Other financial corporations	0.0	0.4	-0.4																																	
In domestic currency	0.0	0.4	-0.4																																	
In foreign currency																																				

(Emalangeni billions)

Table 9.2 (Continued)

Issuer of liability (debtor) →	Public sector						Financial Sector						Nonfinancial Private Sector						Rest of the World								
	Central Bank			State and Local Government			Public Nonfinancial Corporations			Other Depository Corporations			Financial Corporations			Nonfinancial Corporations			Other Resident Sectors			Nonresident					
	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP	A	L	NP			
↓ Holder of liability (creditor) ↓	1.7	0.1	1.6	3.4	-3.4		1.5	1.0	0.5	18.5	14.0	4.5	2.0	2.0	2.0	14.0	18.5	-4.5	2.0	2.0	0.0	2.0	2.0	0.0			
Nonfinancial corporations				1.4	-1.4					2.1	2.4	-0.3															
In domestic currency				1.4	-1.4					2.1	2.4	-0.3															
In foreign currency																											
Other resident sectors	0.0	0.1	-0.1				1.6	0.1	1.5																		
In domestic currency	0.0	0.1	-0.1				1.6	0.1	1.5																		
In foreign currency																											
Nonresidents	1.7	0.1	1.6	3.4	-3.4		1.5	1.0	0.5	18.5	14.0	4.5	2.0	2.0	2.0	14.0	18.5	-4.5	2.0	2.0	0.0						
In domestic currency	0.0	0.0	0.0				0.0		0.0																		
In foreign currency	1.7	0.0	1.6	3.4	-3.4		1.5	1.0	0.5	18.5	14.0	4.5	2.0	2.0	2.0	14.0	18.5	-4.5	2.0	2.0	0.0						
(Percent of GDP)																											
Central bank				6.6	2.6	3.9				3.0	0.0	3.0	1.2	0.0	1.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	5.8	-5.6	0.2	5.8	-5.7
In domestic currency				6.3	2.6	3.7				3.0	0.0	3.0	1.2	0.0	1.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	5.8	-5.7	0.2	5.8	-5.7
In foreign currency				0.2		0.2																					
Central government	2.6	6.6	-3.9							4.3	1.9	2.4				4.8	4.8	4.8	4.8	4.8	4.8	11.6	11.6	11.6	11.6	11.6	11.6
In domestic currency	2.6	6.3	-3.7							4.3	1.9	2.4				4.8	4.8	4.8	4.8	4.8	4.8	11.6	11.6	11.6	11.6	11.6	11.6
In foreign currency	0.2		-0.2																								
State and local government																											
In domestic currency										0.1	0.1	0.0															
In foreign currency										0.1	0.1	0.0															

(Continued)

Table 9.2 (Continued)

Issuer of liability (debtor) →	Public sector					Financial Sector			Nonfinancial Private Sector			Rest of the World	
	Central Bank	Central Government	State and Local Government	Public Nonfinancial Corporations	Other Depository Corporations	Other Financial Corporations	Nonfinancial Corporations	Other Resident Sectors	Nonfinancial Corporations	Other Resident Sectors	Nonresident		
													Central Government	State and Local Government	Public Nonfinancial Corporations	Other Depository Corporations	Other Financial Corporations	Nonfinancial Corporations	Other Resident Sectors	Nonresident
Public nonfinancial corps.					0.7	1.5	-0.7						
In domestic currency					0.7	1.5	-0.7						
In foreign currency													
Other depository corporations	0.0	3.0	-3.0	1.9	4.3	-2.4	0.1	0.1	0.0	1.5	0.7	0.7	
In domestic currency	0.0	3.0	-3.0	1.9	4.3	-2.4	0.1	0.1	0.0	1.5	0.7	0.7	
In foreign currency													
In domestic currency	0.0	1.2	-1.2							0.8	3.2	-2.4	
In foreign currency													
Nonfinancial corporations					4.8	-4.8				7.3	8.4	-1.1	
In domestic currency					4.8	-4.8				7.3	8.4	-1.1	
In foreign currency													
Other resident sectors	0.1	0.2	-0.2							5.7	0.5	5.2	
In domestic currency	0.1	0.2	-0.2							5.7	0.5	5.2	
In foreign currency													
Nonresidents	5.8	0.2	5.6		11.6	-11.6				5.0	3.5	1.6	
In domestic currency	0.0	0.0	0.0							0.0	0.0	0.0	
In foreign currency	5.8	0.2	5.7		11.6	-11.6				5.0	3.5	1.6	
										64.1	48.6	15.5	6.9
										6.9	6.9	0.0	
										64.1	48.6	15.5	6.9
										6.9	6.9	0.0	
										48.6	64.1	-15.5	
										48.6	64.1	-15.5	
										6.9	6.9	0.0	
										6.9	6.9	0.0	
										3.5	5.0	-1.6	

Source: Swaziland authorities; and IMF staff estimates and computations.

1 A: Assets, L: liabilities, NP: Net Position (A-L).

Restoring the Future of the Swaziland Economy

The current economic policy stance in Swaziland is unsustainable over the medium term. On current trends, the fiscal position is likely to deteriorate further, reflecting uncontrolled spending coupled with a projected decline in SACU transfers over the medium term. Given that external budget financing from donors has not been secured yet and domestic financing is limited, the government is not expected to be in position to repay all its arrears in 2012/13, despite the higher SACU transfers. The financing gap could nonetheless be filled with credible policies aimed at reducing the wage bill by E 300 million, thus restoring confidence in fiscal policy.

A. Defining a Pro-Poor Fiscal Adjustment

The magnitude of the fiscal adjustment will largely depend on Swaziland's capacity to attract external financing to support the budget. Assumptions on financing are based on budget support, expected to be disbursed against an implemented fiscal adjustment, as well as reasonable domestic placement of government paper (see IMF, 2011a). The adjustment would amount to about 6 percent of GDP (Table 10). The revenue improvement (about 1.8 percent of GDP) mostly comes from measures already in place: VAT will bring more revenue from 2012/13 and its full impact will be shown in next fiscal year, while continued improvements in tax administration will help improve taxpayer compliance. The most critical aspect of the fiscal consolidation will be the adjustment on expenditure (about 4 percent of GDP). This adjustment requires new measures, notably on the wage bill. However, additional savings, beyond the 4 percent of GDP already identified, may be needed to create room for additional poverty alleviating spending. This section provides an overview on how expenditure cuts could be achieved and where efforts could be made to create space for additional poverty reducing expenditure.

Table 10. Proposed Fiscal Adjustment, 2011/12–2016/17

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
	(percent of GDP, unless otherwise indicated)					
Net lending/borrowing	-3.2	-4.1	0.0	-2.0	-2.0	-2.0
Interest payment	1.3	1.0	1.0	1.2	1.3	1.3
Primary net lending/borrowing						
Revenue	24.5	37.6	37.1	27.4	28.2	28.2
<i>Of which:</i> SACU transfers	9.8	22.6	21.5	11.5	12.1	12.1
Primary spending	29.2	35.7	36.0	28.1	28.9	28.9
<i>Of which:</i> wage bill	14.9	14.3	13.8	10.6	10.6	10.6
Arrears	-2.8	5.1	0.0	0.0	0.0	0.0
Public debt	18.3	24.1	23.2	23.8	24.0	24.6
Overall impact of measures (+ = improvement)	...	0.7	0.9	2.9	0.5	0.0
Revenue (+ = increase)	...	0.2	0.6	0.5	0.5	0.0
Implementation of VAT ¹	...	0.2	0.4	0.1	0.1	0.0
Improvements in revenue administration	...	0.0	0.2	0.2	0.2	0.0
Tax policy reform	...	0.0	0.0	0.2	0.2	0.0
Expenditure (- = cut)	...	-0.5	-0.3	-2.4	0.0	0.0
Wage bill	...	-0.5	0.3	-1.3	0.0	0.0
EVERS implementation (permanent effect)	...	0.0	-0.5	-1.3	0.0	0.0
EVERS cost (temporary effect)	...	0.0	1.2	0.0	0.0	0.0
Other	...	-0.5	-0.5	0.0	0.0	0.0
Other recurrent expenditure cuts ²	...	0.0	-0.6	-1.1	0.0	0.0
Memorandum items						
Public debt	18.3	24.1	23.2	23.8	24.0	24.6
Nominal GDP (Emalengeni billions)	29.3	31.2	33.1	35.1	37.7	40.6

Source: Swaziland authorities; and IMF staff estimates and projections.

¹Most of the gains from the implementation of VAT are generated in 2012/13 and 2013/14, which will see the first full year of a complete roll-out. Further gains are expected as taxpayer compliance continues to improve. VAT collection has been so far fully in line with the authorities' projections.

²Options exist to implement cuts in transfers, and goods and services, without altering the fight against poverty.

³All measures have a permanent impact, except the cost of EVERS, which explains why the improvement in 2014/15 also includes the expiration of this cost.

⁴Other factors include the impact of (i) the volatility of SACU transfers, (ii) autonomous factors linked to GDP growth, and (iii) a smoothing of capital spending over the years in response to SACU transfers fluctuations.

The UFAR could cover the remainder of fiscal year 2012/13, so as to reduce the wage bill and cut non-priority spending (Table 10). An upfront cut in the wage bill would be needed, of about E 300 million on an annual basis, to be implemented in 2012/13. The bulk of the adjustment would then come in 2013/14, with the launch of the EVERS program, and additional cuts targeting mostly recurrent spending on non-priority areas. Further wage bill cuts could be based on the implementation of a revised early-retirement system, EVERS (Table 11),¹⁹ which would come in addition to the wage and hiring freeze currently in place. Options could also be considered to offer an alternative to EVERS, such as retrenchments or wage cuts (either graduated to affect only the highest wages, or across the board). However, wage cuts would need to be assessed against their impact on poverty. Similarly, retrenchment would be best cast into a broader reform of streamlining public services, so that services to the poor would not be affected.

Table 11. The Revised Early Retirement Scheme EVERS

Pension benefits for potential EVERS candidates		
Average final salary of EVERS candidates	120 thousand	Ω
Average time of service	20 year	D
Monthly payment, under the rule of 50, with 20 years of service	48 thousand	$W=\Omega*(D/50)$
Lump sum payment by the pension fund	240 thousand	$\Sigma=1/4W*D$
Revised EVERS		
Saving goal ¹	600 million	S
Number of takers needed	5,000 people	$M=S/\omega$
Budget cost of EVERS, per candidate ²	120 thousand	$L=1/2\Sigma$
Budget cost of EVERS, total	600 million	$K=L*M$
Financing ³		
Existing allocation	210 million	
Allocation 2013/14	300 million	
Allocation 2014/15	90 million	

Source: Swaziland authorities; IMF staff estimates.

¹Savings are generated at the time of separation. The revised EVERS assumes that half of takes would leave in 2013/14, and the other half in 2014/15.

²The revised EVERS is predicated on halving the lump sum amount paid by the government that tops up the regular pension benefit. The lump sum amount is paid over a period of 18 months.

³The budget has already saved E 210 million for EVERS. The additional amounts are budgeted according the projected payments of the lump sum.

¹⁹ The parameters of the EVERS program have been adequately revised by the authorities. If implemented with a less generous contribution from the government, it could indeed generate the expected savings at an affordable cost.

Table 12. Social, Security, and Sovereign Spending

	2010/11	2010/12
	Act.	Proj.
	(percent of GDP)	
Social expenditure	11.9	11.0
Security expenditure	4.7	4.1
Sovereign expenditure	1.6	1.6
Royal emoluments and civil list	0.6	0.7
Swazi National Treasury ¹	1.1	0.9

Source: Swaziland authorities; IMF staff computations.

¹Spending on “National Swazi Treasury” covers State house investment and repairs, owned by the King.

The UFAR could also specify additional spending cuts over the medium term, consistent with reasonable revenue and financing projections, as well as the need to replenish reserves of the central bank. A key element of a sustainable strategy would be to readjust the composition of spending by increasing the share of poverty-alleviating spending throughout the fiscal adjustment. Adjusting the wage bill alone will not be sufficient to meet the fiscal consolidation requirements. Such savings could either come from structural reforms (e.g., liberalizing public transport services to lower the transfer to the public monopoly held by the Central Transport Agency (CTA)), or else reducing spending that has either no significant impact on poverty reduction and/or private sector development. In this respect, there is scope to reduce sovereign and security spending in order to create the fiscal space for higher social expenditure (Table 12).

Finally, while a sustained effort has been made on public investment, projects are still not subject to cost-benefit analyses. Steps could be taken to gradually introduce those, targeting the biggest projects first. Additionally, the cost-benefit analysis for these projects could be made public, to increase transparency and accountability. In turn, higher transparency could facilitate political and social consensus on the fiscal adjustment by demonstrating how fiscal space is used to reduce poverty.

B. Timing of the Adjustment and Its Impact on Growth and External Balances

A recession is expected in 2012, partly because of constraints faced by private companies (arrears, lack of financing, high cost of doing business), but also because of the negative impact of fiscal imbalances. Implementing a fiscal

adjustment, by contributing to the contraction of demand, would also have a negative impact on growth. Fiscal adjustment costs could nevertheless be mitigated with recovered credibility and private sector development (Figure 9). By restoring confidence in Swaziland's external stability, the fiscal adjustment could help resume financing flows (domestically from banks, internationally from foreign investors), thus boosting private sector development and growth. The fiscal contraction, which would come largely from expenditure cuts, is calibrated according to the findings of Basdevant and others (2011). The negative impact is expected to last for about two years, while the positive "crowding-in" of the private sector would gradually gain in effectiveness over the medium term.

The short-term positive impact would partly come from "jump-starting" private sector activity by clearing arrears, but also from liberalizing state-dominated markets. Medium-term growth prospects remain favorable, as Swaziland benefits from various comparative advantages (mining, agriculture) and would also benefit from further regional integration within SACU (Mongardini and others, 2012).

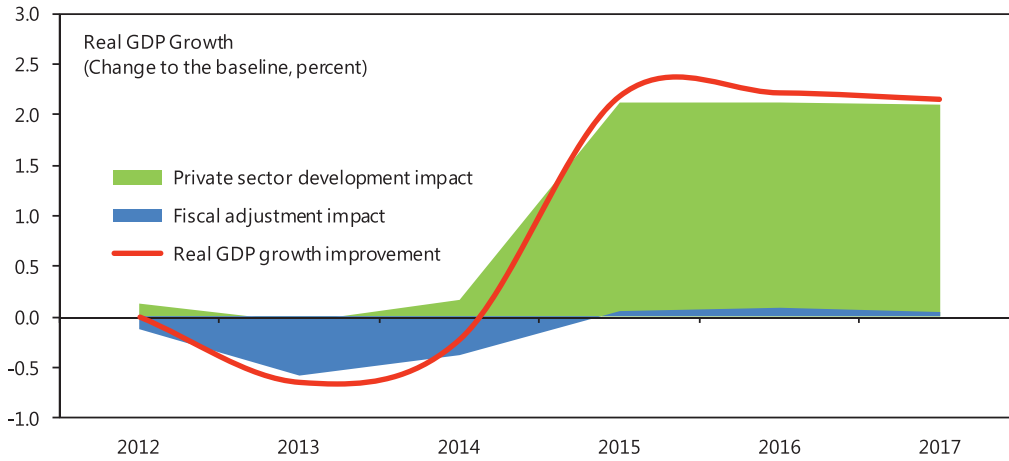
Reflecting the impact on growth, the current account balance would improve with the fiscal adjustment.²⁰ The short-term positive impact would, however, be mitigated by the need for private sector imports to develop productive capacity. Improvements over the medium term would be related partly to private sector development and partly to greater integration to the global economy. The expected improvement in the current account balance would, overall, be relatively modest during the first two years, before picking up at about 1.5 percent of GDP. Thus, with the projected decline in SACU transfers of about 7–8 percent of GDP, financial inflows would need to be quite significant. With a renewed confidence in Swaziland's economy, external financing would be expected to increase, thus covering the external financing requirement. It would be covered largely by budget support and exceptional financing in the short term, before other net inflows get reversed, under the impulse of foreign private investment.

Overall, the UFAR could adopt an explicit objective of preserving external sustainability, by setting a floor on the gross official reserves of the central bank (the recommended level for Swaziland is about 17–19 percent of GDP). While the target would probably be achieved over the medium term, a significant step would be needed in 2013/14, especially in the light of existing pressures on the financial account. Implementing the fiscal adjustment would actually bring two different ways to help restore external sustainability: first by facilitating the adjustment of the current account, and second by providing framework that could unleash budget support. The combined effect of the two would greatly help restore quickly a viable level of international reserves.

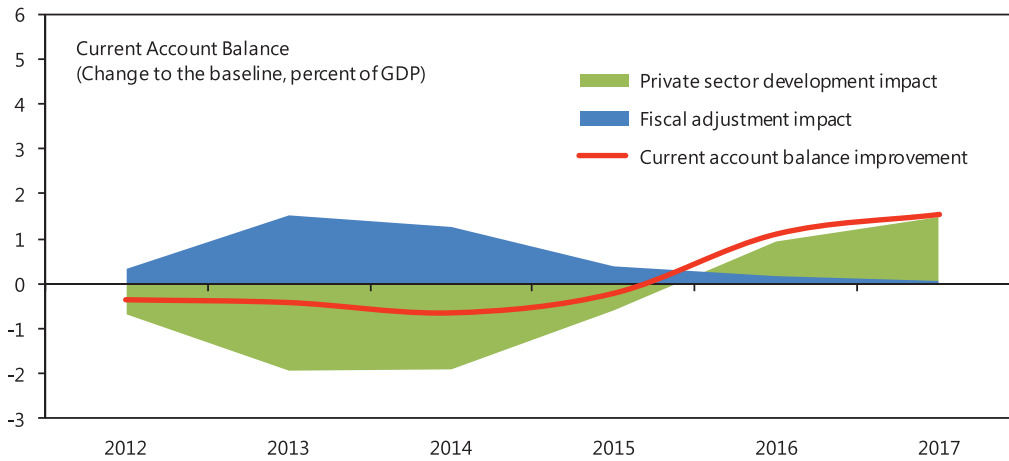
²⁰ The response of the current account balance follows the calibration done in Basdevant and others, 2011.

Figure 9. Impact of the Fiscal Adjustment on Growth and External Balances

The impact on growth of the fiscal adjustment would be mitigated by private sector development.



The current account balance would improve as growth recovers.



External financing would help preserve external stability.

	2012	2013	2014	2015	2016	2017
	(Percent of GDP, unless otherwise indicated)					
Financing requirement ¹	2.0	-5.4	-5.8	-5.2	-4.5	-5.4
Current account	0.6	2.2	-2.8	-3.9	-4.0	-4.0
Change in reserves (–=increase) ¹	1.5	-7.6	-2.9	-1.3	-0.5	-1.3
Net financing	-2.0	5.4	5.8	5.2	4.5	5.4
Investment	-4.0	0.1	1.9	2.1	3.5	5.2
Budget support	2.0	5.2	3.8	3.0	0.9	0.1
Memorandum item:						
Reserves (months of imports)	2.4	3.8	4.4	4.5	4.5	4.5

¹ The financing requirement is based on an adjustment of the current account, coupled with a replenishment of reserves.

Source: Swaziland authorities; and IMF staff estimates and projections.

Conclusions

Overall, the immediate risks have shifted somewhat during the last 12 months, from a pure fiscal crisis, to more pressing vulnerabilities on Swaziland's external position and financial sector. However, the problems remain deeply rooted in fiscal imbalances and a high cost of doing business. The policy options will involve a wide range of measures, which would have to address not only fiscal imbalances, but also poverty and inequalities, business climate, liberalization of markets and privatization, and reversing external flows to restore external stability. In this endeavor, Swaziland would need to secure a broad political and social consensus on reforms and make continued progress on strengthening the quality of its institutions. In particular care could be given to the following areas:

- Swaziland is often perceived, domestically, as having a “social” fracture, where resources are not allocated according to a clear objective of alleviating poverty. Reducing the social fracture is not just about reforms, but also their dissemination and eventually endorsement by the whole population. Thus, efforts at improving transparency and accountability would be as essential as implementing all the required reforms. In addition, all the sacrifices that may be needed by Swaziland to restore fiscal and external sustainability would need to be shared in a fair manner. From that perspective, the share of social spending would have to increase, to protect the most vulnerable people.
- The adjustment will also have to go hand in hand with reforms aimed at improving the quality of institutions. In particular, efforts to strengthen financial sector surveillance and the budget process are of paramount importance. Swaziland could also gain from adding to the adjustment a medium- to long-term perspective, by defining fiscal rules to reduce the risk of reoccurrence of fiscal crises (Basdevant, 2012).

References

- Allen, M., C. Rosenberg, C. Keller, B. Setser, and N. Roubini, 2002, "A Balance Sheet Approach of Financial Crisis," IMF Working Paper 02/210 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2002/wp02210.pdf>
- Asonuma, T., X. Debrun, and P. Masson, 2012, "Welfare Effects of Monetary Integration: the Common Monetary Area and Beyond" in *Building a Common Future in Southern Africa: Challenges and Opportunities*, J. Mongardini, ed. (Washington: International Monetary Fund). Available via the Internet: www.imf.org/external/pubs/ft/wp/2012/wp12136.pdf
- Aydin, B., 2010, "Exchange Rate Assessment for Sub-Saharan Economies," IMF Working Paper, No. 10/162 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2010/wp10162.pdf>
- Basdevant, O., 2012, "Fiscal Policies and Rules in the Face of Revenue Volatility Within Southern Africa Customs Union Countries (SACU)" IMF Working Paper, No. 12/93 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2012/wp1293.pdf>
- Basdevant, O., C. Baba, and B. Mircheva, 2011, "Macroeconomic Vulnerabilities Stemming from the Global Economic Crisis: The Case of Swaziland" African Department Paper #11/7 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/dp/2011/afr1107.pdf>
- Basdevant, O., D. Benicio, B. Mircheva, J. Mongardini, G. Verdier, S. Yang, and L.-F. Zanna, 2011, "The Design of Fiscal Adjustment Strategies in Botswana, Lesotho, Namibia, and Swaziland," IMF Working Paper WP/11/266 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2011/wp11266.pdf>
- Caballero, R., and S. Panageas, 2004, "Contingent Reserves Management: An Applied Framework," NBER Working Paper No. 10786 (Cambridge: Mass.: National Bureau for Economic Research).
- Canales-Kriljenko, J., 2011, "South Africa: Macro Policy Mix and its Effects on Growth and the Real Exchange Rate: Empirical Evidence and GIMF Simulations," IMF African Department Paper #11/4

- (Washington: International Monetary Fund). Available via the Internet: www.imf.org/external/pubs/ft/dp/2011/afr1104.pdf
- Cuevas, A., L. Engstrom, V. Kramarenko, and G. Verdier, 2012, “SACU Revenue Volatility: Roots and Options for Mitigation” in IMF, 2010, *The Economics of Regional Integration: Current and Future Challenges for Southern Africa* (Washington: International Monetary Fund).
- Garcia, P., and C. Soto, 2004, “Large Holdings of International Reserves: Are They Worth It?” Central Bank of Chile Working Papers No. 299, December.
- IMF, 2011a, “Kingdom of Swaziland: 2010 Article IV Consultation,” IMF Country Report 11/25. Available via the Internet: <http://www.imf.org/external/pubs/ft/scr/2011/cr1125.pdf>
- IMF, 2011b, “Assessing Reserve Adequacy,” IMF Policy Paper (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/np/pp/eng/2011/021411b.pdf>
- IMF, 2012a, *Regional Economic Outlook: Sub-Saharan Africa*, [month?] (Washington). Available via the Internet: <http://www.imf.org/external/pubs/ft/reo/2012/afr/eng/sreo1012.pdf>
- IMF, 2012b, *World Economic Outlook*, IMF World Economic and Financial Survey. Available via the Internet: <http://www.imf.org/external/pubs/ft/weo/2012/01/pdf/text.pdf>
- IMF, 2012c, “South Africa: 2012 Article IV Consultation Report,” Forthcoming IMF Country Report.
- IMF, 2012d, *World Economic Outlook Update: New Setbacks, Further Policy Action Needed*, IMF World Economic and Financial Survey. Available via the Internet: <http://www.imf.org/external/pubs/ft/weo/2012/update/02/pdf/0712.pdf>
- IMF, 2012e, “Kingdom of Swaziland: Staff Report for the 2011 Article IV Consultation” IMF Country Report #12/37. Available via the Internet: <http://www.imf.org/external/pubs/ft/scr/2012/cr1237.pdf>
- Isard, P., and H., Faruquee, 1998, “Exchange Rate Assessment: Extensions of the Macroeconomic Balance Approach,” IMF Occasional Paper, No. 167 (Washington: International Monetary Fund).
- Jeanne, O., and R. Rancière, 2006, “The Optimal Level of Reserves for Emerging Markets: Formulas and Applications,” IMF Working Paper 06/229, (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2006/wp06229.pdf>
- Kumhof, M., D. Laxton, D. Muir, and S., Mursula, 2010, “The Global Integrated Monetary and Fiscal Model (GIMF)—Theoretical

- Structure,” IMF Working Paper #10/34 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2010/wp1034.pdf>
- Lee, J., G. Milesi-Ferretti, J. Ostry, A. Prati, and L. Ricci, 2008, “Exchange Rate Assessments: CGER Methodologies,” IMF Occasional Paper, No. 261 (Washington: International Monetary Fund).
- Manasse, P., N. Roubini, and A. Schimmler, 2003, “Predicting Sovereign Debt Crises,” IMF Working Paper 03/221 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2003/wp03221.pdf>
- Mathisen, J., and A. Pellechio, 2006, “Using the Balance Sheet Approach in Surveillance: Framework, Data Sources and Data Availability,” IMF Working Paper 06/100 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2006/wp06100.pdf>
- Mongardini, J., D. Benicio, T. Fontaine, G. Pastor, and G. Verdier, 2011, “In the Wake of the Global Economic Crisis: Adjusting to Lower Revenue of the Southern African Customs Union in Botswana, Lesotho, Namibia, and Swaziland,” IMF African Department Paper, 11/1 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/dp/2011/afr1101.pdf>.
- Mongardini, J., T. Asonuma, O. Basdevant, A. Cuevas, X. Debrun, L. Engstrom, I. Flores, V. Kramarenko, L. Leigh, P. Masson, and G. Verdier, forthcoming, *Building a Common Future in Southern Africa* (Washington: International Monetary Fund).
- Rosenberg, C., I. Halikias, B. House, C. Keller, J. Nystedt, A. Pitt, and B. Setser, 2005, “Debt-related Vulnerabilities and Financial Crises,” IMF Occasional Paper 240 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/External/Pubs/NFT/Op/240/op240.pdf>
- United Nations, 2012, “Rapid Assessment of the Impact of the Fiscal Crisis in Swaziland.” Available via the Internet: http://sz.one.un.org/files/Fiscal_Crisis_Swaziland.pdf
- Vitek, F., 2012, “Exchange Rate Assessment Tools for Advanced, Emerging, and Developing Economies,” mimeo (Washington: International Monetary Fund).
- Wang, J.-Y., I. Masha, K. Shirono, and L. Harris, 2007, “The Common Monetary Area in Southern Africa: Shocks, Adjustment, and Policy Challenges,” IMF Working Paper 07/184 (Washington: International Monetary Fund). Available via the Internet: <http://www.imf.org/external/pubs/ft/wp/2007/wp07158.pdf>

