Medium-Term Sustainability of Fiscal Policy in Lesotho

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Abstract

Since the global financial and economic crisis, fiscal sustainability has increasingly become a topical issue for all countries. This is of particular concern to Lesotho given the permanent drop in the countries revenue receipts from the Southern African Customs Revenue (SACU) Pool which finances close to fifty percent of the country’s recurrent budget. Given this situation, access to concessional and non-concessional resources from the donor community remain critical for fiscal sustainability in the short to medium-term and even beyond. The objective of this paper is to understand whether the current trends in Lesotho’s fiscal policy is sustainable in the short to medium-term and in the event of shocks to key fiscal drivers such as growth, interest rates and concessional financing. The projections of the primary deficit path lead to the conclusion that Lesotho’s fiscal policy is unsustainable in the short-run. Drastic fiscal adjustment measures are needed to put fiscal policy on a sustainable path in the medium-term and beyond. Sustainability improves with higher growth, donor willingness to provide concessional funds and lower cost of concessional as well as non-concessional funds. This underlines the importance of improving the investment environment which accommodates faster growth and mobilization of both concessional as well as non-concessional resources. While attainment of steady state primary balance would be preferred, this would require a lot of fiscal adjustment effort which may not rhyme well given Lesotho’s political sensitivities and extreme poverty levels. It is, however, possible to gradually move towards the steady state primary balance by improving expenditure efficiency and rationalization as well as eliminating unproductive spending in addition to intensive resource mobilization including widening the tax base. The sustainable primary balance path towards the steady state under various scenarios is well discussed in the paper. Additionally, the paper underlines the need to take stock of the expected future expenditures, in particular, those related to pension and contingent liabilities which might increase the fiscal sustainability risk if not fully included in the primary balance.

Keywords: Fiscal sustainability, access to concessional resources and growth
I. Introduction

This paper is designed to analyze the sustainability of Lesotho’s fiscal policy in the short to medium-term which includes the period covered by the vision 2020. The recent global economic recession and its impact on international trade poses significant challenges to small developing economies such as Lesotho, which are already grappling with a number of issues including poverty in their pursuit of sustainable development. The post crisis is clouded with uncertainties with regard to the future recovery in the Southern African Customs Union (SACU) receipts to pre-crisis levels. These receipts are dependent on the increased international trade between the SACU and the rest of the World, which was affected post crisis. SACU receipts are the main source of budgetary resources which finances close to 50% of the country’s recurrent budget and yet dropped by close to a half post crisis. In addition, the post crisis is clouded with uncertainties on the donors’ willingness to give not only concessional but also non-concessional resources-a vulnerable financing situation. In an open economy like Lesotho, a vulnerable public sector has potential damaging effect on the external sector. It can lead to a twin deficit problem (government budget and current account balance) which characterized developed, transition and developing economies including Lesotho in recent years. The combined effect of these would be to increase the demand for domestically available non-concessional resources (bonds) to finance the budget deficit which would raise domestic interest rates, appreciate the exchange rate, cause loss of competitiveness and worsen the current account balance.

In light of the increasing competition for more concessional resources in the period after the global economic crisis, to avoid the above situation, the country has to be a more attractive destination for donor resources in particular concessional funds. In this respect, future access to these funds will depend on creditor’s willingness to hold government assets in terms of debt, an aspect which was incorporated in the sustainable primary balance path defined by (Edwards and Vergara 2002) and which is adapted by this study. Additionally, given Lesotho’s vulnerability to external shocks during the last decade, growth which is a key determinant of fiscal sustainability fluctuated. In view of the above discussion, the objective of this paper is to understand whether the current trends in Lesotho’s fiscal policy is sustainable in the short to medium-term and in the event of shocks to key fiscal drivers such as growth, interest rates and concessional financing. A sustainable fiscal policy in this paper is defined as a sustainable primary balance to GDP path which is consistent with a sustainable public debt path of both types of debt. In turn, a sustainable public debt is defined as increases in each type of debt in tandem with the willingness of the national and international community to accumulate the government issued securities.

The question which this paper attempts to answer is whether or not the current course of fiscal policy in Lesotho can be sustained in the short to medium-term or adjustments in taxes or spending will be required to be sustainable. It also explores the question of how important is creditor’s willingness to accumulate government securities, growth rate of the economy, interest rates and inflation for fiscal sustainability. To arrive at fiscal sustainability, the government debt and fiscal profile would be firstly observed as well as the key drivers. In this context, section II provides the background information on Lesotho. Next, section III underpins the key literature which summarizes the conceptual review of fiscal sustainability framework along with the previous studies in order to arrive at the research method. Section IV describes the methodology, section V presents an empirical evaluation of the results of the study under alternative scenarios informed by the country’s historical trends in the key
II. Background Information on Lesotho

Fiscal sustainability has increasingly become an important topic for discussion in both developed and developing countries following the global economic and financial crises. The crisis which was sparked off by default on financial sector assets in the United States quickly transformed into an economic crisis when it was transmitted to the real sector of the economy during 2008. While the impact on developing countries such as Lesotho was not as pronounced due to their limited exposure to financial assets from United States and other developed countries, they continued to be affected by the secondly effects of these crises. In particular, Lesotho was affected through reduced demand for its exports due to the slump conditions in the affected trading partners.

In the context of countries that depend on exports of limited products namely textiles to the United States and Diamonds to Belgium, this was bound to inflict dampening effects on growth (figure1). In a similar context, import trade flows to the SACU region were affected, culminating into reduced trade receipts for the region.

These developments caused a substantial deterioration in Lesotho’s growth prospects coupled with worsening of a number of key economic and social indicators. As demonstrated in figure 1, robust recovery since 2006 was suddenly reversed in 2009 due to the global slump. Counter cyclical measures supported by fiscal stimulus were implemented to abate the aftermath of the global economic slump. This effort, however, was counteracted by the floods that affected the country in the early part of 2010. Consequently, growth dropped from 5.6 in 2010 to 4.3 percent in 2011. Government revenues continued to drop reflecting the global economic conditions. Customs receipts constitute the bulk of budgetary revenues (40 percent) and the global economic crises directly fueled the widening of the fiscal deficit through the international trade channel. Under a situation of constrained domestic revenues and international inflows, foreign and domestic financing of the deficit has become increasingly difficult for trade dependent economies like Lesotho. Lesotho has had to drawdown on its long accumulated net international reserves in order to cover the gap left by the drop in the SACU revenues at the risk of failing to maintain parity between the maloti and the rand.
The economic crisis has made the fiscal position deteriorate from a surplus to a deficit position in the post crisis. Lesotho’s main source of revenue continues to be Southern African Customs Union (SACU) which, in the post crisis period has experienced precipitous decline thereby limiting government’s fiscal space. Unfortunately, the government expenditure has not showed signs of significant adjustment to the new fiscal realities. While the surpluses generated from SACU revenue pool had in the past helped Lesotho to redeem non-concessional expensive loans and kept the debt to GDP ratio at lower levels, it also contributed to higher levels of expenditures, in particular higher wage bills (17 % of GDP, last ten years) which have proved difficult to reduce and this in part contributed to the worsening deficit (Figure 2).

![Figure 2: Lesotho Primary Balance and General Government Gross debt (%of GDP)](image)

Source: World Economic Outlook database

While Revenue to GDP ratio has declined, wages and salaries have been maintained at 15 percent of GDP-post crisis, comparable to levels when the economy was experiencing surpluses from SACU (2006-2008) and enjoying robust economic growth. Under constrained revenue situation and reduced donor financing, the country’s fiscal position may prove unsustainable in the short to medium-term and even beyond depending on the growth outlook and availability of budgetary resources, both external and domestic.

The economic outlook for Lesotho in the medium-term appears gloomy and clouded with uncertainties about the continued recovery of global demand for primary commodities (diamonds) and SACU revenues as well as stiff competition in the export market for textiles after the expiry of the third party clause on sourcing of inputs beyond 2015. In this respect, unless fiscal consolidation is intensified, expenditures might supersede government revenue for several years and new financing both foreign and domestic in the coming years will remain highly required to meet the expenditure needs. Depending on the rate of growth of the economy and the willingness of the donor community to provide concessional financing, Lesotho’s fiscal deficit might become unsustainable and thwart the previous efforts which had drastically reduced its debt to lower levels (below 40 % threshold). The same revelation has been emphasized by recent studies on selected HIPIC countries (Edward and Vergara, 2002; Armendariz and Andrade, 2007).
As shown in figure 3, Lesotho has displayed sustained effort towards external debt reduction from levels as high as 126 percent of GDP in 2001 to below 40 percent after 2008. This was a radical approach towards debt reduction which was facilitated by a clear policy on contraction of new debt and the appreciation of the Loti against the vehicle currencies for debt. This, however, was in addition to the proper use of surpluses from SACU revenue which facilitated the redeeming of expensive non-concessional external debts.

The joint World Bank and IMF 2010 debt sustainability assessment found Lesotho to be at a moderate risk of debt distress provided fiscal position returns to balance. However, since 2010, the country’s fiscal position has remained in deficits. The situation is compounded by the expenditure pressures occasioned by the rehabilitation and resettlement requirements after the floods in 2011. The joint 2012 World Bank and IMF analysis Debt ratios are projected to remain manageable over the medium-term as long as the fiscal position improves. The challenge is to find a sustainable primary balance path under varying growth and debt path determined by external global environment including the willingness of domestic and international community to supply financing resources.

In the post crisis period, Lesotho, like many other developing countries experienced deterioration in its current account as a percent of GDP from surpluses up to 2008 to deficits during 2010 and 2011. As shown in figure 3, the deterioration in the current account was mainly at the back of reduced exports receipts due to global demand contraction for the country’s key exports: diamonds (less than 1 % of exports) as well as textiles and apparels which constitute close to 70 % of Exports. The reduced current transfers predominated by SACU receipts also contributed to the deterioration in the current account. To a lesser extent, the successive decline in the factor income net from abroad contributed. They dropped from 27 % of GDP in 2009 to 22 % in 2011. Additionally, the recessionary environment in the neighbouring South Africa in the recent years somewhat affected the economy through retrenchment of the Basotho workers, in particular, miners. However, while the number of mine workers dropped from as high as 50,686 in 2008 to 41,427 in 2011, the remittances increased at a decreasing rate annually up to 2010 before increasing again in 2011. The poor performance of exports as reflected by the drop of about 4.4 percent of GDP between 2008 and 2011 echoed the concomitant decline in the export price
and volumes while the drop in imports absorption by close to 9.0 percent was due to reduced import
capacity occasioned by the successive drop in the gross national income growth. Over the same period
(2008-2011), receipts from SACU dropped by 19.2 percent of GDP reducing the wiggle room for the
government.

Domestic debt is an integral part of fiscal policy since it is a consequence of the government operated
deficit. The extent of domestic financing option largely depends on the cost involved in terms of the
interest rates. This is in addition to monetary and fiscal objectives of government. As shown in figure 4,
domestic debt has substantially dropped over time. For the period (2002-2010), public domestic debt
dropped to an annual average of 5 percent of GDP from 13 percent, largely, reflecting commitment to
debt management and the servicing of loans supported by the past surplus from the SACU revenue
pool.

However, the structure of domestic debt has remained the same predominated by short-term and then
long-term bank borrowing. It is, however, interesting to note that during 2008-2010; the period when
the financial crisis intensified, there was a systematic drop in domestic financing across instruments
(short-term, long-term and suppliers credit). However, since 2010, there are seemed to be a systematic
shift away from long-term borrowing to suppliers’ credit.

As demonstrated in figure 5, Lesotho’s external debt as a percent of GDP has evolved over time,
dropping from an annual average of 60; 2002-2004 to 40; 2008-2010. The latter, was the period
affected by the global financial and economic crises. There was a steady drop in the external debt stock
as a percentage of GDP overtime, in part echoing the concerted effort to eliminate non-concessional
loans but largely reflecting the difficult in accessing new financing from the international donor
community, in particular after the global economic crises which intensified the scarcity of financing
resources. The stock of suppliers’ credit continued to grow during the crises as the bilateral and multi-
lateral debt stocks showed significant decline. This trend might continue as external financing prove difficult to access.

While Lesotho is classified as a low debt country, however, in the aftermath of the global financial and economic crisis, the economic outlook remains bleak. The basic debt ratios for Lesotho still showed a moderate and safer position, however, depending on the growth scenario and the willingness of the international as well as national community to hold Lesotho’s debt, the sustainability of Lesotho’s primary deficit in the medium to long term remain a concern. These concerns are also founded on increasing trends in new financing sought by both HIPIC and Non-HIPIC countries from international financial institutions including the IMF in the aftermath of the crisis. These included both balance of payments support and general budget support.

III. Literature Review

This section explores the theoretical background of fiscal sustainability in order to provide a good foundation for the model to be used in the paper. The debate on sustainability of fiscal policy continues to be an important one and it remains unresolved in terms of definition, choice of variables and methodology. Fiscal and debt sustainability are explicity bound because of the implications each of them has on the other. Debt financing of government deficit is justified because of the failure of the private sector to fully employ the available resources to match the aggregate demand for them, which is a typical Keynesian argument. Under this argument, government is allowed to borrow to bridge its fiscal gap as long as private investment is insufficient to absorb the available resources (Domar 1944). Further, Domar demonstrated that fears of higher taxes to finance debt and their detrimental effects could be arrayed by a constant overall deficit to GDP which would ensure convergence of debt to GDP ratio and interest payments to GDP at finite values. In this respect, constancy of debt to GDP ratio provided one of the important definitions of fiscal sustainability. Another important contribution to the ongoing debate came from Blanchard (1990) who proposed two necessary conditions for fiscal sustainability. The first condition requires that the ratio of debt to GNP eventually converges back to initial level while the second one requires that the present discounted
value of primary deficit to GNP is equal to the negative of the current level of debt to GNP. This was followed by debates on whether the two conditions were the same as argued by Blanchard (1990). The conclusion, which was accepted by the author, was that the two were different. The second condition is synonymous with the undiscounted value of debt ratio converging to its initial value or to any finite value or diverging to any other value at a rate lower compared to the difference between the growth rate of GDP and the interest rate, which are the dynamic factors in such a partial equilibrium model (Buti and Franco, 2005). In this respect, they argued that while the second condition implies the first condition, it is a necessary but not a sufficient condition for the latter.

Basing on the work of Blanchard 1990, in particular, the second condition for sustainability, various studies have been conducted to test the inter-temporal budget constraint which has clear link to the Ricardian equivalence. Among these studies include Hamilton and Flavin (1986) who came to a conclusion that by operating a deficit in one period, the government is indirectly making a commitment to operate offsetting surpluses in the future period. In the same category are studies by Aschauer 1985 and Seater and Mariano 1985. In a way, these are linked to (Domar, 1944) argument already alluded to which is based on perfect foresight where agents are assumed to be ready to hold government debt all times.

However, some researchers including Ferguson and Kotlikoff (2003) have argued that agents’ willingness to hold a government paper is not without hiking the interest costs. Once the agents know that the government fiscal policy is on an unsustainable path, they will raise the interest premiums on government securities in order to compensate them from a default risk and high inflation. This argument is also cognizant of the fact that in a modern money regime, rates on securities usually follow a monetary policy stance in which case the interest rates can be higher than the growth rate of GDP. In this case where the monetary policy is active, it has a strong influence on whether a given fiscal path is sustainable or not. In this respect, it is important to note that while some studies have argued that it only involuntary unemployment and excessive unutilized capacities that the nation cannot “afford” (Arestis and Sawyer, 2003), equally a nation cannot “afford” high-interest-rate monetary policies when its objective is to achieve full employment policy with non-inflationary fiscal deficits. This in part explains why the recent models of fiscal sustainability have included a base money and domestic interest rate variable (Edward and Vergara, 2002; Armendariz and Andrade, 2007).

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2 Equation for the first condition is \( \lim_{n \to \infty} b^n \exp\left[-(r - \gamma)g\right] = 0 \) as \( n \) tends to infinity. Where \( r \) is real interest rate and \( \gamma \) is real growth rate of GNP. This implies that as the debt/GNP ratio \( b \) tends to zero, the discounted value of debt tends to zero and for the second condition is \( \lim_{n \to \infty} d^n \exp\left[-(r - \gamma)\delta \right] = 0 \). Where \( d \) is the primary deficit to GNP ratio. This implies that for fiscal policy to be sustainable, the primary deficit to GNP must be equal to the negative of the current debt to GNP ratio. In other words, government with an outstanding debt must sooner or later run a primary budget surplus for fiscal policy to be sustainable.

3 It is an economic theory which suggests that when a government tries to stimulate demand by increasing debt-financed government spending, demand remains unchanged. This is because the public will save its excess money in order to pay for future tax increases that will be initiated to pay off the debt. This Ricardian equivalence was extended by Robert Baro.

4 While a deficit is financed through borrowing from creditors, future surpluses might mean expenditure adjustments or generating more revenues through tax or other measures. This is also in line with recent studies by Cecchetti, S.G, Mohanty, M.S and Zampolli, F(2010).

5 Baro(1984) tested the budget constraint together with permanent income hypothesis, Hamiltonon and Flavin (1986) tested inter-temporal budget constraint. Aschauer (1985) and Seater and Mariano (1985) tested the hypothesis that governments’ receipts must equal expenditures in present-value terms jointly with a permanent income hypothesis.

6 This Ponzi type of argument may not hold all the times. In the context of developing countries with weak economic institutions, fiscal risks might limit fiscal sustainability. Fiscal risks can potentially reduce the willingness of the economic agents to hold government securities which will in turn reduce economic growth (Barnhill and Kopits, 2003).
In the literature, there are also views which are linked to “sound finance” which postulates that sustainability is to do with good housekeeping (Blanchard et al. 1990). This study argues that it is a judgment on whether based on the policy currently in books, a government is headed towards excessive debt accumulation.

In literature, three methodologies for assessing and testing fiscal sustainability are identifiable. These include stationarity test or cointegration test based on the inter-temporal budget constraint model, the reaction function model and primary gap and tax gap indicators.

The current study draws more on the literature and definition of fiscal sustainability which is in tandem with a stationary or constant debt to GDP ratio and the overall demand for government securities (Edward and Vergara 2002). This is also in line with the inter-temporal budget constraint literature. Armendariz and Andrade (2007) applied a similar model to assess debt sustainability in Guyana and the results indicated that Guyana would have to make a stronger fiscal effort to achieve debt sustainability if access to concessional funds is constrained. It was also highlighted that “most debt sustainability analyses do not provide a more explicit or direct channel to assess and quantify the fiscal impact of a decline in the availability of future subsidized funds”. This shortcoming was however, addressed in the model by (Edward and Vergara 2002). Additionally, this model takes due cognizance of the importance and role of domestic debt which is issued on non-concessional terms on fiscal sustainability. This is of particular concern and relevance in countries like Lesotho where domestic resources have the potential to significantly contribute towards debt accumulation in face of dwindling concessional resources overtime.

Hence, the approach in this paper is to compute public sector primary balance which is compatible with sustainable and stable debt to GDP path. Following (Edward and Vergara 2002, it develops a model to capture some factors determining fiscal sustainability. Like most recent studies in these areas (Edward and Vergara, 2002; Armendariz and Andrade, 2007; Armendariz and Andrade 2007), this study uses both domestic and foreign debt to assess fiscal sustainability. While cognizant of the existence of the backward-looking approaches to fiscal sustainability, the current study adapts a forward-looking approach to assess fiscal sustainability for Lesotho.

IV. Methodology

This section outlines the methodology used in the study including the sensitivity analysis to be to assess fiscal sustainability for Lesotho. The study recognizes the debt sustainability often conducted by the Joint IMF and World Bank for most of the countries. The Joint IMF and World Bank analysis is based on the framework for low-income countries which takes into account indicative thresholds for debt burden indicators determined by the quality of the country’s policies and institutions. However, due to its complexity and demand in terms of data for conducting formal tests of sustainability, the current study adopts the definition and approach to fiscal sustainability used by Edwards and Vergara (2002) as an alternative to the approach by the Joint World Bank and IMF approach. The major gain in this approach is its simplicity and data economy and yet powerful in its forecast of the both the desired primary balance and the debt path. As already alluded the model adapted in this study avoids the shortcomings of other fiscal sustainability models by incorporating both domestic and foreign debt to assess fiscal sustainability. The analytical framework followed is based on the model developed by

7 The emphasis under this approach is the mean-reverting debt-GDP ratio which signals positive response of the primary surpluses to the debt-GDP ratio. Others use unit root to detect this tendency. This will be implied by the relationship between the primary balance and the debt-GDP ratio. Mean reverting trend or no unit root will signal fiscal sustainability.
(Edwards and Vergara, 2002) in relation to post HIPIC countries with limited concessional financing expected overtime. The relatively low levels of debt for Lesotho do not mean that debt is not a problem for such a developing and open economy country. On the contrary, they mean that debt can be a much bigger problem for such countries than for the developed countries. Japan has a public debt ratio to GDP that is well above 150 percent and yet there is little concern about the solvency of Japan. At the same time, developing countries often face debt crises with debt levels which are as low as 30 per cent of GDP. The adapted model is premised on the following assumptions:

(a) Willingness of the international donor community to accumulate concessional debt at a rate of \( \theta \) and \( 0 \leq \theta < 1 \).
(b) Willingness of the national community to accumulate non-concessional debt at a rate of \( B \).
(c) In the long run, the rate of accumulation is bounded.
(d) All Debt is foreign currency denominated and no need for debt valuation adjustments.
(e) In the baseline scenario, domestic rate of inflation is not changed and income elasticity of money demand is unity.

The model specification starts with the following public debt equation.

\[
\Delta D_t = \{ r^C_{t} D_{C,t-1} + r^D_{t} D_{D,t-1} \} + pbt - \Delta B_t \tag{1}
\]

Where \( t \) is a time variable while \( r^C_t \) and \( r^D_t \) are nominal interest rates on concessional and domestic debt (non-concessional) respectively. \( pbt \) is the primary balance to GDP and \( \Delta B_t \) is the change in the monetary base which corresponds to seignorage. The actual magnitude of seignorage will depend on the rate of domestic inflation, as well as on the ratio of the monetary base to nominal GDP. Denoting the real rate of GDP growth by \( g \), and the rate of dollar inflation by \( \pi^* \), these constraints may be written as:

\[
\theta \leq (g + \pi^*) ; \beta \leq (g + \pi^*) \tag{2}
\]

From equation (1), and using the sustainable rates of growth (\( \theta \) for concessional and \( \beta \) for domestic debt), a dynamic behavior equation of the sustainable primary balance to GDP ratio is obtained. A sustainable primary balance to GDP ratio at any period of time \( t \) has to be consistent with the aggregate debt to GDP ratio being on a sustainable path. In the dynamic primary balance behavior equation below, a positive number denotes a primary deficit.

\[
\left( \frac{p_b}{Y_t} \right) = \left\{ \left[ \theta - r^C_t \right] \left( D_{C,0} / Y_0 \right) e^{(\theta - g - \pi^*) (t-1)} + \left[ \beta - r^D_t \right] \left( D_{D,0} / Y_0 \right) e^{(\beta - g - \pi^*) (t-1)} \right\} \left[ \frac{1}{1 + (g + \pi^*)} \right] + (g + \pi^*) \left( \frac{B_0}{Y_0} \right) \tag{3}
\]

Where \( (D_{C,0} / Y_0) \) is the initial ratio of the face value of concessional debt to GDP and \( (D_{D,0} / Y_0) \) is the initial domestic debt to GDP ratio. \( e \) is a base raised to its exponents, \( \pi \) is the (target) rate of domestic inflation and \( (B_0 / Y_0) \) is the initial ratio of base money to GDP. In equation (3), the initial debt to GDP ratios \( (D_{C,0} / Y_0) \) and \( (D_{D,0} / Y_0) \) should be interpreted as the ratios in the starting year.

According to equation (3), the dynamic path for the sustainable primary balance depends on variables comprising nominal interest rates on both types of debt, the rates of domestic and foreign inflation, the rate of growth of real GDP, and the sustainable rates of growth of both types of debt (\( \theta \) and \( \beta \)). In the next section, assumptions on the availability of concessional financing as well as the rate of growth of GDP and their effect on sustainability of the primary balance are discussed. The paper investigates the
role of growth on sustainability using alternative growth rates ranging from 0 to 7 percent per annum. In the past decade, growth has fluctuated between 2 to 5% which are included in the simulation. Also included are growth rates of 0 to 1 and 6 to 7 at the extreme should the economy not reflect its historical growth rates in the past decade. This stress tests the government and IMF growth assumptions in the medium-term and their implications on sustainability of the primary balance.

The paper is largely based on macroeconomic data of selected parameters of the fiscal sustainability model alluded to in the analytical framework. A summary description of the data is elucidated in the table 1 below.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Assumed value</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Concessional debt to GDP ratio</td>
<td>$(DC_0/Y_0)$</td>
<td>30.4% (96 percent of external debt assumed concessional).</td>
<td>IMF, Article IV consultation; Lesotho and World Economic outlook.</td>
</tr>
<tr>
<td>Initial domestic debt to GDP</td>
<td>DD_0/Y_0</td>
<td>4.8%</td>
<td>From different official documents (difference between).</td>
</tr>
<tr>
<td>Rate of accumulation of concessional debt</td>
<td>$\theta$</td>
<td>Different assumptions depending on the scenario under consideration.</td>
<td></td>
</tr>
<tr>
<td>Rate of accumulation of domestic debt</td>
<td>$\beta$</td>
<td>$(g + \pi^*)$</td>
<td>Assumes that the initial ratio is maintained</td>
</tr>
<tr>
<td>Rate of growth of nominal GDP in US dollars</td>
<td>$(g + \pi^*)$</td>
<td>Alternative values of real GDP growth (0-7 percent) are assumed. The rate of US inflation is assumed to be 2.5 percent</td>
<td>Growth assumptions (0-7 percent)</td>
</tr>
<tr>
<td>Interest rate on concessional funds</td>
<td>$r^c$</td>
<td>2.3%</td>
<td>Derived from historical (nominal effective interest rates) average for the past four years. Derived from public debt data from Lesotho Authorities.</td>
</tr>
<tr>
<td>Interest rate on commercial funds</td>
<td>$r^d$</td>
<td>8.9%</td>
<td>Taken from historical (nominal effective) average for the past four years. Derived from public debt data from Lesotho Authorities.</td>
</tr>
<tr>
<td>Monetary base to GDP</td>
<td>$(B_0/Y_0)$</td>
<td>3.4%</td>
<td>Computed as CIC to GDP ratio from Central Bank Data (several reports)</td>
</tr>
<tr>
<td>Domestic Rate of</td>
<td></td>
<td>Average historical (past four years)</td>
<td></td>
</tr>
</tbody>
</table>
V. Empirical Evaluation

1. Required Primary Balance Path

The presentation and analysis of the results is based on three scenarios. Scenario I, assumes that the nominal value of concessional debt is maintained constant overtime and no net funds (in nominal dollars) are provided. Scenario II, assumes that the donor community is willing to maintain the real dollar value of the concessional debt at its initial level while in Scenario III, the international community is willing to increase concessional funds in real terms. The required primary balance can be positive or negative and in this paper a positive balance is a deficit and a negative is a surplus. In the figures for the sustainable primary balance, the more negative the number, the more the fiscal adjustment effort required. Similarly, steady state primary balance can assume a negative or positive value. The choice of growth rate scenarios of 2-5 were based on the historically observed levels in the last decade but to further stress the model, growth rates of 0-1 and 6-7 were included to take care of the possibility and impact of any negative and positive shock at the extreme.

The results shown in figure 6 reveal that in all scenarios (I, II and III), the sustainable primary deficit to GDP ratio (which excludes interest payment) is sensitive to the GDP growth rate. A higher GDP growth rate reduces the required fiscal adjustment effort towards a sustainable primary deficit and the steady state. For example, moving from figure 6a to 6h, GDP growth increases from zero percent to 7 percent and for a more fiscally restrictive scenario of declining concessional funding (scenario I), the sustainable primary balance shifts from a required surplus of 0.8 percent to 0.2 percent in 2010. In a more optimistic scenario of increasing concessional funding in real terms (scenario III), sustainable primary balance increases from 0.0 percent to a deficit of 1.1 percent of GDP in 2010. Similarly, with a moderate scenario where the donors maintain the real dollar value of concessional funding at initial level (scenario II), the sustainable primary balance increases from 0.0 percent to a deficit of 0.6 percent as the GDP growth shifts from zero to 7 percent per annum. This observation is supported by the fact that at a given real interest, once growth rate of GDP is lower, the country has to maintain a more restrictive fiscal position in order to remain sustainable (see figure 6a: zero growth rate). At higher growth rate, however, this condition is continuously violated and the sustainable primary balance required is eased (less restrictive), hence, the country can afford to run a deficit and remain sustainable (see figure 6b-6h).

How sustainable is Lesotho’s fiscal policy in the short to medium-term? Given Lesotho’s primary deficit of about 4.5 percent of GDP in 2010 and 9 percent in 2011, it is clear from figure 6a through 6h that this is far away from the sustainable primary deficit in all scenarios and hence the country’s fiscal policy appears unsustainable. In the medium-term, given the current fiscal position and policies, a lot of fiscal adjustment effort would be required to synchronize with the sustainable fiscal adjustment path in all scenarios and under all considered growth rates (Figure 6a-6h). For example, assuming the growth rate of 4.5 percent (IMF projected average growth, 2011-2016), under scenario I: declining concessional funds, the country would have to run a sustainable primary surplus of 0.23 percent of GDP during

| Inflation | π | 6.7 percent | years), data from Lesotho Authorities. |

\[\text{If the rate of growth of nominal GDP in dollars is low, relative to the interest rate on domestic debt, it is most likely that the country will need to run a primary surplus in the long run. However, this will depend on seignorage, captured by base money to GDP in this paper.} \]
2012, decreasing gradually until it reaches a deficit of 0.19 percent in the 2030. In this case, the required fiscal consolidation as percent of GDP would be 4.7 in 2012 and 4.3 in 2030, a lot of fiscal effort. Beyond this, the sustainable primary deficit would increase and the required adjustment successively decreases until; it gradually stabilizes at a steady state primary deficit of 0.55 percent of GDP.

In the scenario II, under the growth rate of 4.5 percent per annum, sustainable fiscal policy would require that the country runs a sustainable deficit of 0.35 percent in 2010 and 2012 increasing gradually until it reaches 0.36 in 2030. In this case, given the 2010 primary deficit position of 4.5 percent of GDP, Lesotho would have to adjust its deficit as a percent of GDP by 4.1 in 2010 and 2012. In 2030, the primary deficit would have to be adjusted by 4.2 percent of GDP. Beyond this, the trend continues until a stable steady state sustainable primary deficit of 0.55 is attained. Again this is a lot of fiscal adjustment which requires strong commitment from the authorities.

In a similar vein, given the fiscal position of 4.5 percent of GDP and with growth rate of 4.5 percent annually, scenario III, which is less restrictive, would require fiscal adjustment of 3.5 percent of GDP in 2010 and 2012 as well. The required fiscal adjustment, however, will increase to 3.8 percent of GDP in 2030. Beyond this, more adjustment would be required until a stable steady state primary deficit of 0.55 percent of GDP is attained.

In all scenarios, the same steady state sustainable primary balance is reported under each growth rate. This is explained by having the steady state level of concessional debt equal to zero in all scenarios.
2. Preferred Scenario
Amongst the three scenarios, scenario one which assumes that the nominal value of concessional debt is maintained constant overtime and no net funds (in nominal dollar terms) are provided appears the most realistic for various reasons. The joint IMF and World Bank DSA (2010) projected grant equivalent financing to drop overtime from 31.6 percent in 2010 to below 15 percent (2011-2015). While the donors are willing to provide some concessional funds, these are meant to revamp the economy from the damage caused by the floods in 2010. In particular, most of the concessional financing are expected from the IMF under a three year Extended Credit Facility arrangement and augmentation of access\(^{10}\). This will also include concessional resources from the African Development Bank\(^{11}\). The IMF augmentation is meant to reduce pressure on the fiscal resources of government in order to protect the country’s reserve position. Protection of reserves will help to maintain the peg between the Loti and the Rand. This might not constitute a significant increase in concessional resources in real terms. Additionally, the projection of the sustainable primary deficit in scenarios I, is closer to the projections of the IMF for 2012-2031 for individual years and average (Figure 7). In view of this, the subsequent stress tests and discussions in sections 5.3 are based on scenario I as the baseline against alternative specifications of the parameters assumed constant; (inflation, domestic interest rate and base money).

\(^{10}\) SDR 41.9 million approved by the Board of Directors on June 2, 2010 and with augmentation this will increase to UA 50.6 million (US$ 77.84 million)

\(^{11}\) African Development Bank planned to extend about UA 15 million during the ADF12 Cycle.
3. Alternative Assumptions and Effect on Sustainability

Stress tests on the key results were conducted against the alternative assumptions of some of the parameters of the model in order to identify the key aspects that need to be watched by the authorities over the medium-term. Tests comprised lower cost of non-concessional financing, lower cost of concessional debt and higher base money to GDP ratio. As demonstrated in figure 8, the higher base money, lower cost of both concessional and non-concessional financing at 2010 levels (tend to be less restrictive on the sustainable primary deficit (improve the headroom for accommodating a much larger primary deficit) but still requires considerable fiscal adjustment for Lesotho’s fiscal policy to become sustainable given the initial primary deficit of 4.5 percent of GDP. At the extreme, if there is a rise in the cost of both concessional (3.0 percent) and non-concessional debt (9.6 percent) to their historical average for the past ten years (2000-2010), the headroom for accommodating a higher sustainable deficit will be significantly reduced, calling for more restrictive fiscal stance to remain on a sustainable fiscal path (figure 8).

4. Public Concessional Debt Path

This section investigates how the willingness of the donors to hold Lesotho’s debt will affect the concessional debt path towards the steady state. In order to provide answers to this question, the study has considered three scenarios already alluded to in the previous sections. Scenario I, assumes that the nominal value of concessional debt is maintained constant overtime and no net funds (in nominal dollars) are provided. Scenario II, assumes that the donor community is willing to maintain the real
dollar value of the concessional debt at its initial level while Scenario III the international community is willing to increase concessional funds in real terms. The results are shown in figure 9 below.
As demonstrated in this Figure 9, the debt path towards the steady state varies considerably depending on the target growth rate and the scenario considered. In all scenarios, the higher the growth rate of the economy in real terms, the faster the rate at which the concessional debt will decline. Under the same growth target, the rate of decline of concessional debt towards the steady state will be fastest under scenario I and then scenario II. Scenario III yields the slowest rate of decline of concessional debt. For example, assuming growth rate of 5 percent per annum, it will take 10 years for the initial concessional resources of 30.4 percent of GDP to drop by half under scenario I, 15 years under scenario II and 28 years under scenario III. Consistent with this trend (Figure 9f), the country would have to maintain an average primary deficit as a percent of GDP of zero under scenario I, 0.37 under scenario II and 0.94 under scenario III. This means that with more access to concessional resources (scenario III), Lesotho would sacrifice less in terms of the fiscal adjustment effort given its initial primary deficit position of 4.5 percent of GDP. It will, however, sacrifice more under scenario II and I where access to donor resources is limited.

VI. Policy discussions, Conclusions and Recommendations

1. Policy Discussions

In view of the above analysis, it is clear that even if Lesotho is considered a low debt country, under various assumptions with regard to availability of concessional financing and growth, Lesotho's fiscal deficit appears unsustainable in the short to medium-term and even beyond. At the initial level of primary deficit of 4.5, a lot of fiscal effort would be required to bring the fiscal balance down to sustainable levels until it eventually stabilizes at steady state levels of 0.15 -0.7 percent of GDP depending on the growth target chosen. The current plan of government to reduce the fiscal deficits to 3 percent per annum as indicated in its new National Strategic Development Plan is still far below the required fiscal effort. Given the level of the required fiscal effort and the political implications of implementing the expenditure adjustment option, more concessional financing might be required in the medium-term for the fiscal policy in Lesotho to remain sustainable.

In the baseline scenario of declining concessional financing, Lesotho might need to operate annual average primary surplus of 0.2 percent for 2011-2016 and 0.1 percent for the period 2017-2031 in order to be sustainable. This assumes growth rate of 5 percent per annum but higher growth will improve sustainability. This could be the case if investment in the phase II of the Lesotho Highland Water Project and construction of the Metolong dam increases growth to 12 percent per annum. This would allow the country to operate an annual average primary deficit of 0.5 percent (2011-2016) and 0.8 percent (2017-2031). This revelation remains a critical challenge to the implementation of the new National Development Strategic Plan and the vision 2025 which would require more financial resources to realize the overarching objective of inclusive growth and poverty reduction. The government has been under the IMF Extended Credit Facility since 2010 and is implementing fiscal adjustments as mitigation to the impact of the drop in SACU revenues.

In view of the political sensitivities, in particular, occasioned by the coalition arrangements and extensive poverty, improving expenditure efficiency and rationalization as well as eliminating unproductive spending and intensive resource mobilization including widening the tax base will be critical for fiscal sustainability in the short to medium-term. Avoidance of budget leakages through implementation of standardized guidelines on procurement of goods and services will create the required savings and improve fiscal sustainability. However, even under these extreme scenarios,
there are concerns about the quality and durability of fiscal adjustments in the presence of inadequate accounting for pension and other contingent liabilities in the budget projection. When these expenditures are unveiled in the future and depending on their magnitude, they might crowd out the rest of the expenditures and make it difficult to attain the required adjustments. This underscores the need to take stock of these expected future expenditures, which might increase the fiscal sustainability risk if not fully included in the primary balance. In other words, underestimation of the primary balances carries the risk of increasing the required adjustment in the future. As indicated by Cecchetti et al (2010), failure to account for some of these costs including pension presents a number of countries with the prospect of enormous future costs that are not fully recognized in current budget projections.

Finally, growth enhancement through a more favourable investment climate also becomes critical in view of the link between higher growth and fiscal sustainability. Owing to limited resource availability, enhancing growth calls for more participation of the private sector to generate the requisite investment and growth. In this respect, deepening of reforms tailored towards attracting and retaining foreign direct investment as well as broadening of the tax base becomes paramount.

2. Concluding Remarks and Recommendations

Fiscal sustainability in Lesotho remains a real challenge in the short to medium-term and even beyond which calls for government’s deliberate effort towards fiscal adjustment and concessional resource mobilization. In the event of a deterioration in the global growth environment, both SACU and concessional donor resources might significantly drop. Such a fragile situation might coincide with sluggish domestic growth and call for severe fiscal adjustment with significant political ramifications given the state of unemployment and poverty in the country. Reforms tailored towards creating a more favourable investment environment become more apparent than ever before.
Reference


The Kingdom of Lesotho: Budget Speech, January 18, 2012

The Kingdom of Lesotho: Letter of Intent, March 23, 2012

Annex I: Definition of concessional

Definition: Concessional external debt conveys information about the borrower's receipt of aid from official lenders at concessional terms as defined by the Development Assistance Committee (DAC) of the OECD. Concessional debt is defined as loans with an original grant element of 25 percent or more. The grant element of a loan is the grant equivalent expressed as a percentage of the amount committed. It is used as a measure of the overall cost of borrowing. The grant equivalent of a loan is its commitment (present) value, less the discounted present value of its contractual debt service; conventionally, future service payments are discounted at 10 percent.

Loans from major regional development banks--African Development Bank, Asian Development Bank, and the Inter-American Development Bank--and from the World Bank are classified as concessional according to each institution's classification and not according to the DAC definition, as was the practice in earlier reports. Long-term debt outstanding and disbursed is the total outstanding long-term debt at year end. Long-term external debt is defined as debt that has an original or extended maturity of more than one year and that is owed to nonresidents and repayable in foreign currency, goods, or services. Data are in current U.S. dollars (Source: World Bank, Global Development Finance).

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<thead>
<tr>
<th>ANNEX II</th>
<th>Assumptions on θ under various scenarios considered in the model</th>
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<tbody>
<tr>
<td>θ = 0</td>
<td>SCENARIO I</td>
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<tr>
<td>θ = π*</td>
<td>SCENARIO II</td>
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<tr>
<td>θ = (φ + π*) where 0 ≤ φ &lt; 1 and cannot be 1; implying that GDP growth might be overstated</td>
<td>SCENARIO III</td>
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<th>Derived Scenario Equations</th>
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<tr>
<td>(pb_t / Y_t) = [- rtC (DC0 / Y0) e - (g + π*) (t-1) + (g + π* - rtD) (DD0 / Y0)] [1 / (1 + g + π*)] + (g + π) (B0 / Y0)</td>
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<tr>
<td>(pb_t / Y_t) = [π* - rtC] (DC0 / Y0) e - g (t-1) + (g + π* - rtD) (DD0 / Y0)] [1 / (1 + g + π*)] + (g</td>
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<tr>
<td>(pb_t / Y_t) = [g + π* - rtC] (DC0 / Y0) e - φ g (t-1) + (g + π* - rtD) (DD0 / Y0)] [1 / (1 + g + π*)] + (g + π) (B0 / Y0)</td>
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<td>(pb / Y) = (g + π* - rD) (DD0 / Y0) [1 / (1 + g + π*)] + (g + π) (B0 / Y0)</td>
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