

Ensuring public debt sustainability in Africa

Prospects and policies

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Key messages

Sustainable levels of public debt may need to be reconsidered in the context of Africa's high economic growth rates and improved debt management among other factors.

Current African debt is the lowest in decades, with the fastest decline posted by the most indebted countries thanks to debt relief and accompanying policies that made relief possible.

There is scope for debt management strategies to emphasise growth - for countries with borrowing space, this includes prudent borrowing for growth-enhancing outlays.

African policymakers need to adopt sound fiscal policies and complementary monetary policies, while seizing opportunities for growth-enhancing investment.

Shortly after being hit by the global financial crisis in 2009, Africa staged a robust economic recovery and is now one of the fastest growing regions in the world. The continent's performance is projected to remain strong despite the fragile and tepid global recovery. As several studies and scholars have now pointed out, Africa has the potential to become a global growth pole over the longer term. However, vast infrastructure and human capital gaps constrain Africa's development. Balancing the need to scale up growth-enhancing public outlays and debt sustainability is therefore a key policy challenge ahead.

What constitutes sustainable levels of public debt may need to be reconsidered in the context of Africa's high economic growth rates, reduced risk premia, low interest rates, and strengthened debt management capacity. During the past decade, debt sustainability has improved markedly and in the aftermath of the global financial crisis Africa's debt-to-GDP today is lower than it has been in decades. Still, the global financial crisis has left some countries with looming fiscal challenges and deteriorating public debt sustainability.

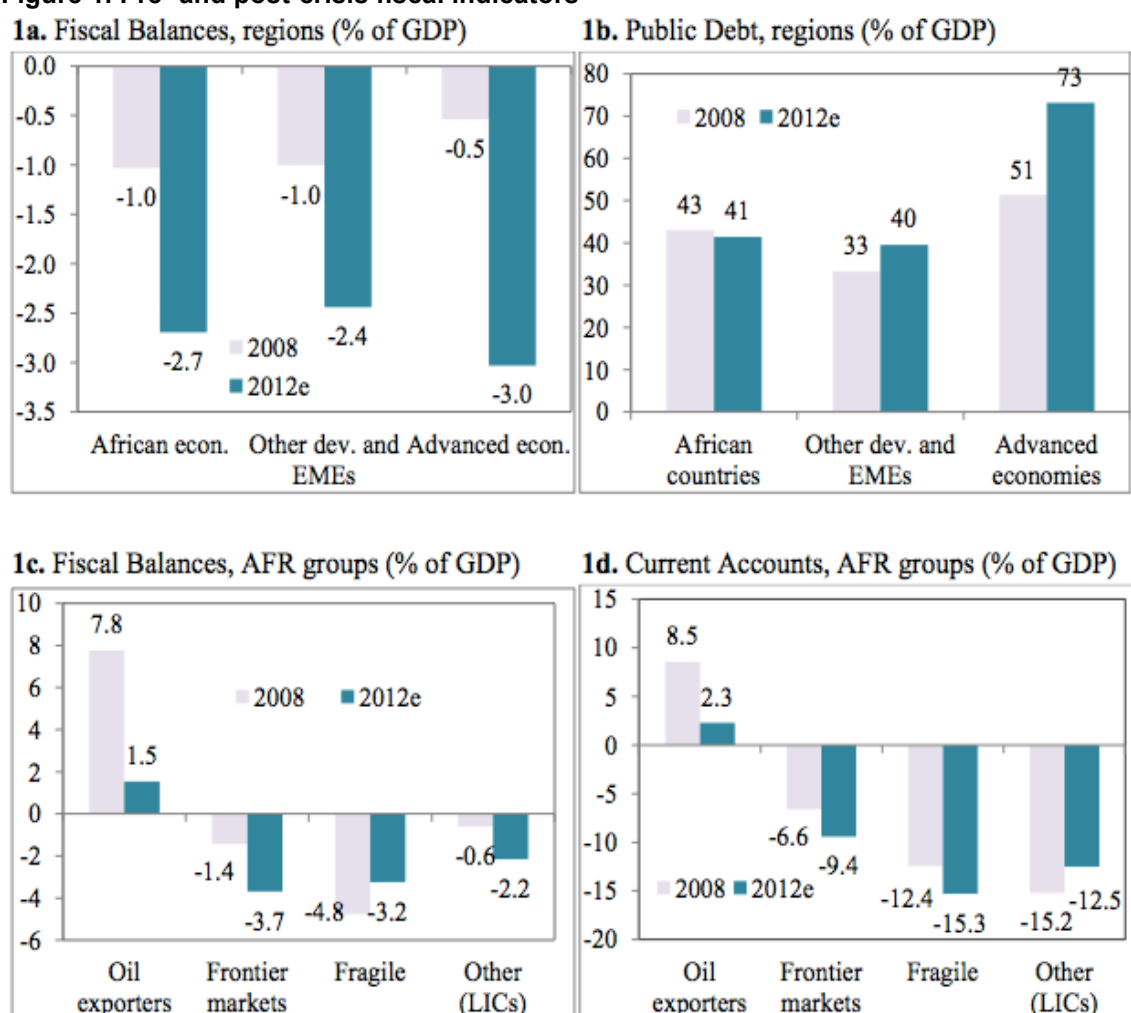
This article considers the public debt legacy of the crisis in Africa. The following section summarises the recent fiscal and external indicators for African countries. We then present and discuss the varied fiscal outcomes among African countries as well as their impact on fiscal space four years after the global financial crisis. We briefly consider the sustainability of African debt dynamics using the debt-stabilising primary balance framework as in Buiter (1985), Blanchard (1990) and more recently Escolano (2010) and Contessi (2012). The final section concludes with challenges ahead and policy options.

The fiscal legacy of the global financial crisis in Africa

African countries – which entered the global financial crisis with overall low debt levels, adequate foreign exchange reserves, and moderate inflation – experienced the crisis shock mostly through cuts in external demand and liquidity shortages. Where policy buffers allowed, governments adopted counter-cyclical responses to the crisis, usually in the form of increased capital outlays and/or monetary easing.¹ This section examines differences in fiscal outcomes in Africa between 2008 and 2012, both at the aggregate and country level. Both ‘stock’ (debt) and ‘flow’ (balance) types of outcomes are considered. This distinction is needed since, as shown below, deteriorating fiscal balances do not necessarily raise debt, while improved balances can be associated with higher indebtedness.

Overall, the global financial crisis has left African countries with weakened fiscal (and current account) balances. Specifically, four years after the crisis, fiscal balances remained lower than before the crisis in about two-thirds of African countries. While the magnitude of the continent’s fiscal deterioration is similar to that in other developing and emerging market countries, its drivers differ. Unlike in richer countries where the increased deficits were caused mostly by stimulus policies, in Africa external shocks played an important role. Figure 1 shows how key pre- and post-crisis fiscal indicators of African countries compared in 2012 to other global groupings, as well as key differences within African groupings.

Figure 1. Pre- and post-crisis fiscal indicators



Source: Ncube and Brixiova (2013), ‘Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead’, William Davidson Institute Working Paper No. 1053.

Note: Results are medians for the world regions and averages for African-country groups.

¹ Kasekende *et al.*, 2010.

Fiscal balances and public debt ratios on the continent have exhibited notable heterogeneity and variations even during such a short time period as the aftermath of the global financial crisis. In general, countries with stronger fiscal positions at the outset of the crisis implemented more decisive counter-cyclical measures and experienced larger deterioration of their fiscal balances.

After recording sizeable fiscal surpluses in the run up to the crisis, oil exporters saw their fiscal balances fall markedly in 2009. Nevertheless most countries at least partly recovered with favourable oil prices and the group posted a small surplus in 2012. Despite this rebound, oil exporters need to tackle the underlying structural weaknesses and reduce dependence on volatile commodity revenues.

Frontier markets experienced the largest deterioration of fiscal balances and increases in public debt as a result of the counter-cyclical measures adopted in 2009 and beyond. Many of these countries have maintained expansionary policies. Their access to financing has allowed for maintaining budget deficits and financing them through sovereign bond issues – as Namibia and Zambia did externally, and Kenya locally.

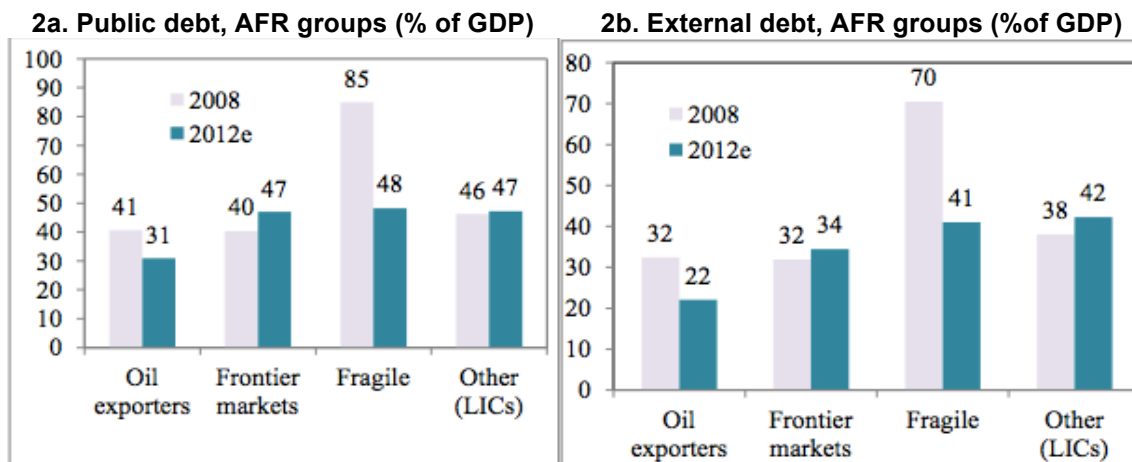
Most of the other countries, especially fragile states, could not adopt counter-cyclical measures during the crisis, due to both limited fiscal policy buffers and access to borrowing. Their fiscal balances have thus weakened less than those of the frontier markets. These countries have also posted current account deficits in double digits, raising concerns about vulnerability to external shocks.

As indicated in Figure 1, Africa's public debt-to-GDP ratio declined during the 2008 – 2012 period, as widened primary fiscal deficits (i.e. deficits net of interest payments) were offset by factors such as low or negative real interest rates, high growth, and debt relief in some low-income countries.

Differences again emerged across groups and countries, as indicated in Figure 2. In contrast to the other African groups, public debt levels have increased most notably in the frontier markets. The increase reflected mostly expansionary policies during the crisis years and beyond and in some cases also sovereign bond issuances on international markets. Total external debt (public and private) across subgroups has followed similar patterns as public debt. Even though most of the external debt is public, corporate debt has also been growing.

Grouping the countries by income shows that the total public debt increased in middle-income countries and declined in low-income countries. Two observations stand out. First, albeit rising, the overall debt level in middle-income countries is still markedly lower than that in low-income countries. Second, the current African debt is the lowest in decades, with the fastest decline posted by the most indebted countries thanks to debt relief and accompanying prudent policies that made the relief possible. As the composition of public debt has shifted from external to domestic (and from official to unofficial) creditors since 2000 while external reserves rose, countries vulnerability to external shocks has subsided.

Figure 2. African sub-groups: Public and external debts follow similar patterns



Source: Ncube and Brixiova (2013), 'Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead', William Davidson Institute Working Paper No. 1053.

While the relatively low overall public debt levels and declining trend are positive signs, they do not leave room for policymakers' complacency. Vast differences among countries prevail, with the highest debt level (over 100% of GDP) in 2012 held in Eritrea (126% of GDP) and Sudan (112% of GDP); debt exceeded 80% of GDP in several other countries (e.g., Cape Verde, Mauritania, Sao Tome & Principe, Seychelles). Further, there is no predetermined debt threshold that would indicate that fiscal (solvency) crisis is about to occur. While it is clear that higher public debt makes a country more vulnerable to a crisis (other factors being equal), it is not possible to determine the specific tipping point. Moreover, widening fiscal deficits indicate shorter-term fiscal vulnerabilities (including to liquidity crisis) and reduced fiscal space.

Key characteristics and patterns of continent's public debt during 2003 – 2012 include a strong positive relationship between nominal public debt and GDP. This highlights that those African countries, with a greater capacity to contract debt (measured by GDP) have done so. Since the period includes the years preceding the Multilateral Debt Relief Initiative, oil exporters and frontier markets did not have higher public debt-to-GDP ratios than other countries. Rather several fragile and less developed countries had the highest average public debt burdens during the past 10 years.

In the current debt sustainability analysis and practice, the debt-to-GDP ratio is only one indicator of the country's capacity to contract loans and repay them. Debt-to-revenue ratio is another measure, which reflects more directly resources available to the governments.

There are also some indications that African countries with higher debt-to-GDP ratios tend to have lower revenue-to-GDP ratios (and thus lower debt repayment capacity) and vice versa. In broad terms, the fiscal stance and policy flexibility within Africa's sub-groups can be summarised as follows:

- Oil exporters remain the most fiscally sound group in Africa in terms of levels. Even though their fiscal space was substantially cut, it remains the strongest in absolute terms, in part because of accumulated fiscal, resource and/or foreign exchange reserves.
- In fragile states, public debt decreased markedly due to Multilateral Debt Relief Initiative and prudent policies that accompanied this debt relief. However policy buffers in these countries are limited because of high current account deficits and low reserves. Moreover, dependence of this group on external aid remains high.
- With rising fiscal deficits and debt – in part because of issuance of external sovereign bonds – fiscal sustainability has been gaining attention as a policy priority in frontier markets. Several countries from this group have recently had their sovereign credit ratings downgraded. On a positive side, Nigeria received an upgrade in the early 2013.

How sustainable is Africa's public debt path?

The two main approaches to the debt sustainability are: (i) the approach of the International Monetary Fund and the World Bank, which looks at debt path projections and how they relate to thresholds;² and (ii) the debt-stabilising primary balance approach, which looks for the primary balances to achieve a chosen debt path, given the assumptions about the evolution of the real interest rate and growth. We consider the sustainability of African debt dynamics using the debt-stabilising primary balance approach. This approach has the advantage of being relatively simple, transparent and having low data requirements.

The basic set-up is straightforward. Changes in public debt-to-GDP over time are decomposed into debt-stock, real interest rate and primary fiscal balance components, as follows:

$$d_t - d_{t-1} = \frac{r_t}{1 + g_t} d_{t-1} - \frac{g_t}{1 + g_t} d_{t-1} - p_t \quad (1)$$

² Niskanen (2013) discusses in detail the IMF-World Bank debt sustainability framework.

where d_t is the stock of public debt (as % of GDP) at t ; r_t is the real interest rate; g_t is the real GDP growth (in %); and p_t is the primary fiscal balance (in % of GDP) at time t . From this set-up we can compute the primary balances that would keep the debt-to-GDP ratio at its current level as:

$$p_t^* = \frac{r_t - g_t}{1 + g_t} d_{t-1}^* \quad (2)$$

where p_t^* is the stabilising primary balance and d_t^* is the stable debt-to-GDP ratio at time t . The difference between the stabilising and the actual primary balance is referred to as ‘primary balance gap’. A positive gap would mean that in the absence of fiscal adjustment, the debt-to-GDP ratio would rise over time. From equation 1 it also follows that when the real interest rate is above the growth rate of GDP, the debt-to-GDP ratio will rise unless the primary balance outweighs the impact of this differential. Decomposing $r_t/(1 + g_t)$ into $(i_t - \pi_t)/(1 + \gamma_t)$, where γ_t denotes the growth of nominal GDP, illustrates that inflation impacts the debt-to-GDP ratio through lowering the real interest rate.

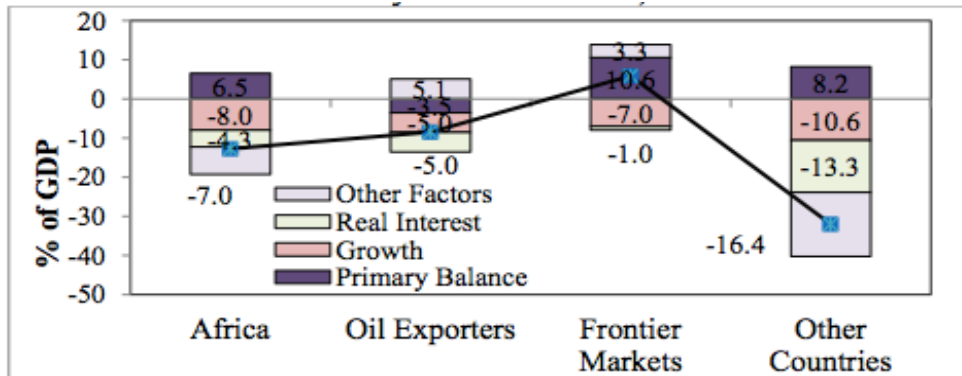
Omitting the time subscript t and given an initial debt-to-GDP ratio (d_0) and a ratio to be achieved in N periods (d_N), the constant primary balance (p^*) to achieve this becomes:

$$p^* = \frac{\lambda}{(1 + \lambda)^N - 1} ((1 + \lambda)^N d_N^* - d_0) \quad (3)$$

where $\lambda = (r - g)/(1 + g)$.

We look into what factors – growth, real interest rates, primary balance or other factors (including debt relief) – drove public debt changes in Africa and its groups. On the continent and in all groups, high growth and negative real interests contributed to decline in debt burden.

Figure 3. Drivers of government debt dynamics in Africa, 2008 – 2012



Source: Ncube and Brixiová (2013), ‘Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead’, William Davidson Institute Working Paper No. 1053.

Note: ‘Other factors’ include debt relief, exchange rate changes and ad-hoc debt reclassification, among others.

While growth played an important role across Africa, the negative interest rates helped lower debt especially in low-income countries (including fragile states), reflecting the concessional terms of their loans. In contrast, in frontier markets where governments often borrow on market terms – either on domestic markets as in Kenya, or on international bond markets as in Ghana and Namibia – the contribution of real interest to cutting the debt burden has been lower. Except for oil exporters, fiscal policies led to debt accumulation in all Africa’s sub-groups. Finally, low-income countries saw their debt levels fall due to debt relief (see Figure 3).

Drawing on equation (1), we now ask what fiscal policies – in terms of primary fiscal balances (as % of GDP) – would have stabilised the debt ratios at their 2007 levels in the frontier markets and middle income oil exporters during 2008 – 2012. For countries where the initial (2007) level of debt exceeded 40% of

GDP, we also examine what type of fiscal policies (primary balances) would have resulted in debt reduction to this benchmark.

Table 1. Real interest-growth differentials, 2008 – 2012 (%)

	Real GDP Growth	Nominal Interest Rate	Change in GDP Deflator	Real Interest Rate	Interest-Rate-to- Growth Differential
Benin	3.5	1.6	3.9	-2.2	-5.8
Burkina Faso	5.8	1.8	4.9	-3.1	-8.9
Burundi	4.1	2.2	14.9	-12.6	-16.7
Cape Verde	4.9	1.6	3.6	-2.0	-6.9
Central African Rep.	2.8	2.6	3.4	-0.8	-3.6
Chad	3.8	1.9	6.9	-5.0	-8.8
DRC	6.0	5.6	19.0	-13.4	-19.4
Republic of Congo	5.8	2.0	6.9	-4.9	-10.7
Côte d'Ivoire	2.7	2.8	3.1	-0.4	-3.1
Egypt	4.2	6.0	11.0	-5.1	-9.3
The Gambia	3.7	4.7	4.0	0.7	-3
Guinea	2.9	2.7	14.7	-12.1	-14.9
Guinea-Bissau	2.7	0.5	3.3	-2.8	-5.6
Kenya	3.8	4.7	9.6	-4.8	-8.7
Lesotho	5.2	1.8	6.5	-4.6	-9.8
Liberia	6.8	0.9	5.8	-4.9	-11.6
Mali	3.4	1.7	5.5	-3.8	-7.2
Mauritania	3.5	1.8	7.9	-6.1	-9.6
Morocco	4.4	4.6	1.9	2.7	-1.7
Namibia	3.5	5.7	6.5	-0.8	-4.4
Nigeria	6.9	8.1	8.6	-0.6	-7.5
Rwanda	8.6	1.9	7.6	-5.7	-14.3
Senegal	3.3	3.0	2.5	0.4	-2.8
Seychelles	2.3	5.7	13.7	-8.0	-10.3
Sierra Leone	7.9	3.4	12.8	-9.4	-17.3
South Africa	2.2	7.8	7.0	0.8	-1.5
Togo	4.0	1.5	5.2	-3.7	-7.7
Tunisia	2.5	4.3	4.9	-0.7	-3.1
Uganda	5.9	4.5	11.6	-7.1	-13

Source: Ncube and Brixiová (2013), 'Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead', William Davidson Institute Working Paper No. 1053.

From our detailed analysis of African countries³, we find that in more than half of the countries studied the primary balance was above that required to keep the public debt-to-GDP ratio at its 2007 level. Taking this perspective would then suggest that fiscal stance of majority of the countries in this group was sustainable at the end of 2012. Still, in some of these countries the public debt-to-GDP ratio was above 40%, pointing to a need for fiscal adjustment.⁴

Table 1 lists the calculated real interest-rate-to-growth differentials for a sample of African countries for the period during and after the crisis. It shows that in all countries for which data was available, the interest-rate-to-growth differential was negative and exceeded - 10% in about one third of the countries. For the few countries with positive real interest rate (for example, Senegal and Morocco), growth eroded the debt ratio enough to more than offset the interest impact. However, in few cases, the narrow interest-rate-to-growth differential was not able to counter the impact of sizeable primary deficits.

³ For full discussion, see Ncube, and Brixiová, 2013.

⁴ In fiscal consolidation debates, 40% public debt-to-GDP ratio is often recommended as prudent limit that developing and emerging market countries should not exceed on a long-term basis.

Conclusions and policy discussion

Africa's public debt-to-GDP is lower today than it has been in decades and the overall fiscal policies are sustainable in most countries. The debt level is also comparable to other developing countries and below that of advanced economies. The debt-to-GDP ratio decline was to a large extent due to favourable differential between real interest rates and growth. In contrast, fiscal policy contributed to decline of debt only in oil exporting economies. At the same time, as oversubscriptions and favourable terms of Africa's sovereign bonds have shown, a number of countries have gained attention from international investors which has opened up their borrowing space.

There is, therefore, scope for debt management strategies to emphasise growth. For countries with borrowing space, this includes prudent borrowing for growth-enhancing outlays. The heightened interest of international investors combined with favourable terms has created a window of opportunity for African countries to embark on inclusive growth also through prudent borrowing, provided the funds are well utilised for growth-enhancing outlays. However, the interest-rate-to-growth differential is subject to shocks: while Africa's growth prospects are promising, the real interest is likely to be rising in the future. With the anaemic global recovery, some downside risks to growth remain, Africa's increased linkages with South partners notwithstanding.

In the framework utilised in this article, policymakers can reduce public debt-to-GDP ratio by:

- i. accelerating growth;
- ii. improving primary balances through revenue mobilisation and optimising of outlays;
- iii. reducing the real interest (also by raising inflation), and
- iv. defaulting.

Since inflation and defaulting undermine other goals that the government is likely to pursue (notably, rising living standards of the population and improved access to capital markets), we discuss growth and fiscal policies.

Given that the interest-rate-to-growth differential has been the main driver of prudent public debt dynamics in recent years, African countries may like to aim at high growth as a key element of their debt sustainability strategy. Even though Africa's growth recovery from the crisis' shock has been fast, growth rates remain below trend in a number of countries, suggesting space to grow. Further, for Africa to become a global growth pole in the next two to three decades and keep the pace with rising populations, growth in most African countries needs to accelerate beyond the pre-crisis rates.

African policymakers need to adopt appropriately sound fiscal policies and complementary monetary policies, while seizing opportunities for growth-enhancing investment, including through borrowing. Caution should be exercised however when approaching commercial debt markets given the borrowing cost and possibility of shifting sentiments of investors. With low revenue-to-GDP ratios, many low-income African countries can reduce their debt through domestic revenue mobilisation. They would also benefit from greater efficiency of public expenditures and medium-term perspective in budgeting. Reducing inefficient spending (for example, over-sized wage bills in Southern Africa and costly energy subsidies in North Africa) would create space for pro-growth outlays (support to small- and medium-sized enterprises and investments in infrastructure and ICT) and discretion against shocks. In general, we can make the following distinctions around policies that appear prudent at this stage for ensuring long-term debt sustainability in Africa:

- Countries with high public debt and/or large fiscal deficits – Sudan among the oil exporters, Eritrea among fragile states, and Egypt, Ghana and Morocco among frontier markets – need to undertake fiscal adjustment. The scope and the speed should account for its likely impact on investment and growth, to avoid debt traps.
- In frontier markets with more developed financial system and monetary policy space (for example, Cape Verde and Mauritius), the government could try to ease the impact of fiscal adjustment on growth via less tight monetary policy. Further, in some countries, especially those with long-term domestic debt, slightly higher domestic inflation could in theory help 'inflate the debt away', even though this option would have other negative implications.

Beyond these near-term policies, a number of structural and institutional changes and reforms will also enhance debt sustainability in African countries. Efforts to regain fiscal policy space and manage debt would benefit from macroeconomic policies based on fiscal rules and medium-term expenditure frameworks. Such frameworks would also help countries transition gradually to counter-cyclical and growth-supporting fiscal policies. In countries where rapid debt accumulation is of concern, 'debt breaks' could be also useful. Taking a long-term view, fiscal policy buffers are needed for emerging challenges such as creation of social protection schemes. African countries also need to strengthen their capacity to carry out independent debt sustainability analysis and apply it to their borrowing activities. Together with improved debt management capacity, such changes would allow frontier markets to access additional (non-concessional) funds, while maintaining fiscal sustainability.

Changes in the international financial institutions' debt sustainability frameworks, and in particular better links between investment and growth, may be needed to reflect the phenomenon of 'rising Africa'. A key question in this regard is: given the current high economic growth rates, lower risk premia, and lower global interest rates, what should be the new sustainable debt levels (and thresholds) in various African countries, especially frontier markets? Besides changes to the debt sustainability frameworks, reaching the objectives of enhanced borrowing space and fiscal sustainability hinges critically on increased transparency and improved communication. While progress has been made, most countries could do much more in utilising technology for sharing information on key fiscal and macroeconomic developments. Similarly, communicating countries' fiscal stance and changes to it early on (and delivering on the announcements) can help raise credibility of fiscal policy.

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This briefing note has been condensed from Ncube and Brixiová (2013), 'Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead', William Davidson Institute Working Paper No. 1053. The full working paper can be consulted for more detail on each of the debt sustainability issues discussed.

This note is also the basis for an article, 'Prospects and policies in ensuring public debt sustainability in Africa', in the September 2014 issue of ECDPM's *GREAT insights* magazine on Financing Development. See <http://ecdpm.org/great-insights> for more.

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