

# 1. Navigating Headwinds

*Sub-Saharan Africa's economy looks set to register another year of solid growth in 2015 (4½ percent). Still, this expansion will be at the lower end of the range by recent standards, and reflects the adverse shock that has hit some of the region's largest economies due to the sharp decline in oil prices (Figure 1.1). The impact of this shock is set to be quite heterogeneous: for the eight oil exporters, it will pose a formidable challenge and, with limited buffers, will require them to undertake significant fiscal adjustment. For most other countries, lower oil prices represent a favorable development which, however, will be partly offset in some cases by lower prices of other commodities that they export.*

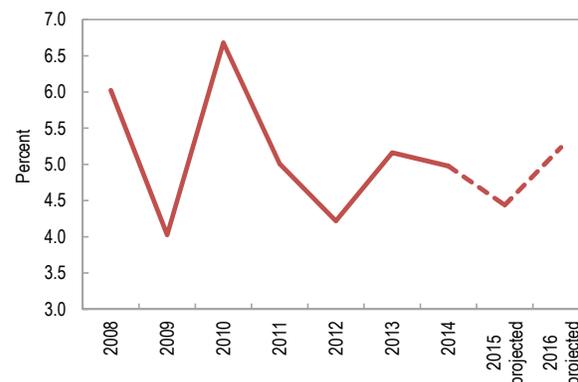
This major development in commodity prices—plus the increasingly volatile external financing environment and the Ebola outbreak that has been exacting a heavy economic and social toll on Guinea, Liberia, and Sierra Leone—are explored in some depth in this chapter. The next two sections set out the global outlook and, in that context, the outlook for sub-Saharan Africa. The following two sections then discuss the impact of the decline in commodity prices on the region, considering separately oil exporters and the other countries in the region, and assess the implications of tightening global financing conditions for sub-Saharan African frontier markets. The final section reports on the impact of the Ebola outbreak on sub-Saharan Africa.

Chapters 2 and 3 focus on more medium-term trends facing the region. Chapter 2 discusses the challenges and opportunities associated with the forthcoming massive increase in the working-age population of sub-Saharan Africa. To enjoy a dividend from this demographic transition, sub-Saharan Africa will need to create jobs at a hitherto unprecedented rate. This will require policies that favor investment in human capital, tackle the

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**Figure 1.1. Sub-Saharan Africa: Real GDP Growth, 2008–16**

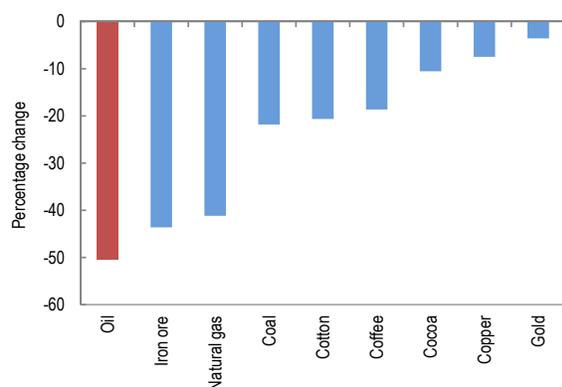


Source: IMF, World Economic Outlook database.

infrastructure deficit, ensure greater labor market flexibility, and support production in labor-intensive sectors. It will also require sub-Saharan Africa to become more integrated into the global economy, a topic analysed in more detail in Chapter 3. This chapter finds that notwithstanding rapid growth in trade flows over the last two decades, substantial opportunities still lie ahead, and the region has some way to go to better integrate into global value chains. To leverage that potential and ensure in the process strong job creation and durable growth, the chapter highlights the critical need to not only fill the infrastructure gap, but also lower tariff and nontariff barriers, and improve the business climate and access to credit.

## GLOBAL BACKDROP: NOT WHAT IT HAS BEEN

Since the summer of 2014, there have been major changes to the global economic environment facing the region. Oil prices have declined by about 50 percent since June 2014, and supply and demand factors have both contributed to these developments (Figure 1.2). Looking ahead, oil prices are expected to rebound but to remain below the level of recent years. There is, however, substantial uncertainty about the evolution of supply and demand. The prices of many key

**Figure 1.2. Selected Commodity Prices, Change from June 2014–March 25, 2015**

Source: Bloomberg, L.P.

commodities exported by sub-Saharan Africa have also declined since last June—natural gas by 41 percent, iron ore by 44 percent, coal by 22 percent, cotton by 21 percent, copper by 7½ percent, and platinum by 22 percent—although the price of some other exports, such as zinc, has increased.

The prospects for global growth are also weaker than in October, notwithstanding the lower oil prices (Table 1.1). This, however, masks significant differences across regions. The outlook for the United States remains strong, and this has increased the likelihood of exit from unconventional monetary policy (UMP). Among sub-Saharan Africa's main trade partners, prospects in Europe remain lackluster at best. In China, the ongoing transition away from an investment-led growth strategy is also expected to contribute to lower growth prospects and lower demand for sub-Saharan Africa's exports. Finally, the dollar has appreciated substantially against the euro. This has implications for the region, where many countries have formal pegs to the euro, while a few others peg informally to the dollar.

**Table 1.1. Sub-Saharan Africa: Real GDP Growth, 2015**  
(Percent)

	World	United States	Euro area	Emerging markets	China
2015 projection	3.5	3.1	1.4	4.3	6.8
Revision from October 2014	-0.4	0.0	0.1	-0.7	-0.3

Source: IMF, World Economic Outlook database.

## OUTLOOK: GROWING (WITH) PAIN

### Outlook

Sub-Saharan Africa enjoyed robust economic growth of 5 percent in 2014 driven by strong investment in mining and infrastructure and by strong private consumption, especially in low-income countries (Table 1.2). However, growth was down slightly from the previous year as oil exporters started to adjust to the lower global oil prices, growth in South Africa decelerated substantially on account of mining strikes and electricity supply constraints, and the countries at the epicenter of the Ebola outbreak were severely impacted by the epidemic.

Activity is expected to decelerate further in 2015, although with growth at 4.5 percent, sub-Saharan Africa will remain among the fastest-growing regions of the world. The slowdown mainly reflects difficulties in the region's oil exporters and the countries impacted by the Ebola outbreak. Excluding these countries and South Africa, growth is projected to be healthy, even if the impact of the oil price decline is largely offset by that of the decrease in other commodity prices.

Oil exporters are facing a challenging environment, and their growth in 2015–16 is expected to average 4¾ percent, substantially marked down from 7 percent expected in October 2014.

- Nigeria, sub-Saharan Africa's largest economy and oil exporter, has been hit hard by the shock. With limited buffers, the authorities are cutting capital spending and have adjusted monetary and exchange rate policies to relieve pressures on the public finances and the currency. Thus, real GDP growth in 2015–16 is expected to average 5 percent, nearly 2½ percentage points below expectations in October 2014. Even this is predicated on an attenuation of the heightened political and financial uncertainty and on an effective policy response. In Angola, real GDP growth in 2015–16 is expected to be 4¼ percent on average, compared with 5½ percent on average over 2012–14. This

reflects significant adjustment and these projections have been marked down by  $2\frac{1}{4}$  percent relative to October, with non-oil growth halved.

- Among sub-Saharan Africa's other oil exporters, average 2015–16 real GDP growth for countries in the Economic Community of Central African States (CEMAC) is expected to be about  $4\frac{1}{4}$  percent, marked down by about  $\frac{3}{4}$  percent relative to October. This reflects some adjustment-related cuts in capital spending which is affecting non-oil growth, increases in oil production, and a combination of drawing on buffers and borrowing. There remains considerable uncertainty about the assumptions underlying the projections and, in view of exchange rate rigidities, the risk of a worse outcome is not inconsiderable.

For much of the rest of the region, the impact of the commodity price decline is small and on average growth projections are broadly unchanged from October 2014 (Figure 1.3). Average real GDP growth in 2015–16 will remain strong, reaching  $4\frac{3}{4}$  percent, and about  $6\text{--}6\frac{1}{2}$  percent when South Africa is excluded.

- In South Africa, growth was lackluster in 2014, but is expected to pick up a bit and average 2 percent in 2015–16. Even this growth is slower than previously expected, with the net terms-of-trade improvement offset by fiscal consolidation and continuing problems in the electricity sector.
- Among the other middle-income countries, Ghana's fiscal consolidation will impact growth significantly in 2015, which will undershoot

**Table 1.2. Sub-Saharan Africa: Real GDP Growth**  
(Percent change)

	2004–08	2009	2010	2011	2012	2013	2014	2015	2016
<b>Sub-Saharan Africa</b>	<b>6.8</b>	<b>4.0</b>	<b>6.7</b>	<b>5.0</b>	<b>4.2</b>	<b>5.2</b>	<b>5.0</b>	<b>4.5</b>	<b>5.1</b>
<i>Of which:</i>									
Oil-exporting countries	9.2	6.9	8.5	4.7	3.7	5.7	5.8	4.5	5.2
<i>Of which: Nigeria</i>	8.6	9.0	10.0	4.9	4.3	5.4	6.3	4.8	5.0
Middle-income countries <sup>1</sup>	5.0	0.2	4.6	4.7	3.4	3.6	2.7	3.3	3.7
<i>Of which: South Africa</i>	4.8	-1.5	3.0	3.2	2.2	2.2	1.5	2.0	2.1
Low-income countries <sup>1</sup>	7.7	6.6	7.6	7.6	6.1	7.1	7.4	6.5	7.1
Fragile states	2.4	2.1	4.1	3.1	7.4	5.6	5.6	6.1	6.5
Memorandum item:									
World economic growth	4.9	0.0	5.4	4.1	3.4	3.4	3.4	3.5	3.7
Sub-Saharan Africa resource-intensive countries <sup>2</sup>	6.9	3.8	6.7	4.8	4.2	4.7	4.5	3.9	4.4
Sub-Saharan Africa frontier and emerging market economies <sup>3</sup>	6.6	4.8	7.1	5.1	4.3	4.9	5.0	4.6	4.9

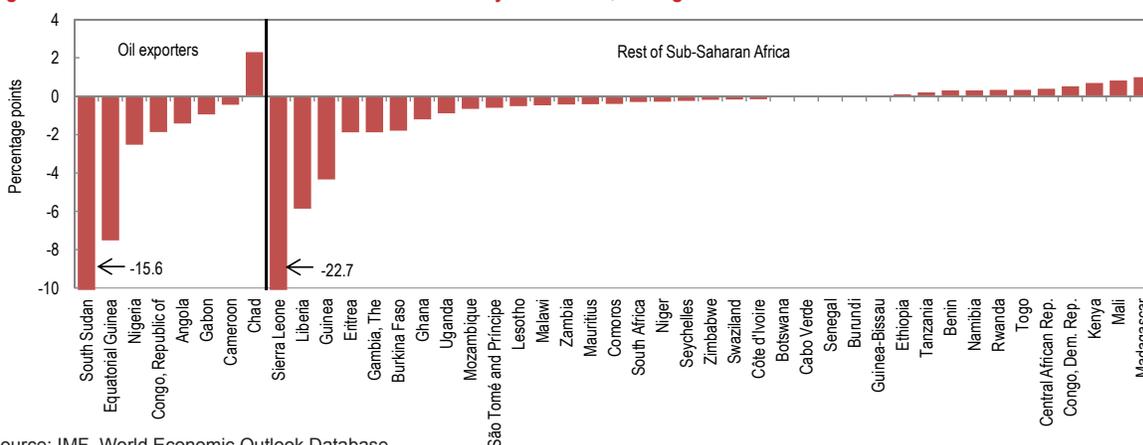
Source: IMF, World Economic Outlook database.

<sup>1</sup>Excluding fragile states.

<sup>2</sup>Includes Angola, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Republic of Congo, Equatorial Guinea, Gabon, Ghana, Guinea, Liberia, Mali, Namibia, Niger, Nigeria, Sierra Leone, South Africa, Tanzania, Zambia, and Zimbabwe.

<sup>3</sup>Includes Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mauritius, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, and Zambia.

**Figure 1.3. Sub-Saharan Africa: Real GDP Growth Projection 2015, Change from October 2014**



Source: IMF, World Economic Outlook Database.

earlier expectations by nearly 1 percentage point, but growth is expected to recover strongly in 2016, on the back of expanding oil production. In Zambia, lower copper prices and policy uncertainty are acting as a drag on investment and growth; growth rates for 2015–16 have been revised down by an average of about ½ percentage point since October.

- Conversely, strong growth in low-income and fragile countries, notably in Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, and Mozambique, will continue to be driven by investment in mining and infrastructure and by strong consumption, with average growth in 2015–16 of 6¾ percent, in line with earlier expectations. However, growth has been revised down in some countries. In Burkina Faso, growth in 2015–16 is expected to be sharply lower than previously expected, as a difficult situation, on account of lower commodity prices and the impact of the regional Ebola outbreak, is being exacerbated by political upheaval. Growth has also been revised down in Uganda, but this reflects an adjustment following the rebasing of the national accounts and the adoption of a new methodology that increased the level of GDP by about 17 percent but lowered growth by ¾ of a percentage point in 2014.
- As discussed in some detail in the final section, the situation in the Ebola-affected countries remains grim. In October 2014, growth estimates were lowered but a modest increase in real GDP was still projected. By contrast, real GDP is currently estimated to contract in all three countries in 2015. The impact is especially

severe in Sierra Leone, where the main iron ore mine has ceased operations and activity is expected to contract by more than 10 percent. Among other countries, The Gambia's 2014–15 tourist season has been badly hit, owing to the Ebola epidemic in the region—its real GDP is estimated to have contracted in 2014 and growth will remain dampened in 2015.

These growth outcomes to a large degree reflect countries' fiscal and monetary policy responses to the shocks.

- Fiscal deficits are set to remain high across the region in 2015. Oil exporters are tightening fiscal policy and this will partially offset the impact of the shock, but fiscal deficits are still projected to widen by about ¾ percentage point of GDP relative to 2014. Government debt, while generally low, is projected to be some 2½ percentage points of GDP higher than before the shock, but with more significant increases in some countries. In most other countries, 2015 fiscal deficits are expected to be broadly unchanged from 2014, remaining at elevated levels (Table 1.3). In the countries affected by the Ebola epidemic, fiscal positions have been badly impacted by efforts to combat the disease.
- Monetary policy has been tightened in some countries, notably oil exporters whose currencies have come under pressure. While most sub-Saharan African countries have seen their exchange rates depreciate against the dollar since August 2014, this is broadly consistent with the experience of other emerging market and developing countries (Figure 1.4).

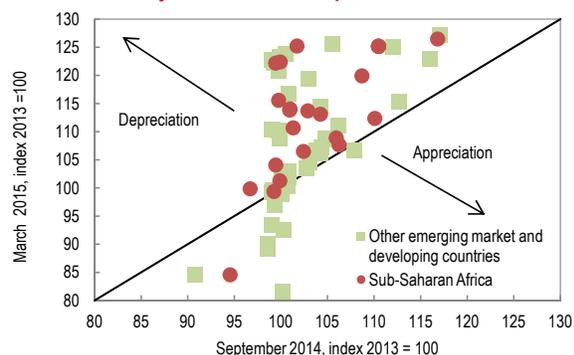
**Table 1.3. Sub-Saharan Africa: Other Macroeconomic Indicators**

	2004–08	2009	2010	2011	2012	2013	2014	2015	2016
				(Percent change)					
Inflation, end of period	8.9	9.2	7.7	10.2	8.2	6.1	6.1	7.4	6.6
				(Percent of GDP)					
Fiscal balance	1.7	0.3	-3.4	-1.1	-1.8	-3.0	-3.3	-3.7	-2.9
Of which: Excluding oil exporters	-0.6	-1.6	-4.3	-3.7	-3.7	-3.9	-4.1	-4.1	-3.6
Current account balance	1.9	0.5	-0.6	-0.7	-1.9	-2.5	-3.3	-4.6	-4.1
Of which: Excluding oil exporters	-4.4	-3.0	-3.9	-4.9	-7.2	-7.7	-7.3	-7.0	-7.1
				(Months of imports)					
Reserves coverage	5.1	3.7	4.2	4.6	5.4	5.2	5.4	...	...

Source: IMF, World Economic Outlook database.

Note: Data for 2015 and 2016 are projections.

**Figure 1.4. Sub-Saharan Africa: Nominal Exchange Rate, National Currency to U.S. Dollar, September 2014–March 2015**



Source: IMF, *International Financial Statistics*.

Inflation in the region, helped by low global food and fuel prices, is expected to remain contained, albeit with a small uptick in 2015, reflecting the pickup in inflation in the two largest oil exporters as the impact of the exchange rate depreciation (Angola and Nigeria) and of cuts in fuel subsidies (Angola) feeds through. But in other oil-exporting countries, little change is expected. Among oil importers, the impact of the decline in oil and commodity prices is expected to drive down inflation marginally in 2015.

Current account deficits are expected to widen substantially for oil exporters relative to October, with large increases in a number of countries. Conversely, among oil importers, current account balances are generally set to improve. However, for a few resource exporters, the decline in other commodity prices could have a larger impact than the decline in oil prices and result in their current account balances worsening.

### Implications for Policies

Faced with a sharp decline in oil prices, and in line with projections in the April 2015 *World Economic Outlook*, only a modest recovery in prices is expected and oil exporters must adjust now.

- Undertaking fiscal adjustment is a priority. This is important given the very tight financing conditions they face, the bouts of market pressure experienced in some cases, and the substantial increase in public debt even under current policies in others. Spending cuts should be directed,

to the extent possible, to recurrent spending, but significant cuts in public investment are unavoidable. In this context, efforts to improve the efficiency of public spending, including by eliminating inefficient fuel subsidies, will be essential. If adjustment is delayed—because of political uncertainty or because countries are used to high public spending levels—buffers could quickly be depleted and macroeconomic pressures arise (as elaborated in the next section on Falling Commodity Prices).

- Where feasible (given institutional exchange rate arrangements), exchange rate flexibility will be important, including to preserve scarce external buffers.
- In the medium term, exporters of oil and other natural resources would benefit from encouraging more rapid economic diversification, in particular by addressing the major outstanding infrastructural bottlenecks to private sector activity (including by small and medium-sized enterprises) and improving their business environment.

This is also a unique opportunity for all countries in the region to introduce a politically difficult set of reforms by concomitantly reducing energy subsidies, improving the health of public sector energy producers, and passing through some of the price decline to consumers and companies. In this regard, countries that already have automatic price adjustment mechanisms—and that had therefore adjusted retail prices upward when global oil prices increased—should maintain them, allowing the lower global oil prices to be reflected fully in lower retail prices. Where retail prices are administratively set, authorities should consider passing on at least some of the decline in global prices to consumers while starting the process of establishing flexible fuel and energy pricing mechanisms.<sup>1,2</sup> Only in cases of seriously overstretched public finances should the lower oil prices be used only to improve the fiscal position.

<sup>1</sup> It is noteworthy that in some countries retail fuel prices have in fact increased as countries seek to eliminate subsidies.

<sup>2</sup> Support measures should be narrowly targeted to the poor and vulnerable groups.

Beyond the current shock, achieving sustained, high, and inclusive growth remains the overarching priority for the region. In this context, addressing the infrastructure gap is critical to create jobs, meet the social needs of a population in the midst of a demographic transition (see Chapter 2), and create the conditions to deepen trade ties with the rest of the world and integrate successfully into global value chains (see Chapter 3). In scaling up investment to address their infrastructure bottlenecks, countries should nonetheless remain mindful of the need to preserve debt sustainability, while avoiding an unsustainable increase in recurrent expenditure. Parallel efforts to improve absorption capacity and the efficiency of investment remain key.

## Risks

The large fiscal deficits that prevail in some countries will continue to need monitoring. Given the strong likelihood that global financial conditions will tighten in the period ahead and limited financing opportunities in domestic and regional markets, financing may suddenly become unavailable or financing costs may rise steeply (see the section below on External Financing Conditions). Countries may then have to undertake a deeper-than-planned adjustment with cuts to capital spending likely to bear the brunt. In that context, there would be a negative impact on growth in both the near and the medium term.

As elaborated in the April 2015 *World Economic Outlook*, given the imminent normalization of monetary policy in the United States, a broader reassessment of emerging market risk could occur. Should this risk materialize and financing costs increase sharply, countries that are planning Eurobond issues may need to reconsider their plans. Postponing needed policy adjustments would create macroeconomic imbalances, give rise to policy uncertainty, increase further borrowing costs, and exacerbate the risk of disorderly capital movements.

The ongoing appreciation of the dollar poses a number of risks. The currencies of a number of sub-Saharan African countries have already depreciated significantly against the dollar. In the near term, this will increase the cost of imports, much of which is typically related to investment, with an

attendant adverse impact on growth. A depreciation of the exchange rates will also increase debt service costs where dollar-denominated debts represent a substantial share of total public debt, and will result in worsening balance sheet positions of banks and private sector entities. Finally, there is a risk that, in some countries, depreciation may start to fuel inflationary pressures.

Risks that global growth could slow further are not inconsiderable. In particular, the weakness in Europe and Japan poses downside risks to the world recovery. Similarly, growth in China could slow abruptly in 2015–16. This would lower the demand for sub-Saharan Africa's products, drive growth lower, and widen fiscal deficits.

Some sub-Saharan African countries are also facing risks that are specific to the region.

- Important security-related risks have recently come to the forefront in a number of countries, in particular associated with Boko Haram's increased activities in Cameroon, Chad, Niger, and Nigeria, but also with other instances of violence in the Central African Republic, Mali, and South Sudan. Such developments not only pose serious fiscal risks, but also, if exacerbated, would surely impact growth, especially in agriculture, cloud the political climate, and deter domestic and foreign investors.
- Elections in 2015, including in Burkina Faso, the Central African Republic, Côte d'Ivoire, Ethiopia, Guinea, Nigeria, Tanzania, and Togo, will also complicate the implementation of politically difficult policies.
- While there are some indications of the Ebola epidemic coming under control, the situation remains fragile and the risk of infection increasing out of existing hotspots is not insignificant.

## FALLING COMMODITY PRICES: A TALE OF TWO AFRICAS

The sharp decline in commodity prices is impacting the region in a highly heterogeneous manner. As indicated in Table 1.4, oil exporters are most hard-hit. In other countries in the region, the

**Table 1.4. Sub-Saharan Africa: Terms of Trade**  
(Weighted averages)

	Change 2014–15	Change 2014–16
Oil exporters	-27.5	-21.0
Middle-income countries	1.4	0.0
Low-income countries and fragile states	2.5	-4.6

Source: IMF, World Economic Outlook database.

impact is more muted, or even slightly positive. Past experience with similar shocks bears out the heterogeneous nature and large size of the impact on the region (Box 1.1). This section seeks to identify some of the channels through which countries are being impacted.

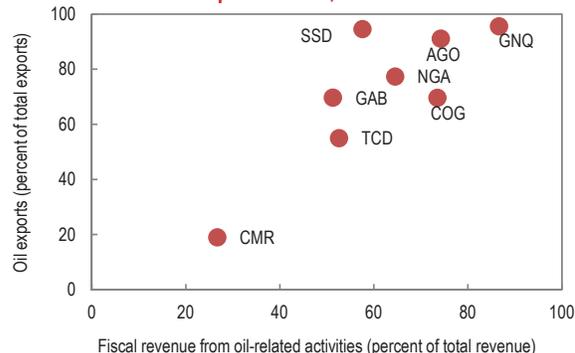
## Oil Exporters

### Oil exporters are facing a formidable adverse shock

Oil production in sub-Saharan Africa is highly concentrated in eight countries together comprising more than one-fourth of the region's population and about half the region's GDP. Within this group, oil production is further concentrated in two countries (Angola and Nigeria, the largest and the third-largest economies in the region), which supply nearly three-fourths of the region's oil output. Gross oil exports alone account for nearly one-fourth of oil exporters' GDP, and (except in Cameroon) for a large share of total exports. As regards public finances, with the exception of Cameroon, net oil exporters derive more than 50 percent of their revenues from oil-related activities (Figure 1.5).

The initial impact of the shock will therefore be felt directly on the fiscal and current account balances (Figures 1.6 and 1.7). Thereafter, as countries undertake fiscal adjustment, near- and medium-term growth will also be adversely affected. Under unchanged policies, fiscal deficits in 2015 would worsen by at least 5 percentage points of GDP in most countries, and significantly more in some. Only in Nigeria, whose economy is more diversified, and in Cameroon, which is a relatively minor oil producer, is the deterioration in fiscal balances smaller. Similarly, current account balances would deteriorate by about 8 percentage points of GDP, turning to deficit in most countries under unchanged policies.

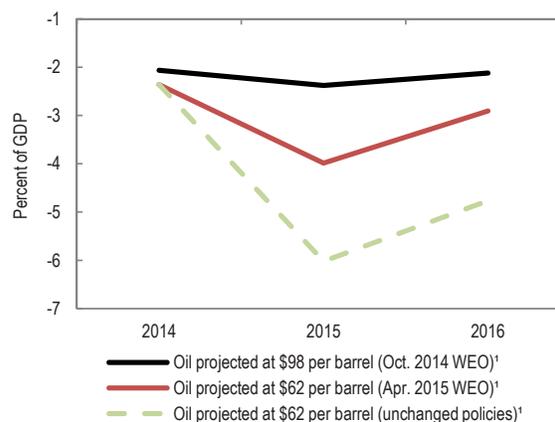
**Figure 1.5. Sub-Saharan African Oil Exporters: Fiscal Oil Revenue versus Oil Exports Share, 2013**



Sources: IMF, African Department database; and World Economic Outlook database.

Note: See page 70 for list of country acronyms.

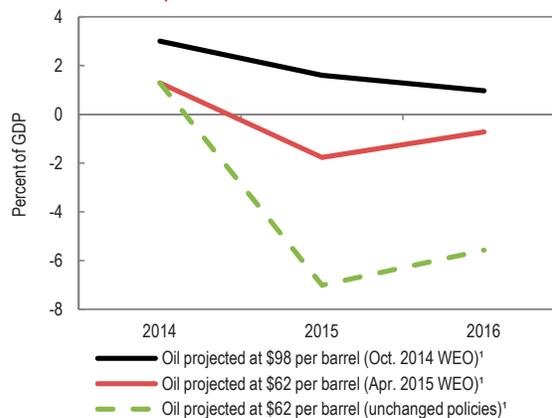
**Figure 1.6. Sub-Saharan African Oil Exporters: Fiscal Balance, 2014–16**



Sources: IMF World Economic Outlook (WEO) database; and IMF staff estimates.

<sup>1</sup> Projected oil prices are an average of 2015 and 2016.

**Figure 1.7. Sub-Saharan African Oil Exporters: Current Account Balance, 2014–16**



Sources: IMF, World Economic Outlook (WEO) database; and IMF staff estimates

<sup>1</sup> Projected oil prices are an average of 2015 and 2016 prices.

### Oil exporters have started to adjust

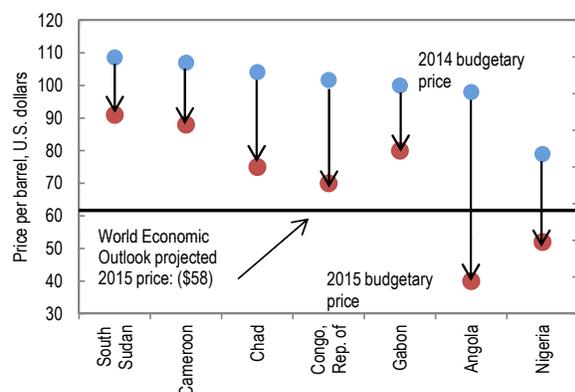
Net oil exporters have started to adjust their policies in response to the shock, recognizing its multi-year nature and its impact thus far.

- As the oil price has plunged, countries have revised down substantially the oil price implicit in their 2015 budgets. These adjustments, however, are still partial in many countries, with budgetary oil prices remaining significantly above projected international oil prices (Figure 1.8).
- Together with lower budgetary oil prices, countries have introduced plans to reduce expenditure, most notably for public investment, and to increase non-oil revenue. Nigeria has announced about 1.8 percent of GDP in expenditure measures (mainly cuts in capital expenditure). Meanwhile, in its revised budget for 2015, the government of Angola is targeting an improvement of about 9½ percentage points of GDP in the non-oil primary balance, mainly through spending cuts in goods and services, in fuel subsidies, and in public investment, with the latter accounting for a significant share of the fiscal adjustment. The authorities in CEMAC countries, too, have expressed intentions to implement a set of strong and simultaneous fiscal consolidation measures.
- Some oil exporters are also making efforts to lower costly subsidies, notably for fuel (Box 1.2). In Angola, gasoline and diesel prices

have been raised by about 50 percent in the second half of 2014 and subsidies on other fuels have been reduced or eliminated. Meanwhile, Nigeria is considering options to reform permanently its subsidy scheme—it has lowered retail fuel prices somewhat, but with lower global oil prices, the amounts budgeted for fuel subsidies have nonetheless declined. In the CEMAC, Cameroon embarked on a reform of its fuel pricing system in mid-2014, and Gabon has announced the phasing out of gasoline and diesel subsidies.

Monetary and exchange rate policies have also been adjusted in response to the shock. In Nigeria, the exchange rate has been under sustained pressure since the fourth quarter of 2014. The Nigerian authorities initially devalued the official exchange rate (that is, the rate in the foreign exchange auction window) and later took the step to abolish the window. The naira has depreciated by more than 25 percent since October 2014. In addition, to support the naira the Nigerian authorities have spent reserves, raised the policy rate by 100 basis points, and increased reserve requirements by 5 percentage points. In Angola, the authorities are using their international reserves to permit a more gradual devaluation of the kwanza. Since end-September 2014, the currency has depreciated by about 8½ percent, while monetary policy has been tightened, with an increase in the policy rate by 25 basis points and in reserve requirements by 2½ percentage points. The depreciation of the CFA franc—pegged to the euro—against the dollar has smoothed some of the shock for CEMAC oil exporters.

**Figure 1.8. Sub-Saharan Africa: Budgetary Price of Oil, 2014–15**



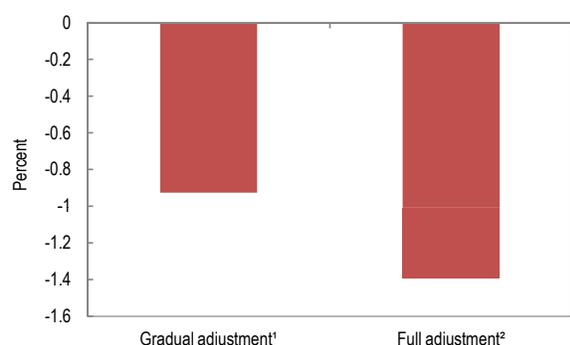
Sources: Bloomberg, L.P.; and IMF staff estimates.  
Note: WEO = World Economic Outlook database.

### The adjustment is impacting real GDP growth

As noted previously, real GDP growth of oil exporters is set to decline substantially as fiscal adjustment in response to the shock will dampen economic activity.<sup>3</sup> Stylized simulations using a multicountry model incorporating most sub-Saharan African economies—the IMF’s Flexible System of Global Models (FSGM)—illustrate the trade-offs between spreading out the adjustment in

<sup>3</sup>In some countries, changes in oil GDP also reflect the natural cycle of production, which is not related to the decline in oil prices.

**Figure 1.9. Sub-Saharan African Oil Exporters: Fiscal Adjustment and Impact on Real GDP Following the Oil Shock, Cumulative Decline Over 2015–16 under Different Scenarios**



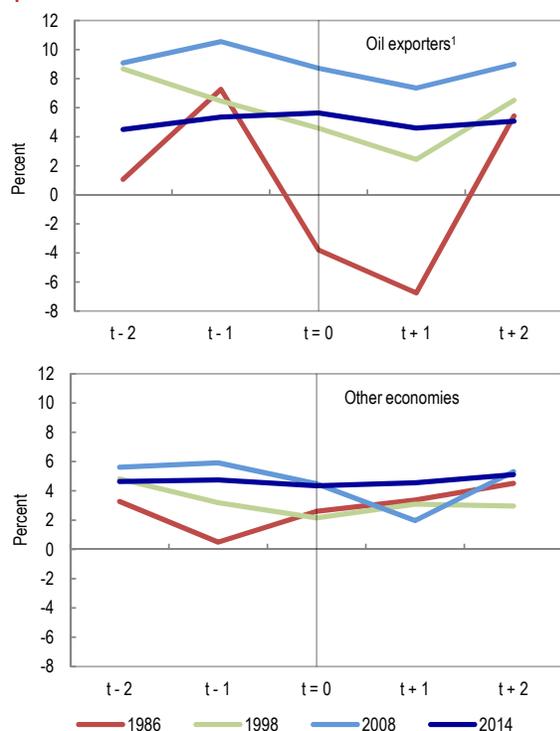
Sources: IMF, World Economic Outlook database; and IMF staff calculations.

Note: The scenarios are computed using the Flexible System of Global Models (FSGM), which is a multiregion, general equilibrium model of the global economy consisting of 22 blocks. Of these 22 blocks, 11 represent sub-Saharan African regions.

<sup>1</sup> Gradual adjustment assumes that the fiscal adjustment is spread over four years.

<sup>2</sup> Full adjustment assumes that the fiscal adjustment is fully front-loaded in 2015.

**Figure 1.10. Sub-Saharan Africa: Real GDP Growth during Episodes of Oil Price Declines**



Source: IMF, World Economic Outlook database.

<sup>1</sup> The aggregation does not include South Sudan, whose figures are subject to large swings.

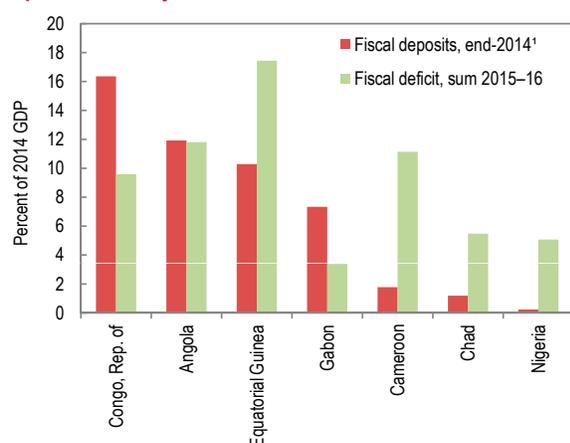
spending over time and adjusting fully in one year.<sup>4</sup> In particular, preliminary results indicate that a gradual adjustment spread over four years reduces the adverse impact on growth cumulatively by 0.5 percentage point of GDP in 2015–16 relative to adjusting fully in one year (Figure 1.9). Slower adjustment would, however, lead to higher public debt and, as discussed below, increase vulnerability to financing shocks.

Comparing the fiscal adjustment planned in response to this shock with past oil shocks is instructive in this regard (Box 1.1). In particular, in response to the current shock, which is expected to be long-lasting, policy actions contain the deterioration in the fiscal deficit in 2015 and over the medium term. By contrast, growth is projected to hold up better than in previous instances, reflecting progress in economic diversification, integration in global trade, fiscal consolidation, debt reduction, and financial sector access (Figure 1.10).<sup>5</sup> Should the required fiscal adjustment, however, not be sustained, there is a significant risk of serious macroeconomic repercussions. Conversely, the required fiscal adjustment may itself have a larger-than-expected adverse impact on growth.

One concern, and a key consideration in deciding to front-load adjustment, is that the availability of adequate fiscal buffers is generally limited. Fiscal deficits are projected to remain sizable even after the planned adjustment. In most cases, resources in stabilization funds and government deposits in the central bank at end-2014 were small in relation to combined 2015–16 fiscal deficits (Figure 1.11). In this situation, real GDP growth is exposed to the risk of a sharper adjustment, should suitable levels of financing to smooth the adjustment to the shock not be available or inflationary pressures disallow running down government deposits. On the external side, the concern is that, as countries smooth their adjustment in the face of depleted buffers, macroeconomic pressures could arise (Figure 1.12).

<sup>4</sup>The properties and structure of the Flexible System of Global Models (FSGM) are presented in Andre and others (2015).

<sup>5</sup>Some oil exporters in 1986 and 1998 were experiencing civil unrest, or had just gone through a period of rapid expansion of the oil sector—which magnified the impact of the oil-price decline.

**Figure 1.11. Sub-Saharan African Oil Exporters: Fiscal Deposits and Projected Deficits, 2015–16**

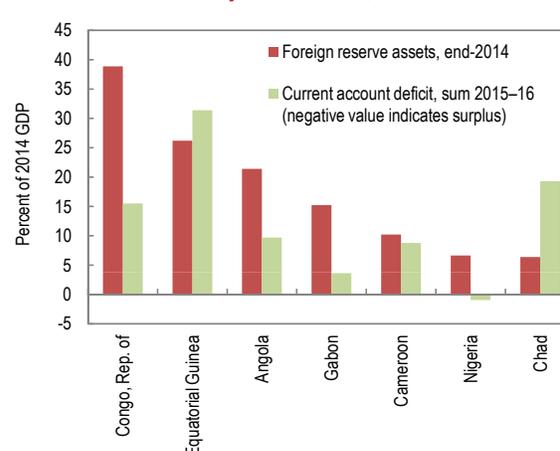
Sources: IMF, *International Financial Statistics*; World Economic Outlook (WEO) database; and IMF staff estimates.

<sup>1</sup> Fiscal deposits include government deposits at the central bank and stabilization funds.

In particular, an exchange rate depreciation could put pressure on the fiscal and current accounts by raising foreign-currency-denominated debt-service costs, offsetting in part the benefits of a smoother adjustment.

Public investment is expected to bear the brunt of the adjustment in most oil exporters and hurt medium-term growth prospects, although to the extent that it has a large import content, the impact on near-term growth will be more muted.<sup>6</sup> Lowered prospects for real GDP growth will also act as a disincentive for private investment, and weaken countries' capacity to diversify away from oil-related sectors. This will reinforce the direct effect of lower investment in the sector stemming from depressed oil prices over the medium term, as well as the possible impact of exchange rate depreciation on private sector balance sheets, and hence on investment.

<sup>6</sup>In 2015, capital expenditure in Nigeria is budgeted to decline by 25 percent in nominal terms from its 2014 level to about half of its level in 2012–13. In Angola, cuts to capital expenditure are expected to bear about half of the burden of the sizable fiscal adjustment. Among CEMAC countries, significant adjustment in capital spending is expected to bear the brunt of the adjustment, although some countries have had difficulties in articulating the needed measures.

**Figure 1.12. Sub-Saharan African Oil Exporters: External Reserve Assets and Projected Deficits, 2015–16**

Sources: IMF, *International Financial Statistics*; World Economic Outlook (WEO) database; and IMF staff estimates.

### Financial stability will bear watching

Should significant exchange rate depreciation or a sharp increase in interest rates materialize, it could have implications for financial stability.

- Commercial banks' foreign liabilities are relatively small and net foreign asset positions at 2.1 percent of GDP on average have remained broadly stable since 2005, albeit with some variation across countries. However, gross foreign liabilities have increased sharply and there is a high concentration of loans to the energy sector in some countries.<sup>7</sup> Should exchange rates come under pressure, the relatively high levels of loan dollarization (albeit extended in part to the dollarized formal sector) are also risk factors.
- Fiscal adjustment in such countries could lead to a buildup of government arrears to suppliers. Their resulting liquidity problems could translate into problems for banks.
- The rapid expansion of pan-African banks—some of which have significant assets in oil-exporting countries—may pose some risks (IMF 2015a). Specifically, should such a pan-African bank experience financial difficulties, it could

<sup>7</sup>This is also flagged as a risk in the April 2015 *Global Financial Stability Report*, which notes that Nigeria had the highest such exposure of the 21 frontier and emerging markets it examines.

impact countries where the group operates. Given the known weaknesses in cross-border supervision, there could be considerable delays in detecting these problems.

## Oil Importers

Sub-Saharan Africa has 37 countries that are net oil importers. In a number of them, other commodity exports play an important role in the economy. This is borne out by the map in Figure 1.13, which indicates countries for which non-oil commodity exports account for more than 25 percent of goods exports on average over 2009–12. Countries with such large non-oil commodity export sectors account for about 40 percent of both the sub-Saharan African population and its GDP.

Sub-Saharan Africa's oil importers stand to benefit substantially from the decline in oil prices. For the average country, oil imports are equivalent to 20 percent of imports and 7 percent of GDP, and a price decline in excess of 50 percent represents savings that are not insignificant. In particular, countries that do not have large resource exports will enjoy a significant windfall.

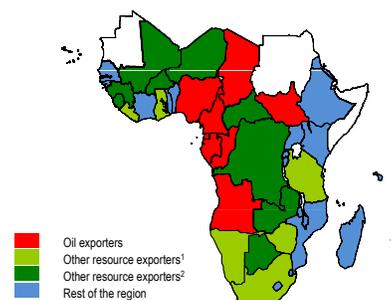
However, the 15 countries in sub-Saharan Africa that have significant non-oil commodity exports are also dealing with a substantial decline in commodity prices in 2014.<sup>8</sup> The export of these commodities constitutes more than 30 percent of combined exports and about 8 percent of the combined GDP of all oil importers. Within the group of countries that have large non-oil commodity export sectors, commodities are still more important, representing over 55 percent of their total exports and about 15 percent of GDP.<sup>9</sup>

The relative importance of oil and commodities in the trade of sub-Saharan Africa's oil importers is reflected in a muted impact of the shocks on oil importers' terms of trade, which are projected to improve by less than 2 percent in 2015, although there are differences across countries (Figure 1.14).

<sup>8</sup> These countries are Botswana, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Guinea, Liberia, Mali, Namibia, Niger, Rwanda, Sierra Leone, South Africa, Tanzania, Zambia, and Zimbabwe.

<sup>9</sup> Aggregate values for the entire group of countries (equivalent to weighted averages).

**Figure 1.13. Sub-Saharan Africa: Commodity Exporters**



Source: IMF, African Department database.

<sup>1</sup> Countries for which nonrenewable resource exports are between 25 and 50 percent of goods exports.

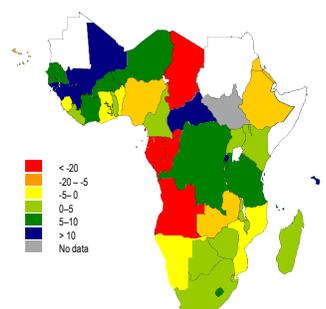
<sup>2</sup> Countries for which nonrenewable resource exports are over 50 percent of goods exports.

On the whole, the impact on oil importers' trade balance in 2015 is also expected to be muted, remaining broadly unchanged compared to 2014.

The direct impact of the change in oil and commodity prices on fiscal balances is more difficult to predict as it depends on each country's tax structure and on the authorities' policy response:

- On the revenue side, the price decline will reduce import duties and other ad valorem taxes on fuel products, and because demand for fuel is typically inelastic, revenue will also decline.<sup>10</sup>
- Where the decline in prices is passed on to consumers (for instance in Ethiopia, Kenya, South Africa, Tanzania, and Uganda), consumption will increase to the extent that households and firms spend part of these savings; this, in turn, would increase revenue from taxes on goods and services.

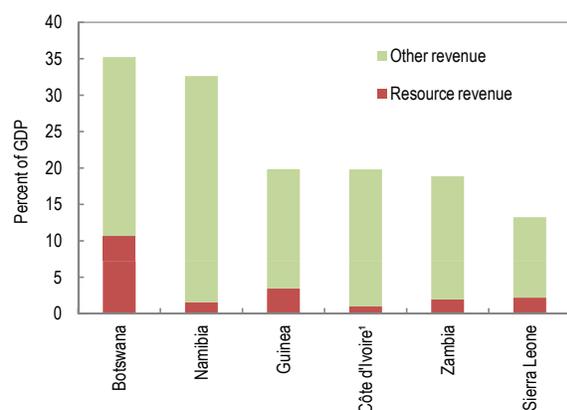
**Figure 1.14. Sub-Saharan Africa: Change in Terms-of-Trade Index, 2015 versus 2014**



Source: IMF, World Economic Outlook database.

<sup>10</sup> Ad valorem taxes are set as a percentage of the price of the product; specific taxes are fixed in proportion to the quantity.

**Figure 1.15. Sub-Saharan Africa: Selected Other Non-Oil Commodity Exporters, Fiscal Revenue Breakdown, 2013**



Sources: IMF, African Department database; and IMF, World Economic Outlook database.

\*Côte d'Ivoire is not part of the group of 15 non-oil, nonrenewable commodity exporters discussed earlier in this section. It does, however, have significant agricultural commodity exports (cacao).

- The decline in other commodity prices will reduce the revenue of commodity exporters, but the impact will be milder than among oil exporters, as in these countries, the share of revenue derived from natural resources is comparatively small (Figure 1.15).
- On the expenditure side, lower fuel prices should translate into a lower public energy bill and, where fuel prices are subsidized and governments take this opportunity to reduce these subsidies, in lower current transfers.

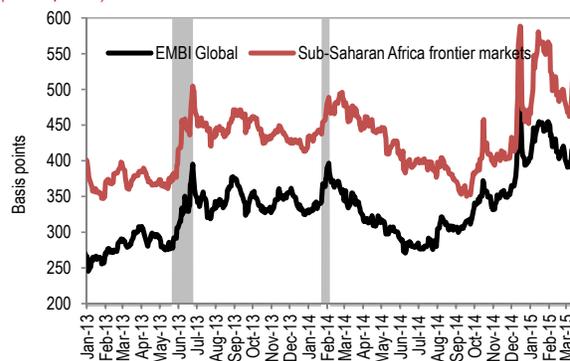
Reflecting the muted near-term impact on key macroeconomic aggregates, the growth of oil importers is expected to be only marginally impacted by the commodity price decline. In addition, oil importers are not expected to be affected by direct spillovers from oil exporters on account of the latter's limited trade linkages with other countries within sub-Saharan Africa (see Chapter 3). However, a subset of sub-Saharan African countries have good prospects to develop interests in the energy sector, especially in east Africa. The lower oil prices could lead to a postponement of such investment with an impact on near- and medium-term growth.

## EXTERNAL FINANCING CONDITIONS: THE TIMES THEY ARE A-CHANGIN'?

Following a period when they remained low and stable, emerging and frontier market spreads, including for sub-Saharan African frontier market economies, have increased back to the levels last seen at the time of the May 2013 “taper tantrum” and have become more volatile. In particular, spreads began to increase in October 2014 as oil prices started to decline, and since December have spiked several times by up to 200 basis points (Figure 1.16). Spreads for countries in the region remain at elevated levels, but with 10-year U.S. bond yields still low, sub-Saharan African frontier market yields are not high by historical standards.

The most recent evidence suggests that investors appear to be discriminating more carefully among sub-Saharan Africa frontier markets, with spreads increasing more sharply in countries facing an uncertain economic outlook in the period ahead. For example, spreads for Gabon and Nigeria, which are dealing with the oil shock, for Ghana, which is adjusting from a difficult fiscal situation, and Zambia, which is impacted by low copper prices, fiscal strains, and some uncertainty regarding future policies, are now above even the peaks of the taper tantrum period (Figure 1.17). In a few frontier markets, spreads have retreated, in some cases close to their pre-taper tantrum lows.

**Figure 1.16. Emerging Market Spreads: 2013–15 (as of March 25)**  
(Basis points)

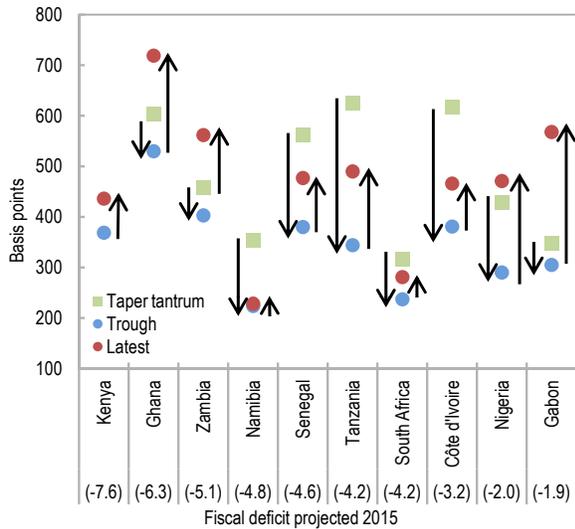


Source: Bloomberg, L.P.

Note: EMBI = J.P. Morgan Emerging Market Bond Global Index.

The sub-Saharan Africa frontier markets simple average includes the spreads of Côte d'Ivoire, Gabon, Ghana, Kenya, Nigeria, Senegal, Tanzania, and Zambia. Shaded areas correspond to “taper tantrum” periods May 21, 2013–June 24, 2013 and January 21–February 4, 2014.

**Figure 1.17. Selected Economies: Change in Sovereign Spreads since June 2013 and Fiscal Balance over 2015**



Source: Bloomberg, L.P.

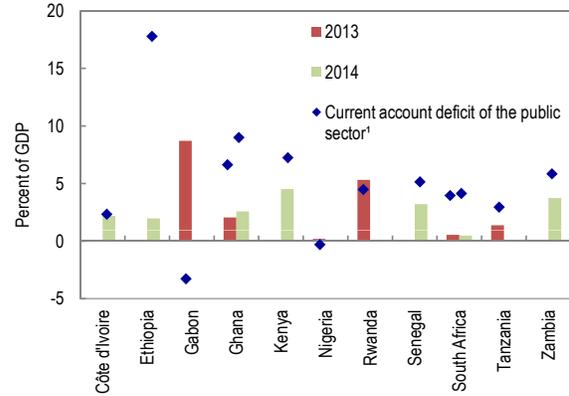
Note: Spreads are J.P. Morgan Emerging Market Bond Global Index. Taper tantrum peak date is June 24, 2013, trough date is October 1, 2014, and latest is March 25, 2015. For Kenya data is available as of July 31, 2014 and for Mozambique data is available from November 27, 2013.

At the same time, an increasing number of countries in sub-Saharan Africa are accessing global financial markets—the outstanding stock of Eurobonds has grown almost fourfold in the last five years. While such financing is key for sub-Saharan African countries as they seek to address their urgent public investment needs, the concern is that in a number of countries these capital inflows may have become a regular source of financing for the public sector.

Current account deficits too have remained elevated for an extended period of time (Figure 1.18). Indeed, in most sub-Saharan Africa frontier markets, current account deficits in 2014 were higher than in 2010, a year when the impact of the global financial crisis in the region had been considerably mitigated (Figure 1.19). Likewise, fiscal balances of market access countries have adjusted little over the same period, and have in fact deteriorated for a number of countries, albeit more slowly than current account balances (Figure 1.20).<sup>11</sup> These developments together have

<sup>11</sup> See also Chapter 1, *Regional Economic Outlook: Sub-Saharan Africa*, October 2014, on emerging fiscal risks in some sub-Saharan African countries.

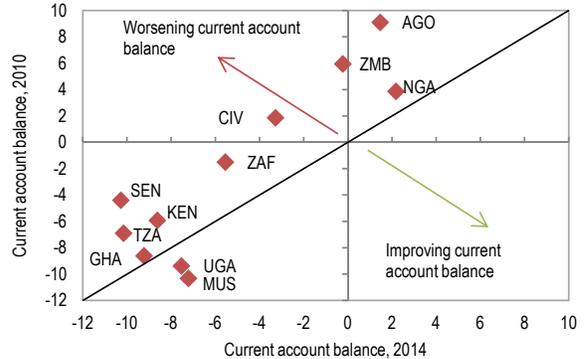
**Figure 1.18. Sub-Saharan Africa: Eurobond Issuances in Relation to Public Sector Contribution to Current Account Deficits, 2013–14**



Sources: Bloomberg, L.P.; and IMF, World Economic Outlook database.

<sup>1</sup> The public sector's contribution to the current account deficit is measured as the negative of the public sector savings-investment balance.

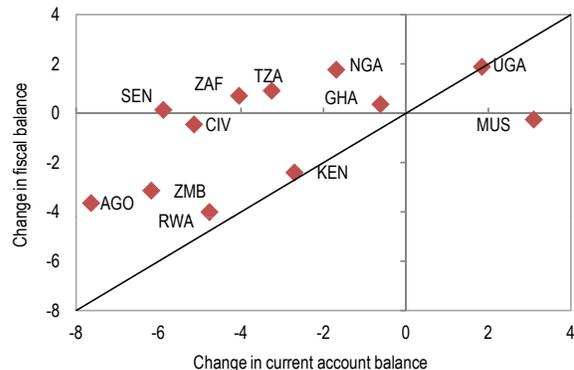
**Figure 1.19. Sub-Saharan African Market Access Countries: Current Account Balance (in Percent of GDP)**



Source: IMF, World Economic Outlook database.

Note: See page 70 for list of country acronyms.

**Figure 1.20. Sub-Saharan African Market Access Countries: Change in Current Account Balance and Fiscal Balance, 2010–14 (in Percent of GDP)**



Source: IMF, World Economic Outlook database.

Note: See page 70 for list of country acronyms.

increased frontier markets' vulnerability to abrupt changes in market sentiment that could lead to sharp increases in the future cost of financing or acute market pressures where foreign investors have significant stakes in domestic sovereign debt.<sup>12</sup> Indeed, the interest rate on Côte d'Ivoire's \$1 billion Eurobond issue in February 2015 was almost 100 basis points higher than its first issue in October 2014. A depreciation of the exchange rate would exacerbate such costs. In fact, should currencies continue to depreciate against the dollar for an extended period, ex-post borrowing in foreign currency may turn out to be more expensive than borrowing in domestic currency.<sup>13</sup>

Thus, it is important to assess the prospects for financial inflows to sub-Saharan Africa in the period ahead. In this context, a key question is whether the yields and volumes evidenced in recent years' bond and equity flows to sub-Saharan Africa were consistent with market conditions and market fundamentals, and if not, whether they are now more closely aligned. Finally, in view of the volatility experienced following the decline in oil prices, it is important to know whether or not the decline in oil prices has triggered a fundamental reassessment of the prices of all sub-Saharan Africa issues, and not just those issued by oil exporters.

In recent years, there have been a number of econometric studies that have sought to identify the determinants of emerging market spreads.<sup>14</sup> The analysis reported in Box 1.3 is similar to a number of these studies, but the framework is specifically set up to explore the issue of a possible bias toward sub-Saharan African securities and whether oil prices impact all sub-Saharan African bond spreads. In addition, it uses monthly data to help identify how spreads change as new information on market fundamentals becomes available, while

<sup>12</sup> In most sub-Saharan Africa frontier markets, the fixed income and bullet structure of their Eurobond issues insulate the issuers from changes in sovereign yields in secondary markets. Hence, for those countries, an increase in yields would not immediately impact government cash flows due on outstanding issues.

<sup>13</sup> See Box 1.1 in the *Regional Economic Outlook: Sub-Saharan Africa*, October 2014.

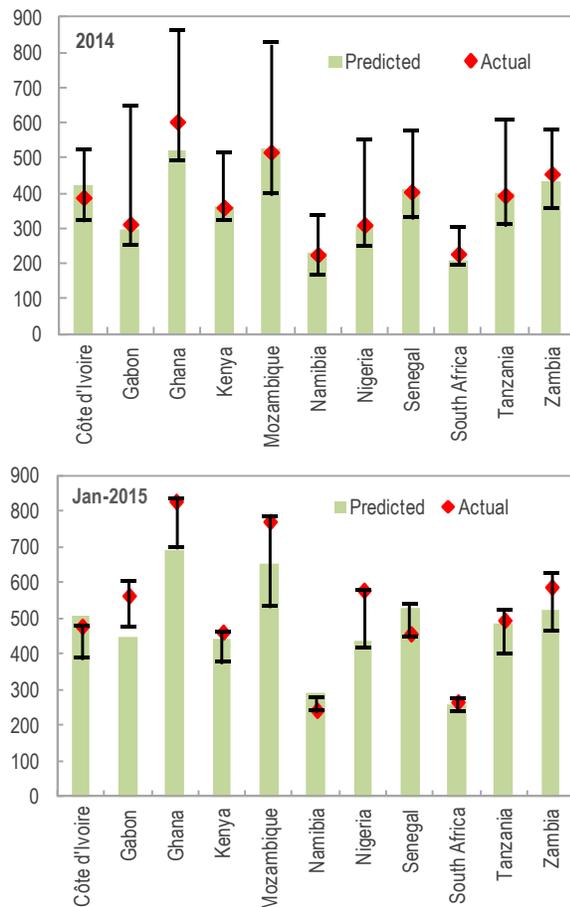
<sup>14</sup> See for instance Annex 2.2 of the April 2013 *Global Financial Stability Report* (IMF 2013b); González-Rozada and Yeyati (2008); and Hilscher and Nosbusch (2010).

avoiding the influence of transitory shocks often encountered when using higher frequency data.

- While the model finds country-specific factors to be important in explaining spreads, it does not detect any bias on average toward sub-Saharan Africa frontier markets.
- For 2014, actual sub-Saharan Africa spreads conform closely, on average, to the predicted spreads of the model, suggesting that spreads on average are well explained by fundamentals. However, actual spreads were volatile and, over shorter durations, spreads diverged significantly from the model's predictions (Figure 1.21). For instance, in 2014, actual spreads exceeded the predicted average spreads by significant margins at times. In January 2015, actual and predicted spreads broadly conformed, but for a few countries that were affected by the lower oil prices or had policy vulnerabilities, actual spreads were somewhat higher.
- Oil prices are a significant determinant of the spreads of oil exporters in particular, but seem to be less important for the spreads of other countries. The model indicates that a \$10 per barrel fall in oil prices increases oil exporters' spread by nearly 10 percent, and oil importers' spread by about 5 percent.

The results indicate that sub-Saharan African securities may not be fundamentally mispriced, but that in the short term, borrowing costs could increase unexpectedly during periods of uncertainty. In particular, sub-Saharan African borrowing costs are expected to increase as yields in U.S. bond markets start to climb once monetary policy normalization is initiated. The change in U.S. yields should be modest as this normalization is gradually phased in. However, such an event could lead to a broader reassessment of risk in emerging markets, as discussed in the April 2015 *World Economic Outlook*. As has happened in the past, the anticipation of exit from unconventional monetary policy could trigger renewed market unrest and a widening of spreads.

**Figure 1.21. Sub-Saharan African Market Access Countries: Sovereign Spreads**



Sources: Bloomberg, L.P.; and IMF staff calculations.  
 Note: Actual and predicted spreads are average values for the periods they refer to. Lines indicate distance between minimum and maximum.

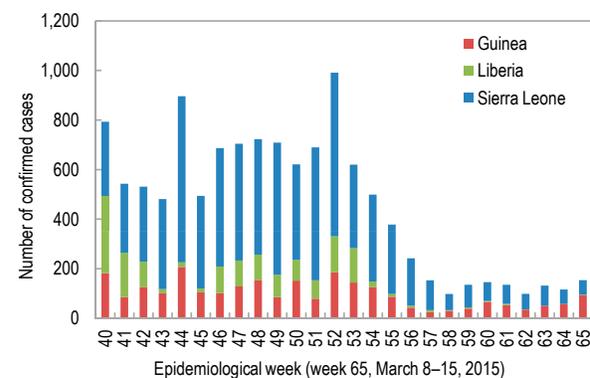
## THE IMPACT OF THE EBOLA OUTBREAK

The Ebola outbreak in Guinea, Liberia, and Sierra Leone—the epicenter—intensified quickly in the second half of 2014, and confirmed cases increased exponentially from under 500 at end-June to more than 24,500 by mid-March 2015, resulting in more than 10,000 deaths. The massive drive to contain the epidemic has succeeded in gradually reducing the pace of new infections per week from about 700 in December 2014 to about 100 in early March 2015 (Figure 1.22). However, the outbreak is not yet fully under control, with hotspots persisting

across the region. Thus, further infections within the epicenter and onward transmission to neighboring countries remain a risk.

The Ebola outbreak has brought considerable economic damage to all three countries (IMF 2014b; 2014c, 2014d; World Bank 2014, 2015). Beyond the large number of deaths and extensive human suffering, the epidemic has disrupted labor markets and created substantial health and containment costs for the public and private sectors. In addition, the epidemic led to enhanced risk-aversion behaviors by domestic and international agents, which had a large knock-on effect on activity. In particular, the commerce, travel, and transportation sectors have been severely impacted by the departure of expatriates, the suspension of some flights, the closure of markets and regional borders, reduced capital utilization (for example, mine closures), and internal travel restrictions due to governments' quarantine measures. As the agricultural sector has been hit hard, domestic food production has suffered. Combined with constraints on food imports related to border closures, this is creating food security issues. For example, in a recent publication the Food and Agriculture Organization and the World Food Programme estimates that nearly half a million Guineans are suffering from food insecurity as a result of the Ebola epidemic (FAO/WFP 2014).

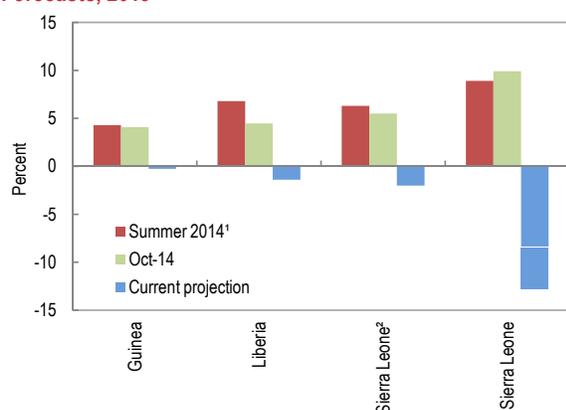
**Figure 1.22. New Confirmed Ebola Virus Disease Cases per Week**



Source: Country authorities.

Future output losses are expected to be large. As reported in Figure 1.23, current growth projections in all three countries have been marked down substantially. Before the Ebola outbreak, they were on a strong growth trajectory, projected to grow, on average, 6½ percent annually over 2014–15. However, since mid-2014, these economies have seen negative output growth, with reduced activity in mining, services, and agriculture. Real GDP in 2015 is now expected to contract in all three countries.

**Figure 1.23. Sub-Saharan Africa: Real GDP Growth Forecasts, 2015**

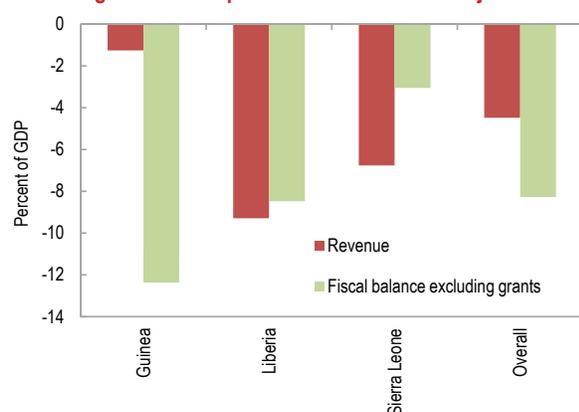


Sources: IMF, World Economic Outlook database; and IMF staff estimates.

<sup>1</sup> The summer 2014 projections are taken from IMF country reports (IMF 2014b, 2014c, 2014d).

<sup>2</sup> Growth in real GDP excluding iron ore.

**Figure 1.24. Changes in 2014–15 Revenue and Fiscal Balance Excluding Grants Compared to Summer 2014 Projections**



Sources: IMF, World Economic Outlook database; and IMF staff estimates.

The epidemic has impacted seriously the public finances of the affected countries.

- Government revenue is expected to decline by 4½ percentage points of their combined GDP compared with levels projected prior to the epidemic (Figure 1.24). In addition to the epidemic, lower iron ore prices have also impacted revenues in all three countries, and especially in Sierra Leone, where iron ore accounts for some 25 percent of GDP and 50 percent of total exports. In Guinea, delayed pass-through of lower oil prices to consumers is expected to offset in part the revenue shortfall.
- Outlays have been raised to help contain the disease and implement social programs to support vulnerable groups. For example, in 2014–15, Guinea and Liberia are planning to spend about 5 percent of their GDP on Ebola response plans. Thus, even allowing for some decline in investment spending due to labor market disruptions and import bottlenecks, total public expenditures for the three countries will increase by 4 percent of combined GDP over 2014–15.<sup>15</sup>
- For the countries as a group, the overall fiscal balance is projected to deteriorate by about 8 percent of their combined GDP in 2014–15 (cumulatively), though most of the weakening is envisaged for 2015. However, because of partly offsetting under-execution of capital budgets, the change in the overall fiscal balance underestimates the true fiscal impact of the epidemic. For instance in Liberia, the IMF country team estimates the total fiscal impact to be about 19 percent of GDP cumulatively for 2014–15. Similarly, for Sierra Leone, the total fiscal impact is estimated to be more than 10 percent of non-iron ore GDP—more than triple the fiscal deterioration reported in Figure 1.24.

<sup>15</sup> Expenditure increases are partly due to factors not directly related to the Ebola epidemic: for example, a wage increase in Guinea will lead to a ¾ percentage point of GDP increase in the 2015 wage bill.

The international community has pledged significant financial support to the three affected countries to contain the epidemic quickly and effectively. Liberia is expected to get considerable budget support—about 15 percent of GDP—cumulatively for 2014–15, and pledges of total support amount to about \$1.1 billion (or 56 percent of GDP). Total Ebola-related external support for Guinea and Sierra Leone is projected at 7 percent and 8 percent of GDP, respectively. However, a large portion of this financial support remains to be delivered. Liberia had received only a quarter of the pledged amount as of January 2015.

The IMF has been actively supporting the three affected countries. Since September 2014, it has provided additional financial assistance to Guinea, Liberia, and Sierra Leone totaling about \$290 million to help finance the large fiscal deficits they have been facing. In addition, in February 2015, the IMF established a new Catastrophe Containment and Relief Trust, which will provide exceptional support to countries confronting major natural disasters, including epidemics. Under this new trust, the IMF is providing grants totaling about \$100 million to the three affected countries for debt relief to the IMF, creating some near-term fiscal space. This strong response is expected to have a catalytic impact on donors to deliver on their pledged assistance to these countries.

A few countries outside the epicenter have experienced considerable economic spillovers, mainly in terms of lower inflows of tourists and business travel, in some cases delaying investment. In The Gambia, tourism represents its largest source of foreign exchange and the shock is estimated to have led to a decline of 60 percent in tourist arrivals for the 2014–15 season. Similarly, tourism

activity is estimated to have declined in Senegal as well as in Burkina Faso. In addition, countries bordering the three Ebola epicenter countries (for example, Côte d'Ivoire and Mali) and regional travel or trade hubs (for example, Nigeria) have experienced small declines in cross-border trade, as travel has been restricted and borders closed.

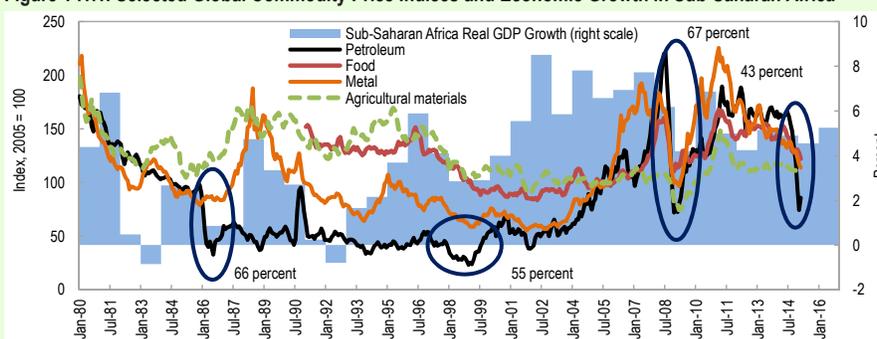
Overall, a number of policy lessons can be drawn from the Ebola outbreak crisis.

- Ebola-like shocks are hard to predict and to prepare for. For fragile states to hold suitably large buffers to combat the shock would be prohibitively expensive in terms of the opportunity cost of foregone investment in social and physical infrastructure. Nonetheless, the presence of some buffers would have facilitated an early response while the support of the international community was being mobilized.
- Macroeconomic policies during such emergencies should be allowed to expand, and exchange rates to adjust, as was done in the three Ebola-affected countries. The experience shows that prompt financial support from the international community is critical to enable the implementation of such an accommodative policy response. Indeed, in the three affected countries, such policy easing was made possible by the prompt provision of international financial support.
- Beyond that, the determined efforts and strong coordination of the authorities and the international community are needed to contain such pandemic outbreaks. Sustained international support, including financial assistance, is required even after the outbreak has been contained to enable a recovery in the postpandemic period.

### Box 1.1. Oil Price Shocks in Historical Perspective

*Economic activity in sub-Saharan Africa has decelerated during previous episodes of decline in global commodity prices.* Focusing primarily on four episodes of oil-price decline of comparable magnitude (Figure 1.1.1), average growth for the region has decelerated in all cases. Specifically:

Figure 1.1.1. Selected Global Commodity Price Indices and Economic Growth in Sub-Saharan Africa



Source: IMF World Economic Outlook database.

- **1986**—Oil prices declined by about 66 percent from November 1985 to July 1986. Real GDP growth for the region fell from an average of almost 3 percent in 1984–85 to an average of less than 1 percent in 1986–87.
- **1998**—Oil prices declined by 55 percent from November 1996 to December 1998. Average growth fell from about 5 percent in 1996–97 to less than 3 percent in 1998–99.
- **2008**—Oil prices declined by 67 percent from July to December. The deceleration of economic activity of nearly 2 percentage points in 2009–10 relative to 2006–07 was largely the result of the global crisis and was exacerbated by the concomitant sharp—yet relatively short-lived—decline in oil (and other commodity) prices.<sup>1</sup>
- **2014**—Oil prices declined by 43 percent between June and December. Under the current *World Economic Outlook 2015* projections, sub-Saharan Africa’s real GDP growth is expected to, on average, decline slightly to 4¾ percent in 2015–16 relative to about 5 percent in 2013–14.

*There are, however, some notable differences across countries.* Although GDP growth among oil exporters softened in episodes of oil-price decline,<sup>2</sup> other economies in the region saw some acceleration in economic activity, with the notable exception of 2008–09, when growth declined across the board (Figure 1.1.2). Specifically:

- In 1985, real GDP growth in oil-exporting countries averaged about 7 percent (Figure 1.1.2, left panel). In the next two years, growth in this group was negative (there were also some cases of civil war). In other economies (Figure 1.1.2, right panel), average real GDP growth accelerated rapidly after 1985.
- Similarly, around 1998 when the price of oil was steadily declining, real GDP growth decelerated among oil-exporting countries (Figure 1.1.2, left panel), but was relatively flat among other economies—except for a slow spot in 1998, largely explained by a significant slowdown in economic activity in South Africa.<sup>3</sup>

<sup>1</sup> For details see *Regional Economic Outlook: Sub-Saharan Africa* (April, October 2009; April, October 2010).

<sup>2</sup> As of 2014, eight sub-Saharan African countries are classified as oil exporters, but not all of them have been in that category since 1980. Similarly, some countries that have been categorized as oil exporters since at least 1980 have experienced civil war at some point.

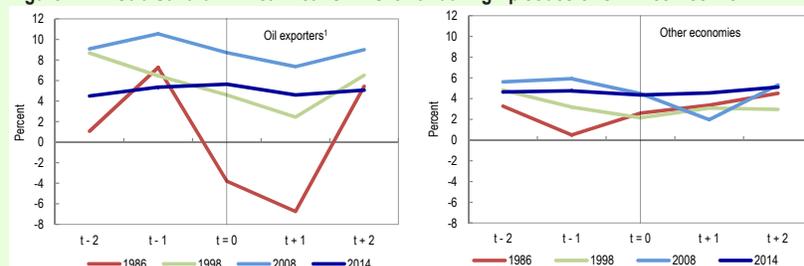
<sup>3</sup> South Africa’s GDP growth fell from 2.7 percent in 1997 to 0.5 percent in 1998, recovering to 2.4 percent in 1999. The sharp deceleration in 1998 reflected the contagion effect of the Asian crisis and the turmoil in the financial markets (OECD/AfDB 2002).

- In 2009, GDP growth decelerated sharply in both groups of countries (Figure 1.1.2). This largely reflects the effect of the 2008 global crisis, especially among middle-income countries and particularly in South Africa.<sup>4</sup>
- After 2014, under the baseline assumptions (see IMF 2015b), the expectation is that real GDP growth in oil exporters and elsewhere in the region will decline somewhat in 2015 before recovering slightly over the medium term.

*Fiscal balances generally deteriorated among oil exporters (especially in 2009).* The fiscal deterioration among oil-exporting countries during episodes of oil price decline was substantial (Figure 1.1.3, left panel) relative to other economies in the region (Figure 1.1.3, right panel). The observed deterioration of the fiscal balance during the 1986 episode in non-oil economies for the most part reflected the fiscal deterioration in South Africa (about 1.5 points of GDP from 1986 to 1987), but also in Burundi and Lesotho (about 6 percentage points of GDP in each case); a total of 15 countries in this group saw fiscal improvement in the aftermath of the oil price decline. Conversely, as a result of countercyclical policies implemented during the global crisis of 2008–09, fiscal balances deteriorated across the board after 2008.<sup>5</sup> Finally, under the baseline assumptions, fiscal balances are projected to deteriorate for oil exporters and improve for other economies in 2015–16.

*The expected effects of the most recent decline in oil prices is anticipated to be more moderate than in previous episodes.* As discussed extensively in previous issues of this publication, many countries in sub-Saharan Africa are less dependent on commodities, with more diversified economies than previously perceived. At the same time, the region has become more integrated into global trade and has benefited from increased access to global financing. This reflects in part more solid fiscal positions across the region—some of which have benefited from debt relief—and more modern monetary policy frameworks geared toward fighting inflation and less subject to political pressures, with civil unrest becoming less common.

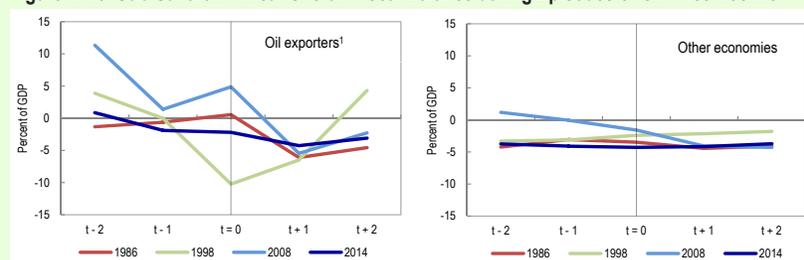
**Figure 1.1.2. Sub-Saharan Africa: Real GDP Growth during Episodes of Oil Price Decline**



Source: IMF, World Economic Outlook database.

<sup>1</sup> The aggregation does not include South Sudan, whose figures are subject to large swings.

**Figure 1.1.3. Sub-Saharan Africa: Overall Fiscal Balance during Episodes of Oil Price Decline**



Source: IMF, World Economic Outlook database.

<sup>1</sup> The aggregation does not include South Sudan, whose figures are subject to large swings.

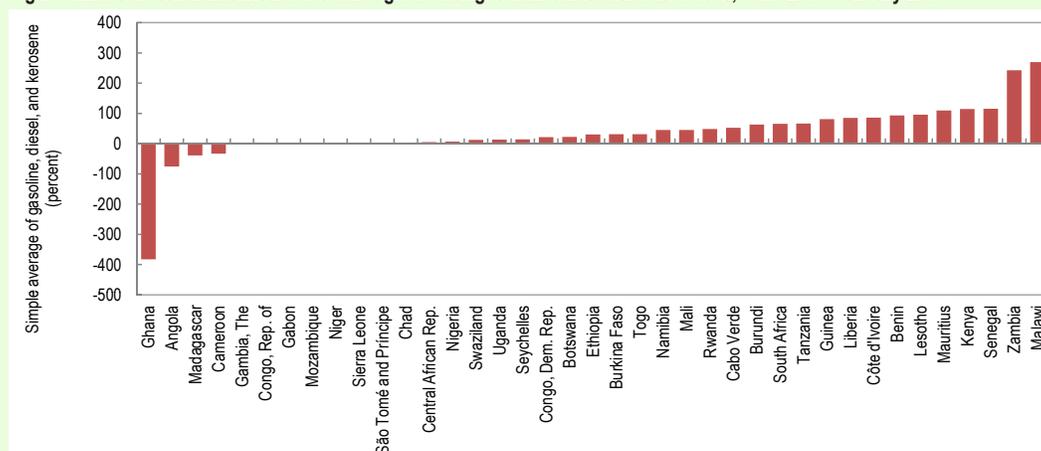
<sup>4</sup> Growth among non-oil exporting countries accelerated rapidly between 2002 and 2007 (not shown). This took place at a time when the global prices of other commodities rose steadily (Figure 1.1.1). A similar observation applies to 1986–89.

<sup>5</sup> See *Regional Economic Outlook: Sub-Saharan Africa*, April 2011.

### Box 1.2. Retail Gasoline Prices in Sub-Saharan Africa: The Impact of Lower International Fuel Prices

*In sub-Saharan African countries fuel prices are set by governments (either on a discretionary basis or by automatic adjustment formulas) or by the market. Sub-Saharan African countries have reduced fuel prices in response to a sharp fall in international fuel prices, but the extent of the pass-through has been partial and mostly limited to oil importers, and has varied across fuel types. In this context, pretax and posttax fuel subsidies have fallen significantly, particularly for gasoline. This is primarily the case for a handful of instances where subsidy reforms have been undertaken in recent months.*

Figure 1.2.1. Sub-Saharan Africa: Pass-Through of Changes in International Fuel Prices, June 2014–January 2015



Sources: Country authorities; and IMF staff calculations.

*The pass-through of the recent sharp fall in international fuel prices in the region has been partial and largely limited to oil importers (Figure 1.2.1).*

- A survey of fuel prices in sub-Saharan Africa suggests that the substantial decline in international fuel prices has resulted in retail prices falling in most countries between June 2014 and early 2015.<sup>1</sup> This is despite the fact that in sub-Saharan Africa, only about 35 percent of countries allow automatic adjustment of retail prices, whereas the others set prices administratively.
- The pass-through thus far has been partial and almost entirely limited to oil importers. Overall, the median pass-through coefficient (defined as the absolute change in domestic retail prices divided by the absolute change in international prices, both in domestic currency) was only 31 percent between June 2014 and early 2015.<sup>2</sup> Splitting the sample into oil-importing and -exporting countries yields pass-through coefficients of 45 percent and 0 percent, respectively. This is evidence of the differences in the pass-through behavior across those two groups of countries, as most oil-exporting countries have not changed administered gasoline prices over that period.

This box was prepared by Mauricio Villafuerte with assistance from Cleary Haines and Sebastian Corrales.

<sup>1</sup> International fuel prices have declined from US\$0.7–\$0.8 per liter between early 2011 and mid-2014 to about US\$0.4 per liter by the end of 2014.

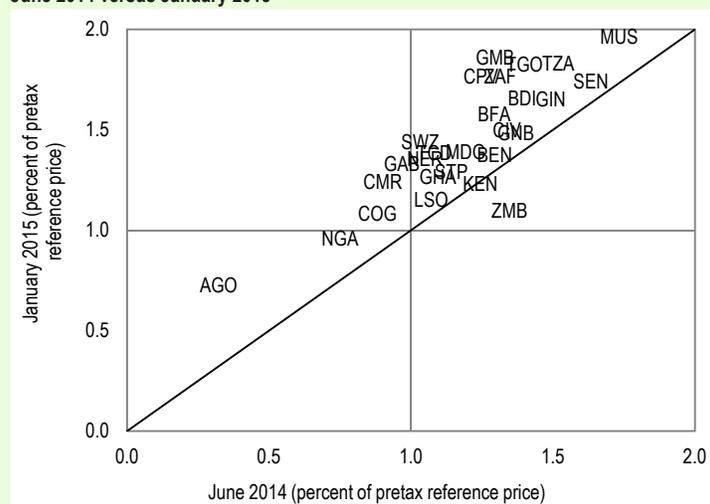
<sup>2</sup> Based on a simple average of gasoline, diesel, and kerosene.

- The pass-through of the fall in gasoline prices has been smaller than for diesel and kerosene (a median of 24 percent against 40 percent for the latter two).
- In some countries—Angola, Cameroon, Ghana, and Madagascar—fuel prices have increased in the context of domestic fuel pricing reforms.

*Fuel subsidies (taxes) have fallen (increased) between mid-2014 and early 2015.* Information on the detailed price structure has been used to assess the extent to which retail prices are set at cost-recovery (for example, transportation, distribution, and profit margins) levels. This analysis yields a number of results.

- By January 2015, in all countries except Angola and Nigeria (Figure 1.2.2), retail fuel prices covered all supply costs (that is, CIF import price, transportation and distribution costs, and profit margins). This represents an improvement over June 2014 when in a number of countries retail prices did not cover all supply costs.
- The analysis, though, does not include taxes in calculating the cost-recovery price. A more stringent “posttax” analysis—which adds the sub-Saharan African average of gross tax per liter (\$0.34) to the cost-recovery price—implies that, on an annualized basis, fuel subsidies (taxes) fell (increased) by an average of 0.8 percent of GDP. Gasoline subsidies account for half of that value because of the more limited pass-through to gasoline prices. At January prices, in an illustrative exercise using an average tax for the region, about 55 percent of sub-Saharan African countries are estimated to be subsidizing domestic fuels. However, only in oil exporters do subsidies amount to more than 1 percent of GDP.

**Figure 1.2.2. Sub-Saharan Africa: Average Actual Gasoline, Diesel, and Kerosene Price, June 2014 versus January 2015**



Sources: Country authorities; and IMF staff calculations.  
Note: See page 70 for list of country acronyms.

### Box 1.3. The Determinants of Sovereign Spreads

Strong growth and good macroeconomic policy implementation created the conditions that allowed sub-Saharan Africa's sovereign international bond issuance to grow significantly in the last decade. At the same time, ample global liquidity has drawn the attention of international investors in search of yield and portfolio diversification. An important question that arises in this regard is whether or not sub-Saharan African countries' international bonds have been priced favorably relative to emerging markets outside sub-Saharan Africa.

This question is addressed through an empirical investigation of the relevant macroeconomic fundamentals, and global liquidity and risk factors that determine sovereign spreads. The analysis is based on a panel study of 57 frontier market and middle-income countries over the period 2009–2014.<sup>1</sup> The estimated specification is as follows, where  $i$  and  $t$  are the country and period indices, respectively:

$$\ln(\text{Spread})_{it} = \alpha + \beta_0 VIX_{t-1} + \beta_1 (\text{TermPrem})_{t-1} + \beta_2 (\text{Funding Cost})_{t-1} + \beta_3 \Delta(\text{Oil Price})_t + \beta' X_{it-1} + c_i + \theta_t + \varepsilon_{it}$$

$\text{Spread}_{it}$  refers to the J.P. Morgan Emerging Market Bond Index Global spread,  $c_i$  is a country-specific dummy, and  $\theta_t$  is a period dummy. Among the global market variables,  $VIX$  is the Chicago Board Options Exchange Volatility Index,  $\text{TermPrem}$  is the U.S. term premium approximated by the difference between the ten-year and three-month yields,  $\text{Funding Cost}$  refers to the three-month Libor-OIS (London interbank offered rate–overnight indexed swap) spread, and  $\Delta(\text{Oil Price})$  is the change in the price of Brent. The  $X_{it-1}$  vector of macroeconomic fundamental variables includes the lagged values of real GDP per capita levels, international reserves, primary balance, public debt, the current account, a dummy for oil exporters and its interaction term with oil-price shocks.<sup>2</sup> We use an instrumental variables (IV) approach to avoid bias emanating from the inclusion of both the lagged dependent variable and country fixed effects (Nickell 1981). Our chosen IV is the second-lagged value of the VIX, which the first stage  $F$ -statistic suggests is a strong instrument.<sup>3</sup>

Coefficient estimates are presented in Table 1.3.1 and standardized coefficients of most determinants are presented in Figure 1.3.1. The regression results suggest that the set of global factors and macroeconomic fundamental variables listed above are all determinants of the levels of sovereign spreads. We find that higher global risk aversion (the VIX), higher funding costs that limit arbitrage opportunities of sovereign bonds trading market participants, and the U.S. term premium are positively associated with spreads, while oil prices, possibly reflecting the impact of stronger global demand conditions, are negatively correlated. As expected, we also find that stronger country-specific macroeconomic fundamentals are associated with lower sovereign spreads. The size of the coefficients of global factors suggests that country spread is most sensitive to changes in the VIX and to funding costs. Among macroeconomic fundamentals beyond the level of development captured by GDP per capita, country spreads are most sensitive to changes in reserves and public-debt-to-GDP ratio, as evidenced in Figure 1.3.1. In particular, a one standard deviation increase in reserves is associated with a 0.26 standard deviation reduction in spreads, whereas a similar increase in public debt increases spreads by 0.2 of one standard deviation.

<sup>1</sup> Our sample includes the following sub-Saharan African countries: Côte d'Ivoire, Gabon, Ghana, Kenya, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, and Zambia.

<sup>2</sup> Given that oil prices follow an AR(1) process, we can think of changes in oil prices as oil-price shocks. See Brückner, Chong, and Gradstein (2012).

<sup>3</sup> Although we include the first-lagged value of the VIX, our instrumentation strategy remains valid as long as the second-lagged value of the VIX affects current spreads only via its impact on the lagged dependent variable. We tested and found statistically insignificant the direct effect of the second-lagged value of the VIX, once the first-lagged value is included.

Table 1.3.1. Estimation of Sovereign Spreads

	(1) Spreads	(2) Spreads
Log of spread (lag1)	0.516*** (0.116)	0.519*** (0.115)
VIX (lag1)	0.006*** (0.002)	0.006*** (0.002)
U.S. term premium (lag1)	0.043*** (0.010)	0.043*** (0.010)
LIBOR-OIS (U.S. dollars; lag1)	0.272*** (0.067)	0.272*** (0.067)
Oil price shock	-0.006*** (0.000)	-0.005*** (0.001)
Log of GDP per capita (lag1)	-0.474*** (0.146)	-0.450*** (0.135)
Current account balance (lag1)	-0.004*** (0.001)	-0.004*** (0.001)
Reserves (lag1)	-0.010*** (0.002)	-0.009*** (0.002)
Gross public debt (lag1)	0.004*** (0.001)	0.004*** (0.001)
Inflation (lag1)	0.005*** (0.001)	0.005*** (0.001)
Primary balance (lag1)	-0.006** (0.002)	-0.005** (0.002)
Oil exporter * oil price shock (lag1)		-0.004*** (0.001)
Observations	3167	3167
Countries	57	57
Year fixed effects	YES	YES
Country fixed effects	YES	YES
First stage <i>F</i> -statistic	35.07	35.17

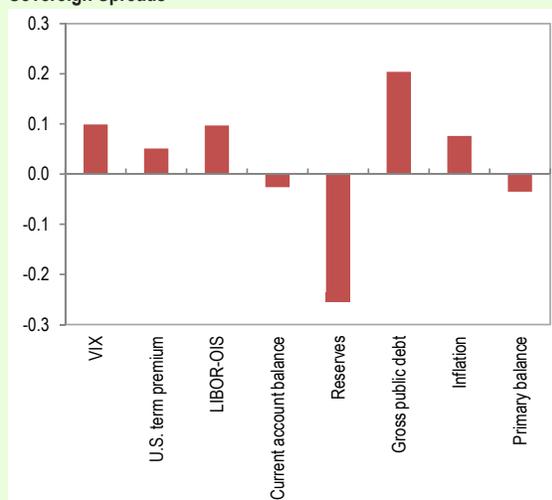
Source: IMF staff calculations.

Note: Standard errors in parentheses. \* indicates significance at 10 percent, \*\* at 5 percent, and \*\*\* at 1 percent.

(continued)

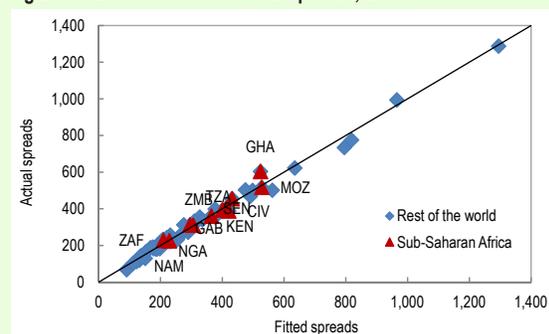
**Box 1.3. (continued)**

**Figure 1.3.1. Standardized Coefficients of the Determinants of Sovereign Spreads**



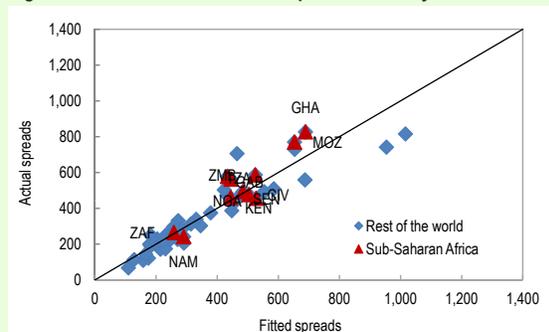
Sources: Bloomberg, L.P.; and IMF staff calculations.  
 Note: VIX = Chicago Board Options Exchange Volatility Index; LIBOR-OIS = three-month London interbank offered rate–overnight index swaps.

**Figure 1.3.2. Fitted versus Actual Spreads, 2014**



Sources: Bloomberg, L.P.; and IMF staff calculations.  
 Note: See page 70 for list of country acronyms.

**Figure 1.3.3. Fitted versus Actual Spreads, January 2015**



Sources: Bloomberg, L.P.; and IMF staff calculations.  
 Note: See page 70 for list of country acronyms.

Given the recent developments in oil prices, we also estimate an alternative specification to differentiate between oil exporters and oil importers (Table 1.3.1, column 2). We find that movements in oil prices have different-sized effects on sovereign spreads depending on whether a country is an oil exporter or importer. In particular, our results suggest that an increase in oil prices is associated with lower sovereign spreads for both groups of countries, but with the effects being twice as strong for oil exporters.

Using these estimates we compare fitted and actual spreads for each sub-Saharan African economy in our sample to analyze if their market bond prices were in line with their fundamentals. Figure 1.3.2 presents this comparison for sub-Saharan African sovereign spreads in 2014 and Figure 1.3.3 for January 2015. For average spreads in 2014, we observe negative misalignments, except in Ghana, with spreads being slightly tighter than would be suggested by the empirical model. This could be the consequence of the high global liquidity and a stronger interest of international investors, together with the fact that the economic outlook for more mature emerging markets has been deteriorating more quickly than for frontier market sovereigns. The positive misalignment of Ghana likely reflected the concerns about the fiscal stance and low external reserves, as well as renewed pressures on its currency. For January 2015, we observe a wider dispersion of spreads relative to the fitted model.