

1. Multispeed Growth

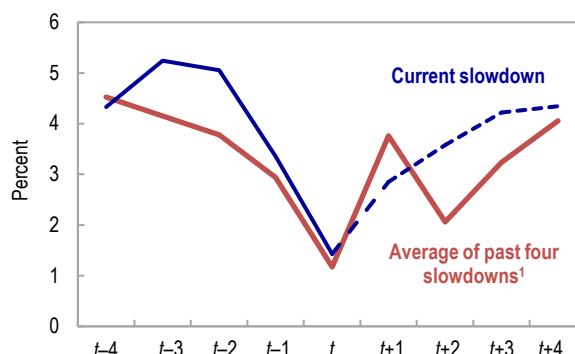
Against the backdrop of lower commodity prices and a less-supportive global environment, economic activity in sub-Saharan Africa has decelerated sharply. The region's output is only expected to expand by 1.4 percent in 2016, the worst growth performance in more than 20 years, and the loss in momentum over the last two years has been on par with the deep slowdowns of previous decades (Figure 1.1). While a modest recovery is in the cards for next year, to slightly less than 3 percent, even this will only be feasible provided there is prompt action to address the significant macroeconomic imbalances and heightened policy uncertainty prevalent in several of the region's largest economies.

Yet, more than ever, the aggregate growth number belies considerable heterogeneity within the region. In the broadest of terms, the picture is more one of two Africas: in one camp are some 23 commodity-exporting economies, including the three largest in the region (Angola, Nigeria, South Africa), which are under severe economic strains and are depressing the overall growth figure; in the other camp are the remaining 22 economies in the region, which, for the most part, continue to sustain reasonably high growth (Figure 1.2). More specifically:

- In recent months, the near-term prospects of oil exporters in particular have worsened, notwithstanding the modest uptick in oil prices. The adverse effects of the decline in prices of 2014–15, first mainly felt within the oil-related sectors, have spread to the entire economy, leading to a more entrenched slowdown. Consequently, output among oil exporters is expected to shrink by 1.3 percent this year, weighed down by a deep contraction in Nigeria, but also in Chad, Equatorial Guinea, and South Sudan, while Angola will barely escape recession.

- Other resource-intensive countries are struggling too. In South Africa, output expansion stalled early this year, hampered by low commodity prices and poor confidence. Likewise, countries such as the Democratic Republic of Congo, Ghana, Zambia, and Zimbabwe are decelerating sharply or stuck in low gear.
- By contrast, non-resource-intensive countries continue to perform well. Growth for this group as a whole is expected at 5½ percent this year—just below the average 6 percent

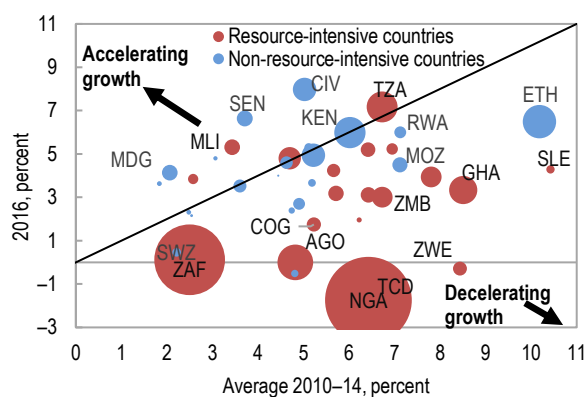
Figure 1.1. Sub-Saharan Africa: Real GDP Growth during Current and Past Economic Slowdowns



Source: IMF, World Economic Outlook database.

¹ GDP growth rates are averaged across corresponding years of the previous episodes of rapid slowdown centered around 1977, 1983, 1992, and 2009. The current slowdown is centered around 2016.

Figure 1.2. Sub-Saharan Africa: Real GDP Growth



Source: IMF, World Economic Outlook database.

Note: Size of the bubble denotes weight in regional GDP. See page 90 for country abbreviations.

This chapter was prepared by a team led by Céline Allard, comprising of Francisco Arizala, Jesus Gonzalez-Garcia, Cleary Haines, and Monique Newiak.

experienced during 2000–14—as they benefit from a lower oil import bill and an improved business environment while strong infrastructure investment continues to help sustain the growth momentum. Countries such as Côte d’Ivoire and Senegal in West Africa, or Ethiopia and Kenya in East Africa, are still foreseen to grow at a 6 to 8 percent clip in the next couple of years. However, this high growth is unlikely to have positive spillovers on the hardest-hit countries, as intraregional economic and financial linkages tend to remain limited.

Worryingly, in the face of the strong financial and economic pressures, the policy response in many commodity exporters—and especially among oil exporters—has, by and large, been slow and piecemeal. Where it has taken place, fiscal adjustment has been enforced by the lack of financing and effected mainly through across-the-board spending compression rather than targeted cuts and/or durable revenue measures. This has come with strong pressures on government deposits and foreign exchange reserves, unsustainable policies such as domestic arrears accumulation and central bank financing, as well as a rapid rise in public debt in some cases. On the external side, in oil-exporting countries with flexible regimes, exchange rates have only been allowed to adjust reluctantly and insufficiently, and the process has been accompanied by recourse to quantitative restrictions. With the overall direction of policies thus highly uncertain, the effect of the much delayed adjustment has been to deter investment and stifle new sources of growth. More broadly, the concern now is that the damage to the economy in those countries is becoming ingrained—prolonging further the effect of an already long-lasting shock and making a rebound back to strong growth rates an even more distant prospect.

Accordingly, adjustment needs to be effected in countries hardest hit, especially oil exporters, commensurately to the urgency of the situation, and based on a comprehensive and internally consistent set of policies. This implies fully allowing the exchange rate to absorb external pressures for countries outside monetary unions, reestablishing macroeconomic stability—including by tightening

monetary policy where sharp increases in inflation following currency depreciation are leading to second-round effects—and focusing as much as possible on growth-friendly elements of fiscal consolidation.

Is there any scope to ease the adjustment burden among these countries? A countercyclical supportive stance would of course be ideal. But with foreign exchange reserves and public deposits limited, fiscal deficits already wide, and public debt rapidly accumulating, the scope to ease the adjustment path will critically depend on the availability of new financing, ideally on concessional terms. Coupled with a credible medium-term adjustment package, this could help ease the near-term drag on growth and reduce the uncertainty that is holding back private investment.

As for countries that are performing well, the current high growth needs to be used to rebuild buffers when times are still comparatively favorable. In particular, in an environment of tighter and more volatile financial markets, striking the right balance between much-needed developmental spending and hard-won debt sustainability remains paramount. While policy action is not as urgent as for countries hardest hit, debt has been on an upward trend in many of these countries, and, going forward, some fiscal consolidation appears warranted.

Finally, across the region, structural reforms are required to complement macroeconomic policies, so as to set growth on a sustainable footing and preserve competitiveness. In particular, measures to ensure reliable sources of fiscal revenue and efficient public spending would go a long way toward protecting against untenable increases in public debt. Domestic revenue mobilization measures should take precedence to reduce overreliance on commodity-related revenue. In addition, although some expenditure adjustments and rationalization will be needed—and have indeed happened in some countries—overly abrupt cuts to productive capital spending should be avoided to support the diversification agenda that will be a prerequisite for the growth rebound where activity has slowed most markedly. Efforts to improve spending efficiency in general and trim down untargeted subsidies in

particular should also be pursued, while preserving social safety nets directed at the most vulnerable segments of the population.

The rest of Chapter 1 first documents the powerful external and domestic headwinds still at play. It then elaborates on the growing divergence of economic paths across the region, highlighting how the deep challenges faced by the hardest-hit countries are becoming entrenched, whereas strong growth patterns remain broadly unaltered among non-resource-intensive countries. The following sections show how growing financing difficulties are forcing a delayed policy adjustment in countries under the most stress. A final section presents the near-term outlook and the risks associated with the forecasts.

Against the backdrop of the fall in commodity prices and associated decrease in the terms of trade in many countries, Chapter 2 documents the evolution of exchange rate regimes in sub-Saharan African countries during the past 35 years and considers what bearing they have had on economic performance. It finds that fixed regimes have been associated with systematically better anchored inflation, but that countries with more flexible exchange rates have experienced higher growth over time. The analysis therefore highlights the need for accompanying policies to minimize these potential trade-offs, from structural reforms to strengthen growth and competitiveness in countries with pegged currencies to monetary policy frameworks that can better support price stability for countries with flexible regimes.

Turning to longer-term issues, Chapter 3 finds that sub-Saharan Africa is highly vulnerable to natural disasters—as evidenced by the severe drought that has recently affected most of eastern and southern Africa—and suffers large long-term economic damage from these episodes, exacerbated by low income and capacity levels and a large reliance of income on agriculture in most countries. With countries in the region already starting to see the impact of climate change and expected to be disproportionately affected by it over time, the chapter discusses a range of policy measures that can be implemented to enhance resilience and mitigate the impact of natural disasters.

STILL AN OVERALL DIFFICULT ENVIRONMENT

Continued Weak External Conditions

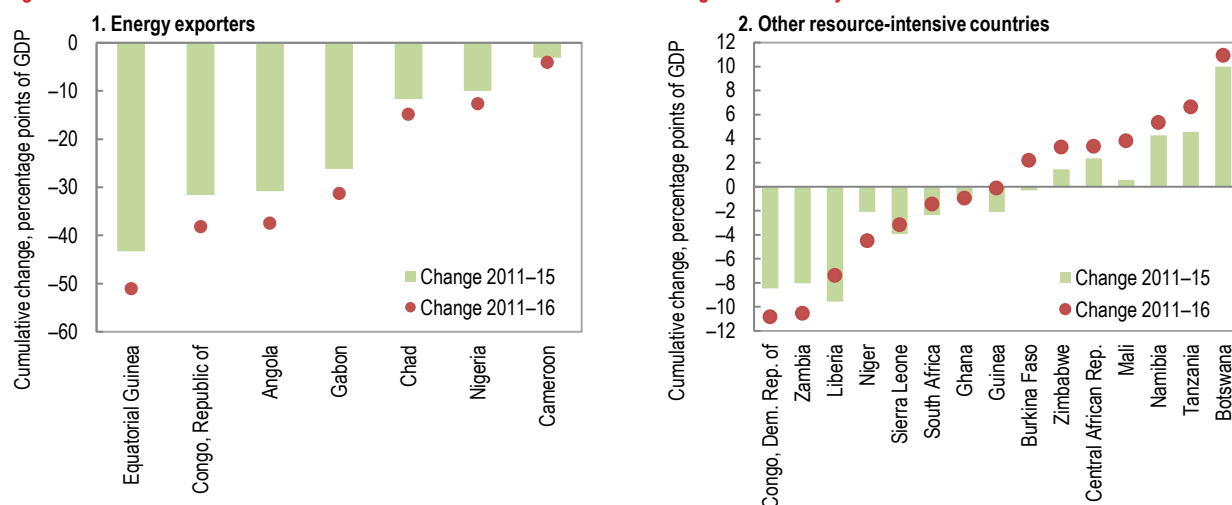
As explained in the October 2016 *World Economic Outlook*, global growth is expected to remain modest, slowing to 3.1 percent this year before recovering to 3.4 percent next year. In particular, among advanced economy trade partners, the recovery in the United States—where it had been the most robust—has lost some momentum recently, and uncertainty about the outlook in Europe has increased following the vote in the United Kingdom in favor of leaving the European Union. Meanwhile, China, while still experiencing solid expansion, is transitioning to a services- and consumption-based economy that is less intensive on commodity imports.

For sub-Saharan Africa, the main channel of transmission of this weak global environment continues to be through depressed commodity prices. As was highlighted in greater detail in the April 2016 issue of this report,¹ the realignment of commodity prices amounts to a formidable terms-of-trade shock for oil exporters in the region—cutting national income by as much as 15 to 50 percent of GDP since mid-2014—and has also severely affected other commodity exporters, such as the Democratic Republic of Congo, Liberia, and Zambia, and to a lesser extent Niger and Sierra Leone (Figure 1.3). And while these developments have been supportive for oil importers that do not rely much on nonrenewable resources for exports, especially in East and West Africa, many of these countries have also had to contend with tighter global financing conditions that have coincided with the decline in commodity prices.

Indeed, following the sharp slump that started in mid-2014, and despite a modest uptick more recently, commodity prices have stayed at low levels in an environment of muted demand, increased supply, and high inventories. With the commodity price index projected to recover only to 60 percent

¹ See Chapter 2, April 2016 *Regional Economic Outlook: Sub-Saharan Africa*, “Weathering the Commodity Price Slump.”

Figure 1.3. Sub-Saharan African Resource-Intensive Countries: Cumulative Change in Commodity Terms of Trade since 2011



Source: IMF staff calculations.

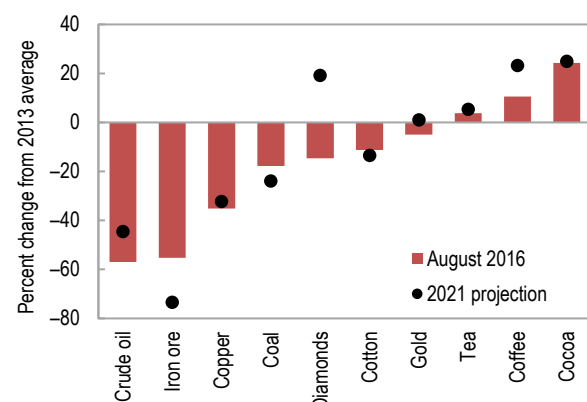
Note: For more details on the computation of commodity terms of trade, see Chapter 2 of the April 2016 *Regional Economic Outlook: Sub-Saharan Africa*.

of its 2011 peak by 2021, prices for most natural resources produced by the region are expected to remain at relatively depressed levels for the foreseeable future (Figure 1.4).

As this new reality of low prices sinks in, the resulting sharp decline in sub-Saharan African exports to China—now the largest single-country trading partner for the region—epitomizes this realignment both in terms of price and demand for natural resources (see Kolerus, N’Diaye, and

Saborowski 2016). The slump in the value of exports to that country for the 23 resource-intensive countries in the region ranged from 40 to 50 percent in 2015, following a very rapid expansion in the early 2010s on the back of China’s increasing appetite for commodities at the time (Figure 1.5). The decline in commodity prices has also triggered a contraction in the value of resource-intensive countries’ exports to other regions of the world, although of a lesser magnitude.

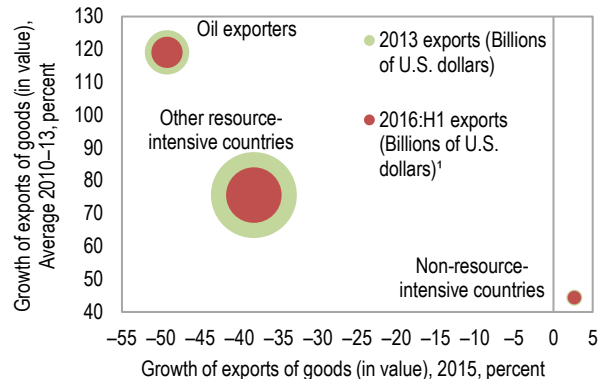
Figure 1.4. Selected Commodity Prices, Change since 2013



Sources: IMF Commodity Price System; IMF Global Assumptions.

Note: Besides oil, some of the main commodities exported by the region are copper (Democratic Republic of Congo and Zambia), iron ore (Liberia, Sierra Leone, and South Africa), coal (Mozambique and South Africa), gold (Burkina Faso, Ghana, Mali, South Africa, and Tanzania), and platinum (South Africa).

Figure 1.5. Sub-Saharan Africa: Annual Growth of Exports to China, 2010-13 versus 2015



Source: IMF, Direction of Trade Statistics.

Note: See page 86 for country groupings table.

¹ Data through May 2016.

Domestic Headwinds as Well

Compounding these unfavorable external developments, the region has been subject to negative exogenous shocks on the domestic front:

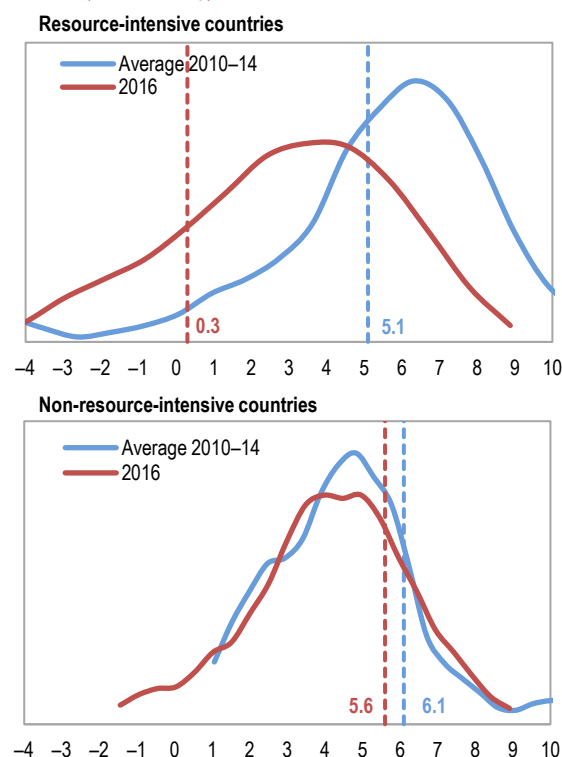
- In the wake of an unusually strong El Niño pattern, parts of eastern and southern Africa have been experiencing the worst drought in 35 years, sharply cutting agricultural production, while putting millions in a situation of food insecurity. The most affected countries include Ethiopia, Lesotho, Malawi, Mozambique, South Africa, and Zimbabwe—in some of which the ensuing macroeconomic challenges are considerable—and to a lesser extent Burundi and Rwanda. In addition, the drought significantly disrupted hydroelectric power generation in Zambia. Unfavorable weather patterns have also affected countries in other parts of the region, such as Angola and Côte d'Ivoire, while Guinea, Liberia, and Sierra Leone are facing the challenges of recovery after the Ebola pandemic. These events highlight the high vulnerability of the region to natural disasters, as elaborated in Chapter 3.
- The security situation has deteriorated in some countries. Following coordinated actions by the national authorities, attacks from Boko Haram have declined from their early 2015 peak, but still cause considerable loss of life and strains on economic activity and public finances of affected countries (Cameroon, Chad, Niger, Nigeria). Insurgent activities in the Niger Delta region have also significantly disrupted oil production in Nigeria. Meanwhile, the security situation remains fragile in Burundi and the Central African Republic; it has seriously deteriorated in South Sudan, threatening a fragile peace agreement; and the political environment is getting increasingly tense in Zimbabwe. Terrorist attacks have reemerged in Mali and now threaten a broader set of countries in West Africa, including Côte d'Ivoire—weighing on fiscal accounts. It is, however, important to keep in perspective that the incidence of civil conflict in the region remains substantially lower than in previous decades.

A TALE OF TWO AFRICAS

Shifting Growth Patterns

As the new external environment has affected the region's countries differently, based on the structure of their economy (namely, oil exporters versus importers and resource- versus non-resource-intensive countries), the upshot has been increasingly divergent economic paths across sub-Saharan Africa. While the positive dynamics of the 2010–14 period were generally broadly shared across various types of countries, a dichotomy of growth patterns has now emerged (Figure 1.6). On the one hand, the strong growth momentum of non-resource-intensive countries—in the likes of Côte d'Ivoire, Kenya, or Senegal, to name a few—remains undiminished. On the other, growth rates among nonrenewable commodity exporters have shifted sharply downward, with the median

Figure 1.6. Sub-Saharan Africa: Rate of Growth, Average 2010–14 and 2016. (Kernel Density)



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

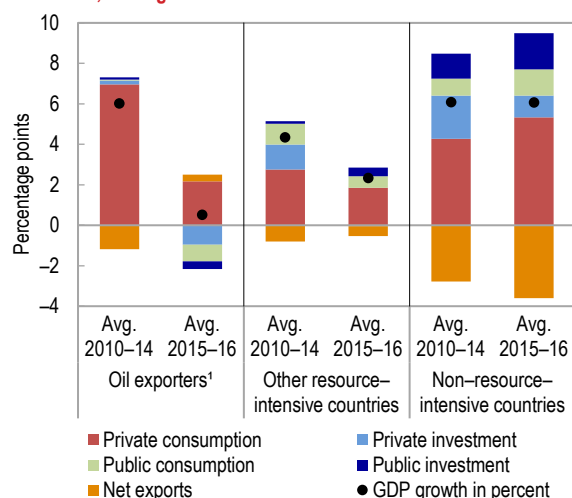
Note: There are 23 resource-intensive countries in the region and 22 non-resource-intensive countries. Dotted lines correspond to weighted average growth for each period. See page 88 for country groupings table.

country in that group seeing its growth slow from 6.2 percent on average during 2010–14 to just 3.2 percent this year.

While this contrasting pattern has been unfolding since the slump in commodity prices accelerated in the second half of 2014, it has been amplified over time as the initial shock has been transmitted to all sources of demand in the affected countries (Figure 1.7).

- Among oil exporters, the decline in oil prices and income generated substantial shortfalls in oil-related fiscal revenue and triggered cuts in public spending. These, in turn, have been a source of demand weakness, subtracting as much as 1¼ percentage points of growth in 2015–16. But the negative effects have not stopped there and have in fact been much deeper: with a contractionary fiscal stance, lower export income, and rising inflation, private consumption has been sharply impacted. Its growth contribution of close to 7 percentage points during 2010–14 will decline to 2¼ percentage points in 2015–16—accounting in fact for four-fifths of the GDP growth deceleration. The only mitigating factor has been the substantial import compression brought by the movements in exchange rates

Figure 1.7. Sub-Saharan Africa: Contribution to Growth by Sources of Demand, Average 2010–14 and 2015–16



Source: MF, World Economic Outlook database.

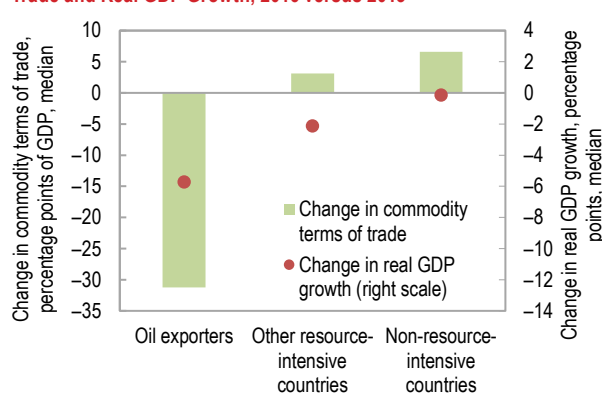
Note: See page 88 for country groupings table.

¹ Excludes Angola, as there are no available data on the decomposition of growth by sources of demand for this country.

and decline in domestic demand, especially import-intensive public investment—with the drag from net exports moderating by 1½ percentage points since the oil price shock.

- Similar trends, although with less dramatic swings, are at play among other resource-intensive countries—exacerbated in some places by structural bottlenecks and policy uncertainty (South Africa) or the cooling effects of fiscal consolidation (Ghana). Notably, private investment supported growth to the tune of 1¼ percentage points up to 2014, in particular as mining facilities were being developed, but has since all but evaporated. By contrast, public spending has proved somewhat more resilient.
- Conversely, the growth patterns observed during 2010–14 among non-resource-intensive countries have been reinforced, with strong momentum from public investment (related to large infrastructure projects), buoyant private consumption, and an increasing counteracting drag from net exports (as accelerating domestic demand also boosts imports). However, it is important to bear in mind that the commodity price slump has represented a windfall for these countries as it lowered their oil import bill—without that positive impulse, it is likely that these countries would have decelerated slightly (Figure 1.8). Their growth pattern has also been accompanied by large fiscal and external deficits, as discussed further below.

Figure 1.8. Sub-Saharan Africa: Change in Commodity Terms of Trade and Real GDP Growth, 2016 versus 2013



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

Note: See page 88 for country groupings table.

Spreading Pains Among the Most Affected Countries

For the hardest-hit countries, no sector of activity has been spared (Figure 1.9).

- Among oil exporters, oil production had already been on a slightly declining path prior to 2014, as mature oil fields were coming to the end of their life cycle in Equatorial Guinea and Nigeria. In 2015, that trend was in fact partly mitigated by the strategy of some oil exporters, such as Cameroon, to ramp up production to offset the drop in prices. However, the historic income shock that the oil price slump represented for those countries has increasingly taken a toll on the other sectors of the economy. Hitherto booming construction sectors have collapsed under the combined effect of cuts in public projects and declining private confidence. Knock-on effects have found their way to fledgling manufacturing sectors, especially where shortages in foreign exchange have hampered imports of inputs and ramped up costs (Angola, Nigeria). Finally, declining household purchasing power and corporate profitability have fed into a sharp deceleration among services—their contribution to growth of 3 percentage points on average during 2010–14 is expected to shrink to about

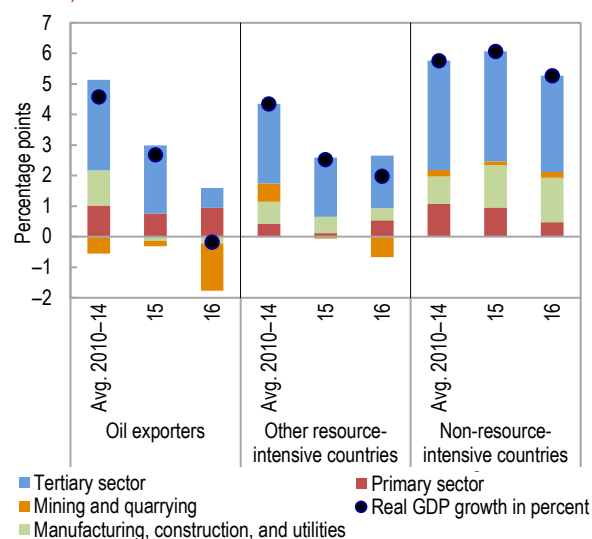
½ percentage point in 2016. These developments are likely to have long-lasting effects: businesses are typically harder to restart once they have reached the point of bankruptcy—raising the specter of a protracted period of well-below-potential growth in the years to come.

- The cooling effects from lower commodity prices have also been at play throughout the economy among other resource-intensive countries. The slowdown, however, has been of a lower scale, as the industry and service sectors have proved more resilient to a shock that has been, relatively speaking, less dramatic.
- Among non-resource-intensive countries, the sharp drop in the contribution of the agricultural sector projected in 2016 is attributable to the severe effects of the drought in affected countries, in particular Ethiopia. Other sectors have remained unaffected, however, and, if anything, the manufacturing, construction, and utility sectors have been playing an increasing role in the economy, pointing to encouraging signs of diversification.

As the effects of the shocks permeate the entire economy in the most affected countries, other, more lagging, macroeconomic indicators have also started to take a turn for the worse.

For one, rising inflation in many of the struggling countries is eroding real income, as it has reached double-digit levels not seen in some countries since the early 2000s (Figure 1.10). In many cases, the increase has reflected pass-through of large currency depreciation (Mozambique, South Sudan, Zambia), combined with foreign exchange shortages (Nigeria), higher domestic fuel prices following fuel subsidy reforms and loose monetary policy (Angola), or an increase in administrative prices and a past lax fiscal stance (Ghana). While an increase in inflation is almost inevitable as exchange rates depreciate, it is critical to avoid second-round effects leading to inflation disanchoring, especially where macroeconomic imbalances persist and where price increases have been the largest. The acceleration has been particularly steep among oil exporters. Angola's inflation has spiked to

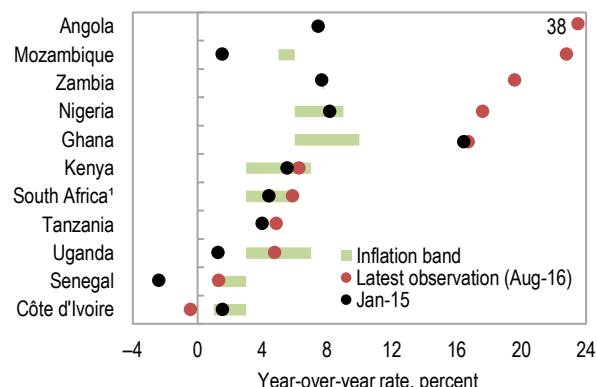
Figure 1.9. Sub-Saharan Africa: Sectoral Contributions to Real GDP Growth, 2010–16



Source: IMF, African Department database.

Note: See page 88 for country groupings table.

Figure 1.10. Selected Sub-Saharan African Countries: Inflation



Sources: Country authorities; and IMF, International Financial Statistics.

Note: For Mozambique data are for July 2016.

¹ Reflects Consumer Price Index inflation for all urban areas, which is the inflation that the South African Reserve Bank targets.

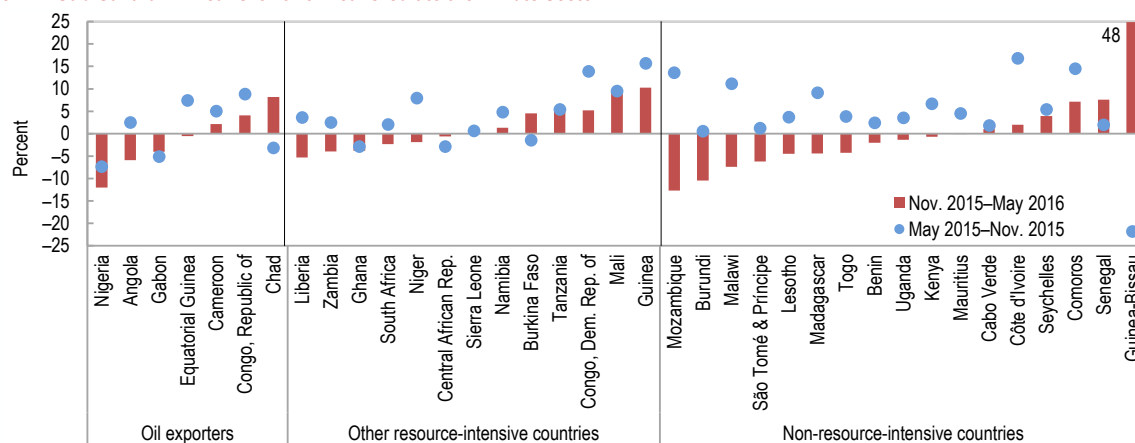
38 percent, almost double the rate from 6 months ago and from 7½ percent at end-2014. Similarly, in Nigeria, inflation is now above 17 percent, up from 9 percent in 2015. Conversely, in Eastern Africa, a strong monetary policy reaction to inflationary pressures last year has helped push inflation back into central banks' target ranges, and inflation remains muted in the West and Central African monetary unions (WAEMU and CEMAC).

In the context of lower growth prospects, rising inflation, and increasing challenges on banking sectors, credit to the private sector is also rapidly slowing where economic prospects have weakened the most—even contracting in real terms in countries such as Angola, Gabon, Ghana, Nigeria, and Zambia (Figure 1.11). Moreover, potential

spillovers to banking sectors in the rest of the region need to be closely monitored where pan-African banks have significant operations, such as in Nigeria. Nonperforming loans have also been rising, in particular among oil exporters (Republic of Congo, Nigeria) and other resource-intensive countries (Ghana, Tanzania). Separately, and as elaborated further below, several countries, such as Angola, have seen a withdrawal in correspondent banking relationships, putting in question the stability of national financial systems in the most affected countries and seriously complicating trade.

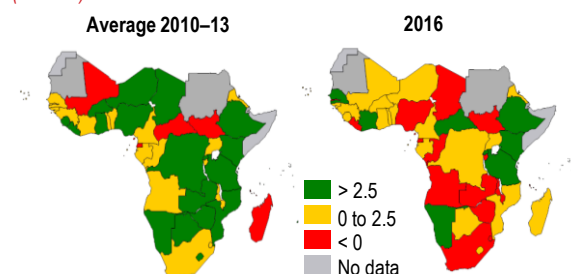
Overall, the contrast in economic realities across the region is best summed up by looking at GDP per capita developments. The median country in the region will still experience a 1¾ percent increase in GDP per capita growth this year. However, weighed down by 15 countries where per capita growth will be negative, including the three largest (Angola, Nigeria, and South Africa), the region's average per capita GDP will *contract*, by 0.9 percent, for the first time in 22 years (Figure 1.12). The weak growth outlook is also taking its toll on job creation, with unemployment stuck at more than 25 percent in South Africa and now reaching 13 percent in Nigeria, up from 7½ percent in early 2015. Beyond the deep macroeconomic implications of the slowdown, these developments will also adversely affect social outcomes, potentially reversing past improvements in living standards for a wide range of the population—further emphasizing the urgent need to tackle the current economic difficulties.

Figure 1.11. Sub-Saharan Africa: Growth of Real Credit to the Private Sector



Source: IMF, International Financial Statistics.

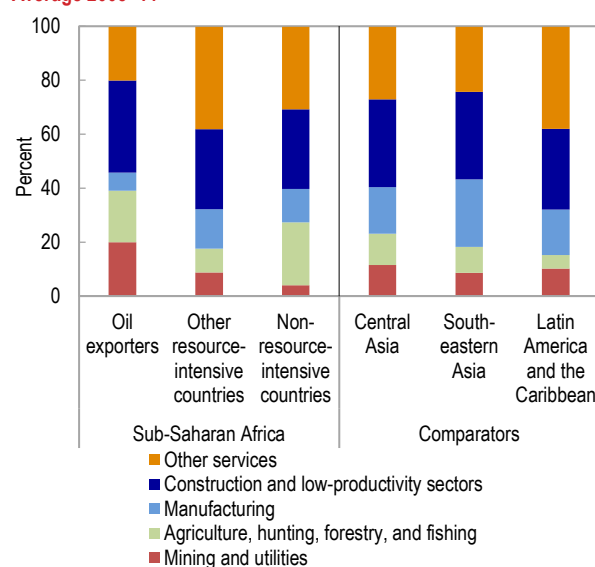
Figure 1.12. Sub-Saharan Africa: Real GDP per Capita Growth (Percent)



Source: IMF, World Economic Outlook database.

An additional dimension to this picture of spreading economic pain among hard-hit countries is that it is occurring where diversification is least advanced. This feature is most marked among oil exporters, where the extractive and agricultural sectors combined still account for about 40 percent of GDP, the manufacturing sector remains underdeveloped, and other activities are tilted toward lower-productivity sectors such as construction, transportation, and retail sectors (Figure 1.13). Thus, in a context where all sectors of the economy are ailing, a rebound driven by new sources of growth will take even longer to materialize. That does not mean that the

Figure 1.13. Sub-Saharan Africa: Sectoral Shares of Real GDP, Average 2005–14



Sources: United Nations Statistics; and IMF staff calculations.

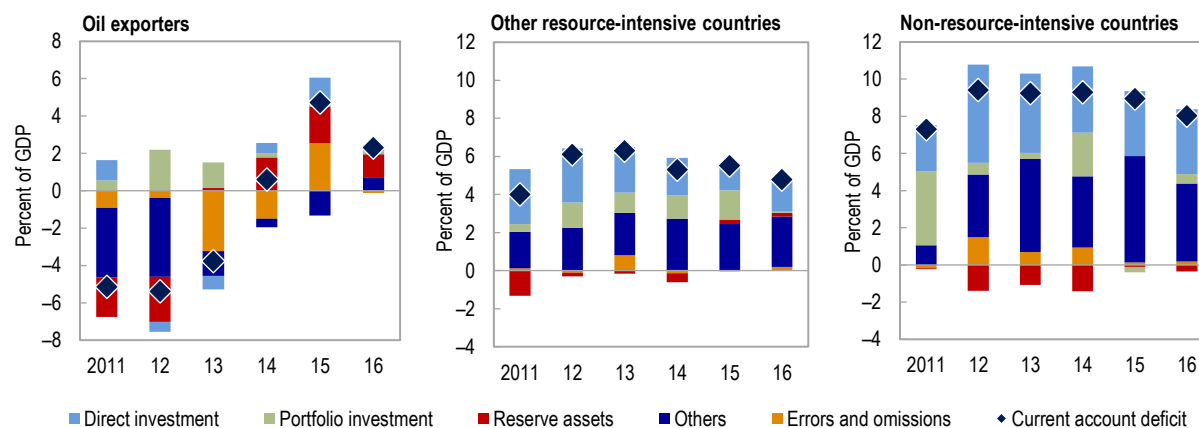
Note: Low productivity sectors include transport, storage, communication, wholesale and retail trade, and restaurants and hotels. See page 88 for country groupings table.

diversification agenda should not be reinvigorated, on the contrary—and it is indeed high on the authorities' plans in countries such as Angola and Nigeria. It should complement the comprehensive set of policies aimed at restoring macroeconomic stability—since diversification, especially when it translates into a wider variety of exports, provides the best insurance policy against negative shocks and a potent instrument to recover from them (Box 1.1).

IN SEARCH OF FINANCING

The consequences of this rapidly deteriorating outlook in many countries have been particularly manifest in their growing financing needs, given lower earnings from commodity exports. Indeed, the current account deficit for the region as a whole in 2015 widened to 5.9 percent, its largest level since the early 1980s and up from just 2.1 percent in 2013. Among oil exporters, it even switched from a *surplus* of 3¾ percent of GDP in 2013 to a *deficit* of 4¾ percent of GDP in 2015. At the same time, financing has been less forthcoming, and countries in most need have resorted to stopgap solutions that will not be sustainable over the longer run.

In particular, oil-exporting countries have financed almost ⅔ of their current account deficit by drawing on international reserves to the tune of 1½ percent of GDP each year since 2014 (Figure 1.14). At this stage, international reserves in the CEMAC have fallen by close to 9 percentage points of GDP between the end of 2013 and June 2016. Similarly, they have been declining in Angola and Nigeria since 2014 by, respectively, some 3 and 1¼ percent of GDP annually. They also decreased in half of the resource-intensive countries, among which are the Democratic Republic of Congo, Guinea, and South Africa. In Mozambique, reserves are down by about 40 percent since mid-2014 on the back of decelerating export receipts and foreign direct investment, heavy intervention by the central bank, and a loss of donor support following the revelation of more than 10 percent of GDP in previously undisclosed foreign borrowing. Finally, in some countries, decreasing international reserve

Figure 1.14. Sub-Saharan Africa: Current Account Deficit and Sources of Financing, 2011–16


Source: IMF, World Economic Outlook database.

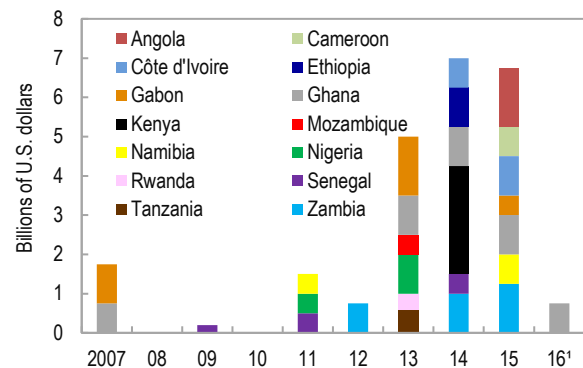
Note: Others includes items such as commercial bank financing from abroad and disbursements of loans to the government. See page 88 for country groupings table.

buffers have been cushioned by foreign exchange swaps between central banks and commercial or bilateral partners, foreign exchange forwards, or the drawdown of foreign currency deposits held abroad.

Meanwhile, some sources of external financing that had been rising in importance since the early 2010s now seem harder to access, although remittances have proved resilient.

- In contrast to the rapidly increasing trend since the late 2000s and to record issuances of Eurobonds in the region in the last two years, only Ghana among sub-Saharan African frontier market sovereigns has tapped international

markets so far this year (Figure 1.15).² In a general context of heightened global financial volatility, investors have generally demanded higher yields and are increasingly paying heed to worsening domestic fundamentals, making it difficult (and more expensive) for governments under the most stress to finance themselves externally (Box 1.2).³ As a consequence, while yields have generally come down from the double-digit spikes experienced in early 2016, they remain relatively high. For example, sovereign yields on secondary markets have risen 170 basis points in Ghana, and 310 basis points in Zambia since October 2014, to settle around 9 percent in August 2016; they rose from 5½ percent to 7½ percent in Gabon during the same period. By contrast, they have remained broadly unchanged, at between 5½ and 7 percent in countries where growth prospects are perceived to be better, such as Côte d'Ivoire, Kenya, or Senegal (Figure 1.16).

Figure 1.15. Sub-Saharan African Frontier Market Economies: International Sovereign Bond Issuances


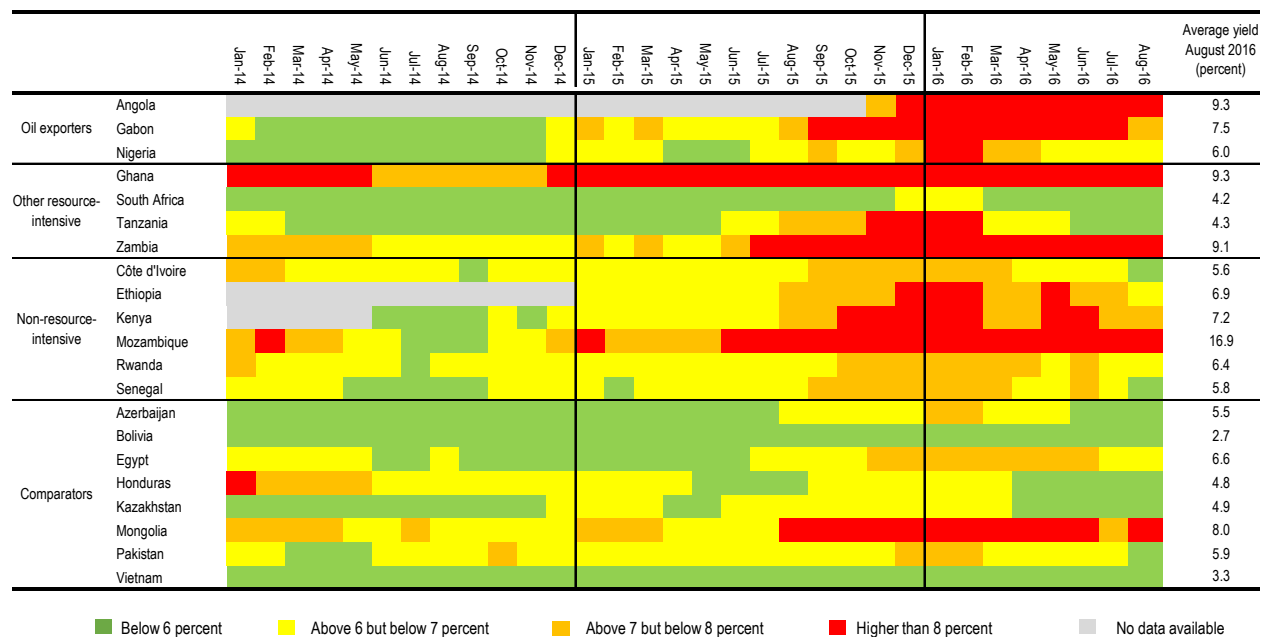
Source: Bloomberg, L.P.

¹ Up to mid-September 2016.

² South Africa, with emerging market status and more liquid financial markets, also issued an international 10-year bond this year at a yield of 4.9 percent. Mozambique's US\$700 million Eurobond, issued in April 2016, is excluded from the computation here as it was used to restructure some of the existing debt held by the state-owned tuna-fishing company.

³ Eurobonds now represent a nonnegligible share of total public debt stock in some sub-Saharan African frontier market economies, such as Gabon (48 percent), Namibia (32 percent), Côte d'Ivoire (26 percent), Zambia (24 percent), Ghana (16 percent), Senegal (15 percent), or Rwanda (13 percent).

Figure 1.16. Sub-Saharan African and Comparator Countries: Level of Bond Yields, 2014–16

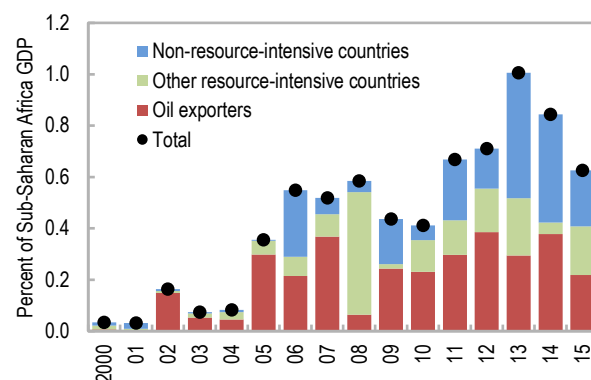


Source: J.P. Morgan.

Note: The thresholds were derived from the four quartiles of the distribution of yields over January 2014–August 2016 for sub-Saharan African countries.

- There is also preliminary evidence that loan commitments by China have decreased since their spike in 2013, and markedly so in 2015—although data for that year are still likely to be revised upward (Figure 1.17). The Republic of Congo and Mozambique saw official loans disbursed by China decrease by more than two-thirds in 2015 compared with 2014.⁴ In contrast, they were expanded significantly among countries of the East African Community (Kenya, Rwanda, Tanzania). This is consistent with the reorientation toward infrastructure- and industrialization-related financing articulated at the 6th Forum on China Africa Cooperation (FOCAC) held in December 2015. If that trend were to persist, it could reinforce the challenges faced by resource-intensive countries and exacerbate the dichotomy in growth momentum currently underway in the region.
- Remittances, conversely, have provided a stable source of financing to the region. Remittances from the rest of the world have been roughly stable at around 1½ percent of sub-Saharan Africa's GDP since 2010. For countries such as Comoros, The Gambia, Lesotho, Liberia, and Senegal, overall remittances (including flows from within sub-Saharan Africa) are in fact much higher, at above 10 percent of GDP,

Figure 1.17. Chinese Loans to Sub-Saharan Africa, 2000–15



Sources: China Africa Research Initiative; Brautigam and Hwang 2016. Note: Loans committed and/or disbursed as of June 2016. Upward revision to 2015 numbers is likely. See page 88 for country groupings table.

⁴ For Mozambique, the decrease in 2015 came as project implementation of loans signed earlier peaked in 2014.

as these countries tend to have large diasporas (Box 1.3). Similarly, remittances reportedly rose by more than 25 percent in Ethiopia during the last fiscal year, partly as the country was grappling with a severe drought. In addition to being a source of foreign exchange, remittances help to supplement the income of relatives in home countries, smooth consumption, and allow for investments, including in small businesses and education.

- However, the recent trend in withdrawal of correspondent banking relationships—whereby large global banks provide payment and deposit-taking services on behalf of other banks—has reduced the capacity for some countries in the region, such as Angola, Guinea, and Liberia, to conduct such and other cross-border transactions (Erbenová and others forthcoming), threatening the stability of these important sources of financing.

These unfavorable developments on the external front have, in some places, also led to an increased reliance on temporary domestic financing solutions that will be difficult to carry forward.⁵ In the Economic and Monetary Community of Central Africa (CEMAC), in less than one year, all member countries with the exception of Cameroon have exhausted their limit on direct advances from the regional central bank (Bank of Central African States)—even though those limits were raised in August 2015 and additional advances of 50 percent of the ceiling were approved for Chad and the Central African Republic. The stock of the Bank of Central African States financing now accounts for 7 percent of the CEMAC's GDP, and governments have been financing themselves domestically at increasingly short maturity, raising rollover risks. In the same vein, the South Sudanese government accumulated credit from the central bank of about 9 percent of GDP during the last fiscal year. In the West African Economic and Monetary Union (WAEMU), the positive spread between the key refinancing rate and rates on treasury bills and bonds has increased banks' incentives to borrow from the central bank to invest in public

⁵ Increased domestic financing of the budget also leads to crowding out of private sector financing.

debt. In addition, there is now a substantial stock of domestic arrears in countries such as Chad, Equatorial Guinea, Gabon, Nigeria, and Zambia. Finally, a small number of countries have made recourse to unorthodox borrowing schemes to finance infrastructure projects and state-owned enterprises (Benin, Guinea, Togo).

DELAYED POLICY ADJUSTMENT

Against this difficult backdrop, tighter financial conditions on the back of growing financing needs are forcing a belated policy adjustment.⁶ In addition, they are bringing to the fore lingering large fiscal deficits in some of the fast-growing countries.

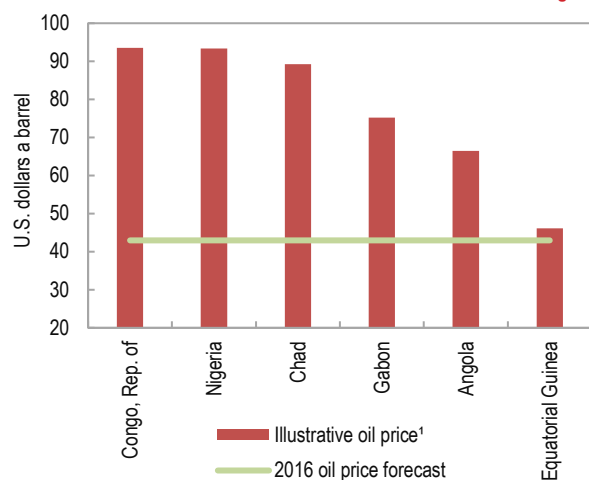
More Fiscal Adjustment Needed among Both Hard-hit and Fast-Growing Countries

Oil exporters have had to react on the fiscal front, given their extremely high dependence on the oil sector for fiscal revenue—although the reaction has been gradual, and only partial.

- With the exception of Equatorial Guinea (where it had already worsened before), all sub-Saharan African oil exporters will have seen their fiscal balance deteriorate substantially during 2013–16, by 2⅔ percentage points of GDP in Nigeria, and by as much as 4½ to 5¾ percentage points of GDP in Angola, the Republic of Congo, and Gabon. In fact, at this stage, it would still require substantially higher oil prices than currently forecast for 2016 and over the medium term to bring these countries back to their preshock fiscal balances (Figure 1.18). While the preshock fiscal position should not necessarily be the objective for the medium term, this is, nonetheless, evidence that the adjustment on the fiscal front remains unfinished for these countries.

⁶ A large body of literature, following Alesina and Drazen 1991, Alesina and others 2006, and Fernandez and Rodrik 1991, studies why policy reaction is usually delayed in the aftermath of a negative shock. This is because the costs of adjustment need to be distributed between different economic groups, with each of them typically attempting to bear the minimum cost and delaying the process—until adjustment becomes inevitable.

Figure 1.18. Sub-Saharan African Oil Exporters: Illustrative Oil Price That Would Return the 2016 Fiscal Position to the 2011–13 Average



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

¹ The illustrative oil price is the level of oil price that would allow the 2016 fiscal balance to return to the 2011–13 average under unchanged levels of spending and non-commodity-related revenues.

- These developments, by themselves, have not been at odds with experiences elsewhere in the world.⁷ That said, the nature of the adjustment has differed for sub-Saharan African oil exporters (Figure 1.19). With the exception of the Republic of Congo and unlike many oil exporters in the rest of the world, they have not been able to increase non-oil revenue sources to make up for the fiscal shortfall, relying instead on extensive expenditure cuts—especially to capital spending—with the negative consequences on overall growth described earlier. In Angola alone, the decline in oil revenue of about 20 percentage points of GDP was partially offset by a cut in current and capital spending totaling as much as 15 percentage points, underpinning a substantial adjustment in the non-oil fiscal position.

⁷ In fact, many countries from the Gulf Cooperation Council that experienced a decline of a similar magnitude in commodity revenues allowed their fiscal position to deteriorate much more and, for most, even increased public spending to smooth the shock on the economy—although there have been efforts toward fiscal consolidation in most countries more recently. These countries have been able to draw on substantial fiscal buffers in sovereign wealth funds, something that, in most cases, was not available to sub-Saharan African oil exporters (see October 2016 *Regional Economic Outlook: Middle East and Central Asia*).

Other resource-intensive countries, where commodity revenues are a much smaller share of total revenue than in oil exporters, have generally better managed the fiscal fallout from the decline in commodity prices, in particular by tapping into the substantial potential for domestic revenue mobilization.⁸ As a consequence, the fiscal adjustment to the shock—arguably less dramatic than for oil exporters—is generally more advanced. And the ability of these countries to tap additional fiscal revenue has also provided space for much-needed infrastructure investment, such as in the Central African Republic, Liberia, Mali, Niger, Sierra Leone, and Tanzania, thereby mitigating the fallout on growth (Figure 1.20).

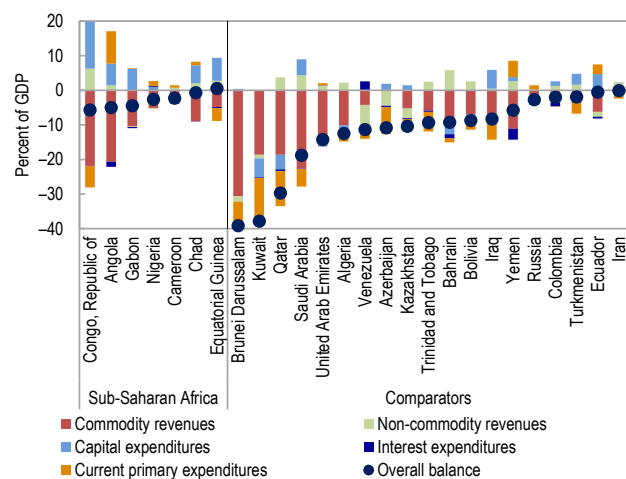
Meanwhile, non-resource-intensive countries have also seen their fiscal position worsen during the last few years, even as they continue to experience robust growth. As a result, the risk is that their fiscal stance could now be becoming procyclical, and that they would not be building sufficient buffers in good times (Figure 1.21). Among this group of countries, the median fiscal deficit will have widened from 2½ percent of GDP in 2013 to 4½ percent of GDP in 2016, even as the median growth performance remained a solid 4½ percent.

As a result, public debt has continued on its upward trend across the region (Figure 1.22). It increased sharply among oil exporters, by 20 percentage points of GDP for the median country since 2013—although from a low level in some such as Nigeria. But the increase in debt has been broadly mirrored in magnitude among other groups, including non-resource-intensive countries, where the median debt-to-GDP ratio has increased by as much as 13 percentage points since 2013. And while some countries in that latter group still have low debt levels, 16 out of 22 had a debt-to-GDP ratio above 40 percent at end-2015.

One reason has been the particular recourse to debt financing among frontier market economies in the region—arguably to a large extent to fund

⁸ For more details on the potential to improve domestic revenue mobilization in the region, see Chapter 1, October 2015 *Regional Economic Outlook: Sub-Saharan Africa*.

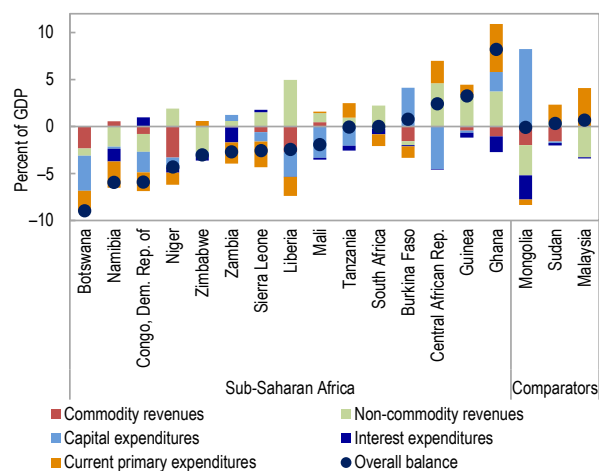
Figure 1.19. Sub-Saharan African Oil Exporters and Comparators: Change in Overall Fiscal Balance, 2016 versus 2013



Source: IMF, World Economic Outlook database.

Note: An increase (decrease) in revenue contributes positively (negatively) to the fiscal position. An increase (decrease) in expenditure contributes negatively (positively) to the change in fiscal position.

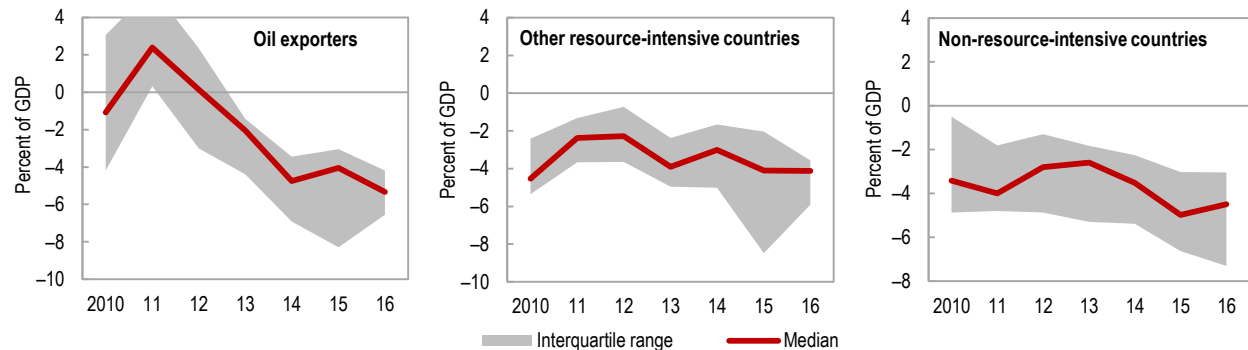
Figure 1.20. Sub-Saharan African Other Resource-Intensive Countries and Comparators: Change in Overall Fiscal Balance, 2016 versus 2013



Source: IMF, World Economic Outlook database.

Note: An increase (decrease) in revenue contributes positively (negatively) to the fiscal position. An increase (decrease) in expenditure contributes negatively (positively) to the change in fiscal position. For Malaysia, South Africa, Tanzania, and Zimbabwe, non-commodity revenues is equal to total revenue due to data availability.

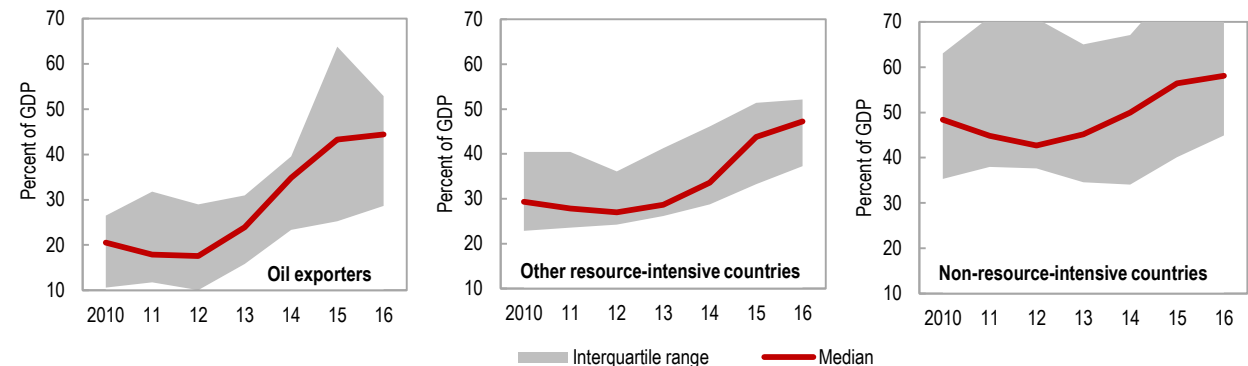
Figure 1.21. Sub-Saharan Africa: Fiscal Balance, 2010–16



Source: IMF, World Economic Outlook database.

Note: See page 88 for country groupings table.

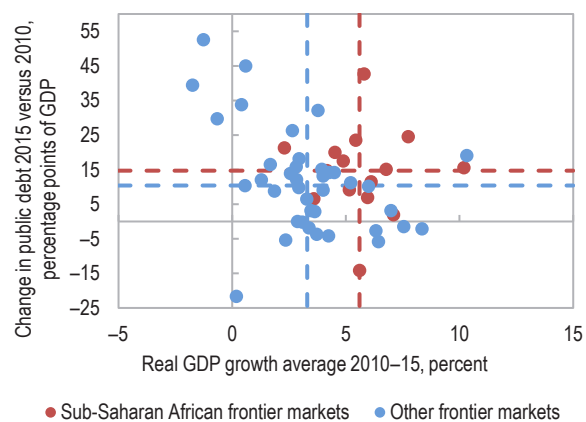
Figure 1.22. Sub-Saharan Africa: Public Sector Debt, 2010–16



Source: IMF, World Economic Outlook database.

Note: See page 88 for country groupings table.

Figure 1.23. Sub-Saharan African Frontier Market Economies and Comparators: Real GDP Growth and Public Debt



Source: IMF, World Economic Outlook database.

Note: Red dashed lines correspond to the medians for sub-Saharan African frontier markets for each variable; blue dashed lines denote the medians for other frontier markets for each variable.

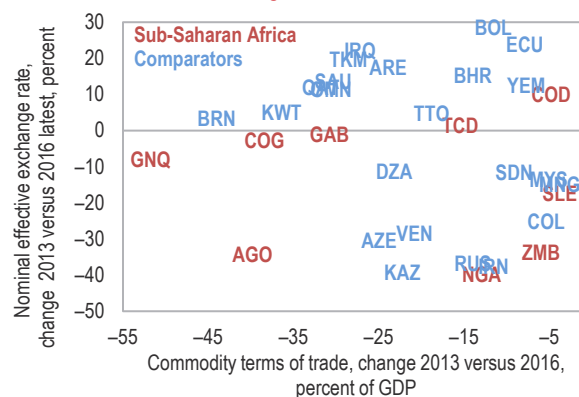
needed infrastructure investment. But the upshot has been a faster increase in public debt than in similar economies elsewhere in the world, even as sub-Saharan African frontier market economies experienced more robust growth rates (Figure 1.23).

Some negative effects of fiscal adjustment on growth are unavoidable in the short term. However, where this adjustment is needed, policymakers should strive to resort to policies that help minimize those negative effects by making consolidation as growth friendly as possible, while preserving social programs targeted at the poor and most vulnerable segments of the population. Actions should combine better mobilizing domestic revenue both through the expansion of the revenue base and the improvement of tax administration; rationalizing spending; and improving its efficiency, in particular by strengthening public investment management (IMF 2015).

Exchange Rate Adjustment, at Times with Reluctance

In tandem with fiscal adjustment, resource-intensive countries in the region have, at times reluctantly, allowed their currency to depreciate in response to the commodity terms-of-trade shock.

Figure 1.24. Selected Sub-Saharan African Resource-Intensive Countries and Comparators: Change in Commodity Terms of Trade and Nominal Effective Exchange Rate, 2016 versus 2013



Sources: IMF, Information Notice System; IMF, World Economic Outlook database; and United Nations, COMTRADE.

Note: Countries represented here have all experienced a deterioration of their commodity terms of trade during 2013–16 of 4 percent of GDP or more. See page 90 for country abbreviations.

- Overall, the size of the depreciation (in effective terms) has tended to mirror the extent of the shock (Figure 1.24). In fact, compared with other commodity exporters, especially those in the Middle East, the exchange rate adjustment has been deeper for sub-Saharan African countries whose currency is not pegged.⁹ For example, the depreciation in effective terms since end-2013 has now reached 30 to 40 percent in Angola, Nigeria, and Zambia.
- However, for some countries (Angola, Nigeria), these adjustments have happened with hesitation, delaying the price discovery from demand and supply and forcing central banks to use declining reserves to support the currency and to introduce administrative measures to contain dollar purchases. This and the lack of confidence in the authorities' commitment to the new, more flexible regime, in turn, have led to a detrimental backlog of unmet foreign exchange demand and to additional headwinds to the real economy. Nigeria's decision to

⁹ It is also important to note that in 2014, few countries in the region had rebuilt the buffers they drew from during the global financial crisis, leaving them with less room to smooth the shock than elsewhere. For example, Chad and Nigeria had international reserves equivalent to 8–9 percent of GDP by end-2013, a third of the level in the Islamic Republic of Iran and a fifth of that in Bolivia—where the terms-of-trade shock was of similar magnitude.

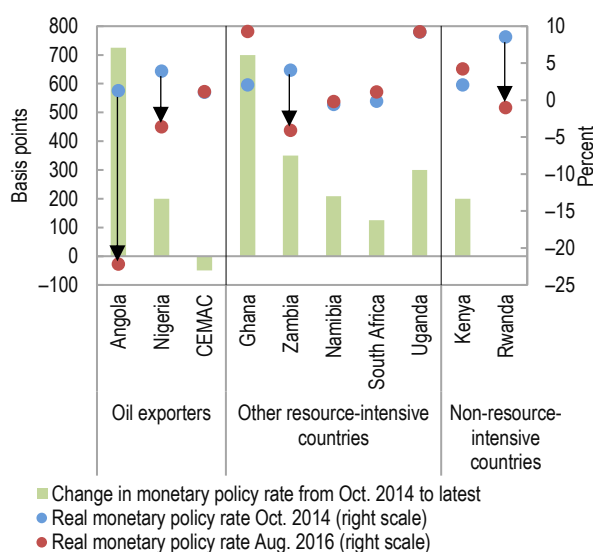
implement a flexible exchange rate in June is an important step in the right direction, but restrictions put in place in March 2015 remain on the 41 items deemed ineligible for the purchase of foreign exchange. In addition, in August 2016, a new directive was added, requiring all banks and authorized dealers to allocate 60 percent of foreign exchange sales to imports of raw material, plant, and machinery. In Angola, a priority list for access to foreign exchange at the official rate has also been introduced. Finally, the persistence of large wedges with parallel exchange rates in Angola and Nigeria, of around 240 percent and 25 percent, respectively, at the end of August 2016, suggests that the foreign exchange market in these countries remains in disequilibrium. Indeed, investors have remained wary of reentering these markets over concerns about liquidity, capital mobility, and potential policy reversal. In the CEMAC, the depreciation in effective terms has been minimal, given the peg to the euro—highlighting even more the need for adjustment on the fiscal and structural fronts.

- Elsewhere in the region, the relative stability of the currencies of a majority of other resource-intensive countries since the beginning of the year seems to indicate that most of the adjustment following the commodity price shock may have been achieved—although not everywhere, as currencies in the Democratic Republic of Congo, Guinea, Liberia, and Sierra Leone have remained under pressure.

Monetary Policy behind the Curve in Oil-Exporting Countries

The substantial depreciation of the currency experienced in some of the commodity-exporting countries has translated into high inflation. To some extent, this is inevitable, but the risk is that, with protracted high inflation, second-round effects start to materialize and inflation expectations would become disanchored. In that context, rising inflation has generally prompted an increase in policy rates—ranging from 125 bps in South Africa since October 2014 to as much as 700 bps

Figure 1.25. Sub-Saharan Africa: Monetary Policy Rate Change and Real Monetary Policy Rate since October 2014



Sources: Haver Analytics; and IMF, International Financial Statistics.

Note: Real monetary policy rate is the nominal rate adjusted for the year-over-year inflation rate. Due to data availability for the CEMAC, the policy rate is adjusted with the June 2016 year-over-year inflation rate. CEMAC = Economic and Monetary Community of Central Africa.

in Ghana and 725 bps in Angola as of end-August 2016 (Figure 1.25). That said, the adjustment remains substantially behind the curve in Angola and Nigeria. In these two countries, real policy interest rates are now in negative territory and some 7 to 20 percentage points below where they were at the onset of the shock. In the case of Zambia, real policy rates are also negative but this is mitigated by the fact that the overnight interbank rate remains some 250 basis points above the policy rate at the end of August 2016, and that reserve requirements were increased from 14 percent to 18 percent in April 2015—indeed, monthly inflation has already decelerated sharply since early 2016. Finally, accommodative monetary policy in the CEMAC—via central bank financing but also lower refinancing rates, higher government paper refinancing ceilings for commercial banks, and a cut in half of reserve requirement ratios—has likewise reached its limits and contributed to the loss of scarce reserves.

PROTRACTED LOWER GROWTH, RISING RISKS

A Modest Rebound Expected in 2017...

Against the backdrop of this gradual policy adjustment and of a shallow pickup in global activity, the region is foreseen to rebound somewhat next year, although the recovery will remain modest by recent standards. Activity in sub-Saharan Africa is expected to rebound to 2.9 percent in 2017, after 1.4 percent in 2016 (Table 1.1). At this pace, the region will barely return to positive per capita income growth next year, in sharp contrast to the past 15 years, which saw substantial improvements in living standards throughout the region.

However, these aggregate numbers will continue to mask considerably different dynamics across the region, and the picture will remain one of multispeed growth (Figure 1.26). While the largest countries, under severe strains this year, are expected to return to only very modest positive growth rates, and other resource-intensive countries to register marginal improvements in their outlook, others will continue to be propelled forward by ambitious public infrastructure plans and dynamic private sectors.

- Growth among oil exporters is expected to return to positive territory—after a contraction of $-1\frac{1}{4}$ percent this year—to barely reach 1 percent in 2017, on the back of a modest improvement in the oil price. Even then, this would still be a substantially lower pace than the close to 6 percent average of 2010–14—as these countries will continue to face deep economic challenges. The rebound in Nigeria, from a sharp contraction this year, to $\frac{1}{2}$ percent next year, is predicated on the authorities' ability to execute capital expenditure (in particular by making progress on near-completion infrastructure projects), the effectiveness of the recently introduced exchange rate reforms, an increase in offshore oil production capacity, and an improvement of the security situation in the Niger Delta. Likewise, after coming to a standstill this year, Angola is forecast to grow at $1\frac{1}{2}$ percent in 2017, owing to slightly better oil prices and ramped-up public spending ahead of the presidential elections.
- In other resource-intensive countries, growth is projected to remain in low gear, at 3 percent—a modest upgrade from 2 percent this year. After a contraction in the first quarter of 2016, and growth projected flat for the year, South Africa is foreseen to grow at $\frac{3}{4}$ percent

Table 1.1. Sub-Saharan Africa: Real GDP Growth
(Percent change)

	2004–08	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sub-Saharan Africa	6.6	3.9	7.0	5.0	4.3	5.2	5.1	3.4	1.4	2.9
<i>Of which:</i>										
Oil-exporting countries	8.7	6.7	9.2	4.7	3.9	5.7	5.9	2.6	-1.3	0.9
<i>Of which:</i> Nigeria	7.7	8.4	11.3	4.9	4.3	5.4	6.3	2.7	-1.7	0.6
Middle-income countries	6.7	3.6	6.9	4.6	4.3	4.7	4.6	2.7	0.4	2.0
<i>Of which:</i> South Africa	4.8	-1.5	3.0	3.3	2.2	2.3	1.6	1.3	0.1	0.8
Low-income countries	6.2	5.1	7.0	6.6	4.5	7.1	6.6	5.6	4.7	5.4
<i>Memorandum item:</i>										
World economic growth	4.9	-0.1	5.4	4.2	3.5	3.3	3.4	3.2	3.1	3.4
Sub-Saharan Africa other resource-intensive countries ¹	4.9	0.6	4.8	5.2	4.1	4.2	3.4	2.5	2.1	3.0
Sub-Saharan Africa non-resource-intensive countries ²	6.0	4.8	6.4	5.4	5.8	6.3	6.5	6.5	5.6	6.2
Sub-Saharan Africa frontier and emerging market economies ³	6.8	4.2	7.3	5.1	4.5	5.1	5.1	3.6	1.3	2.8

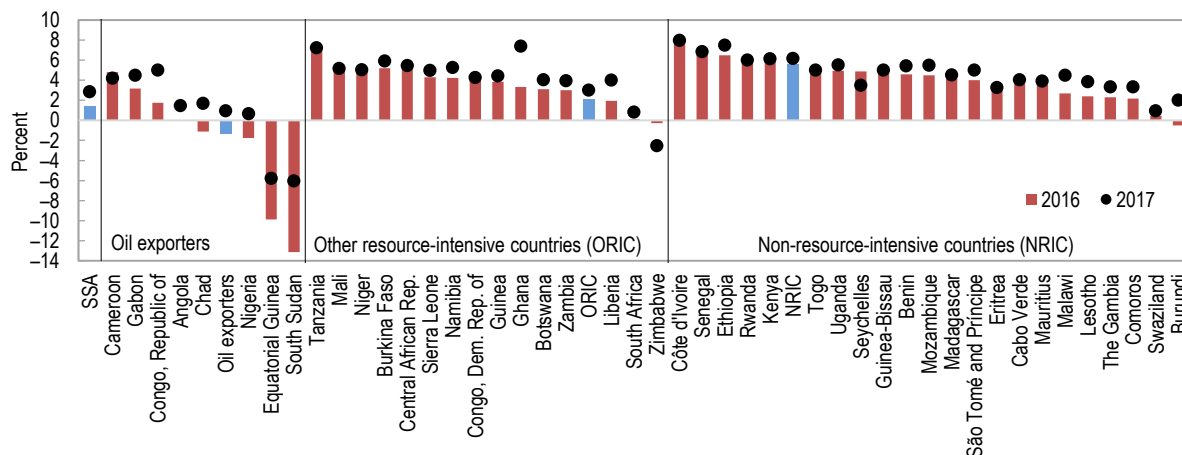
Source: IMF, World Economic Outlook database.

¹ Includes Botswana, Burkina Faso, Central African Republic, Democratic Republic of Congo, Ghana, Guinea, Liberia, Mali, Namibia, Niger, Sierra Leone, South Africa, Tanzania, Zambia, and Zimbabwe.

² Includes Benin, Burundi, Cabo Verde, Comoros, Côte d'Ivoire, Eritrea, Ethiopia, The Gambia, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Swaziland, Togo, and Uganda.

³ Includes Angola, Cameroon, Côte d'Ivoire, Ethiopia, Gabon, Ghana, Kenya, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, and Zambia.

Figure 1.26. Sub-Saharan Africa: Real GDP Growth



Source: IMF, World Economic Outlook database.

Note: SSA = sub-Saharan Africa. See page 88 for country groupings table.

in 2017, as the commodity and drought shocks are expected to dissipate and power supply improves. But policy uncertainty and deep structural constraints will continue to put a lid on growth. Zambia is expected to accelerate to 4 percent, from 3 percent this year, as the negative effect of the drought on electricity generation eases, new capacity comes onstream, and some mining projects are expanded. Ghana is projected to enjoy a growth fillip as a new field coming on line is expected to boost oil production by some 50 percent, increasing overall growth to 7½ percent. However, the rest of the economy will continue to expand at a much slower pace. While Guinea, Liberia, and Sierra Leone are recovering from the Ebola epidemic, their outlook will remain clouded by weak iron prices, with growth forecast between 4 and 5 percent, and generally below the rates experienced prior to the pandemic. In Zimbabwe, the political environment will limit the scope for policy adjustments and, in the absence of external financing, the economic contraction is expected to deepen in 2017.

- Non-resource-intensive countries, conversely, are expected to remain on their decade-long growth trend of above 6 percent in 2017. Large infrastructure projects are projected to continue to provide strong support to growth in Côte d'Ivoire, Ethiopia, Kenya, Rwanda, and Senegal—all slated to register growth between

6 and 8 percent next year. Other countries, such as Benin and Togo, are forecast to enjoy growth in excess of 5 percent, as they continue to benefit from low oil prices.

As affected countries continue their gradual adjustment, the region is expected to witness an equally gradual improvement in its fiscal and external positions from historically high deficits (Table 1.2). The overall fiscal balance (including grants) is projected to widen to -4½ percent this year, on the back of a deterioration among oil exporters, before narrowing to -4 percent in 2017. In particular, the fiscal deficit is expected to remain elevated in Zambia at 8¼ percent of GDP in 2017 on the back of large subsidies; in Angola at 5½ percent of GDP in an election year; and in Nigeria as the country ramps up public investment to support its diversification agenda. Some southern African countries (Lesotho, Namibia, Swaziland) will also have to face a persistently deteriorated fiscal position in a context of depressed trade revenues from the Southern African Customs Union. Elsewhere, despite some consolidation, Kenya is still foreseen to register a sizable fiscal deficit, at 6½ percent of GDP in 2017, even as it remains one of the fastest-growing countries in the region. Likewise, the external current account deficit for the region is expected to narrow gradually to 4½ percent in 2016 and 4 percent in 2017, from 6 percent last year, mostly as oil-exporting countries adjust through substantial import compression.

- Global growth is still subject to substantial downside risks, with the most direct implication for sub-Saharan Africa being on the outlook for commodity prices. In particular, a more rapid rebalancing, or a marked slowdown, in China would result in further depressed demand for commodity exports from the region and lower commodity prices at the global level.
- Further volatility in global financial markets—similar to the bouts of volatility experienced in January of this year—could reignite risk aversion and complicate financing for frontier market economies in the region, leading some of them to run out of options. Monetary policy decisions in advanced economies related to normalization in the United States and additional stimulus in the euro area and Japan would have particular bearing on investors' sentiment.
- An additional risk pertains to developments in the European Union, which remains a major partner and supplier of capital and aid to the region, and where the decision of the United Kingdom to leave the European Union has added another layer of uncertainty. Negative surprises on growth in Europe would directly and adversely affect the region through trade and financial channels.

Box 1.1. Reaping the Benefits from Export Diversification

As many economies in the region still reel from the commodity price slump, diversification—in particular of the products one country exports—is emerging as an important channel to foster growth and increase resilience. Supporting infrastructure upgrade, price competitiveness and trade openness, but also equal opportunities appear to be powerful levers to enable export diversification.

The literature has long established that diversification and structural transformation—the continued, dynamic reallocation of resources to more productive sectors and activities—are associated with economic growth, particularly at the early stages of development (IMF 2014; Papageorgiou and Spatafora 2012). Export diversification, in particular, is associated with much smaller output volatility (Figure 1.1.1). The reverse is also true, as many sub-Saharan African resource-intensive countries are currently experiencing, with a sharp shift in their growth pattern following the slump in commodity prices and limited options to boost exports of other goods and services in the short term.

In that context, policies to support export diversification have gained renewed interest, and this box explores the specific policies that have been connected, in sub-Saharan Africa and elsewhere, with higher degrees of export diversification. To do so, it looks at the association between export diversification, and a range of structural and policy factors, following Kazandjian and others (2016), for a global sample over 1990–2010 using annual data:

$$\begin{aligned} \text{Export Diversification}_{it} &= \beta \text{Structural}_{it} + \gamma \text{Policies}_{it} + \varphi \text{Cyclical}_{it} \\ &+ (\beta' \text{Structural}_{it} + \gamma' \text{Policies}_{it} + \varphi' \text{Cyclical}_{it}) \cdot \text{LIDC} \\ &+ \mu_i + \theta_t + \varepsilon_{it} \end{aligned}$$

- in which export diversification for country i at time t is measured by the Theil index on goods exports, in which j is the product index and N the total number of products. Lower values of the Theil index indicate higher levels of export product diversification.¹

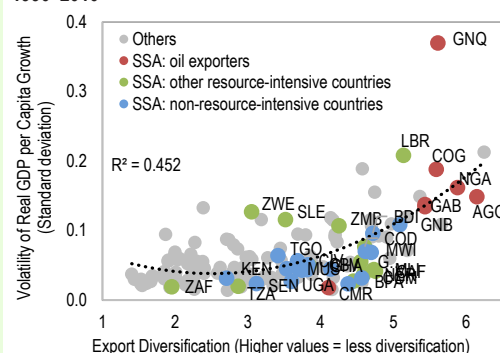
$$\text{Theil Index} = \frac{1}{N} \sum_j \frac{\text{Export Value}_j}{\text{Average Exp.Value}} \cdot \ln \frac{\text{Export Value}_j}{\text{Average Exp.Value}};$$

- structural factors capture the population size, level of economic development, and extent of resource dependence
- cyclical factors, such as terms of trade, capture the macroeconomic environment
- policies capture the level of human capital; quality of institutions, infrastructure, and business environment; degree of trade openness; gender inequality (to capture the inefficiencies in the labor market and insufficient allocation of human capital generated by the lack of access to opportunities for women); the level of the real effective exchange rate (to measure potential over/undervaluation); and other factors as robustness checks
- and μ_i and θ_t represent country and time fixed effects.

This box was prepared by Romina Kazandjian, Lisa Kolovich, and Monique Newiak.

¹ As a robustness check, the same analysis is performed with a similar index of diversification for real output, constructed using real subsectors from the United Nation's sectoral database (IMF 2014). The results of that analysis are broadly similar, but the rankings in terms of the degree of their diversification change significantly for some countries.

Figure 1.1.1. Export Diversification and Output Volatility, 1990–2010



Sources: IMF 2014; and IMF, World Economic Outlook database.

Note: See page 88 for country abbreviations.

Box 1.1. (continued)

For all variables, except for real GDP per capita, we interact them also with a low-income and developing country dummy to allow for the possibility that the effects are different at earlier stages of development.

While structural characteristics play a strong role, the results show that there is also significant room for policy interventions to foster export diversification. Because higher Theil indices reflect lower levels of export diversification, a negative sign in the regression suggests that the factor in question is associated with better diversification outcomes (Table 1.1.1).

- *Structural and cyclical factors*—The results confirm the U-shaped relationship between export diversification and development (Dabla-Norris and others 2013), in which countries diversify until they reach a certain level of development but reconcentrate afterward. A higher share of mining in output is associated with a less diversified export base, as are positive terms-of-trade shocks, as those tend to induce Dutch disease—a process through which high commodity prices, for example, hollow out noncommodity sectors because the induced price increases make other segments of the economy unable to compete with the rest of the world. Capturing economies of scale and the presence of a larger pool of talent, population size is generally associated with higher diversification.
- *Policies*—Human capital and stronger institutions are associated with a more diversified export base in all countries, but with a weaker (stronger) effect for low-income and developing countries for the former (latter), highlighting the need for continued policies to improve these relatively slow-moving factors in the medium to long term. Likewise, stronger infrastructure, proxied by the length of the road network, are associated with higher degrees of export diversification in all countries. A higher degree of openness in international trade also expands the possible pool of trading partners and demand for exports, and the results confirm a positive and significant relationship with export diversification in particular for low-income countries.² Higher gender inequality, as measured by the extended version of the United Nations Gender Inequality Index, is strongly associated with lower export diversification, highlighting the role that equal access to opportunities for women can play for the economy at large, through at least two channels. First, eliminating gender gaps in education can increase overall human capital accumulation. Second, lower systematic differences in labor force participation increase the overall pool of talent in the labor market. Finally, a more appreciated real effective exchange rate is associated with lower diversification—highlighting the importance of preserving competitiveness to support diversification.

Policies to boost the creation of new more diversified sources of exports as highlighted above should also be complemented by efforts to upgrade the quality of currently exported products, in particular in the agricultural sector, especially for small countries and those with a comparative advantage in exporting commodities (IMF 2014).

² However, it should be kept in mind that causality could run in both directions, since higher degrees of diversification could also increase a country's openness to trade or its propensity to have better infrastructure.

Box 1.1. (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
Structural Factors						
Log(Population)	-0.558 *** (0.0905)	-0.557 *** (0.0902)	-0.583 *** (0.0918)	-0.354 *** (0.0884)	-0.712 *** (0.0927)	0.591 *** (0.163)
- in LIDC	0.379 *** (0.123)	0.0186 (0.131)	-0.0285 (0.131)	-0.885 *** (0.142)	0.721 *** (0.131)	-2.280 *** (0.302)
Log(Real GDP per capita)	-1.947 *** (0.176)	-2.773 *** (0.186)	-2.59 *** (0.197)	-2.416 *** (0.205)	-1.908 *** (0.210)	-1.765 *** (0.326)
- squared	0.124 *** (0.0111)	0.167 *** (0.0113)	0.156 *** (0.0119)	0.146 *** (0.0123)	0.117 *** (0.0128)	0.0932 *** (0.0189)
Mining as share of GDP	0.00362 (0.00294)	0.0104 *** (0.00314)	0.0118 *** (0.00332)	0.00478 * (0.00272)	0.0096 *** (0.00309)	0.0247 *** (0.00503)
- in LIDC	0.0295 *** (0.00404)	0.00893 ** (0.00433)	0.00923 ** (0.00444)	0.0364 *** (0.00503)	0.0189 *** (0.00432)	-0.0597 *** (0.0119)
Human Capital						
Lag human capital index	-0.353 *** (0.0832)	-0.173 ** (0.0763)	-0.226 *** (0.0785)	-0.229 *** (0.0762)	-0.234 *** (0.0817)	-0.17 * (0.0996)
- in LIDC	-0.277 * (0.153)	0.484 *** (0.164)	0.412 *** (0.155)	0.663 *** (0.161)	-0.542 *** (0.164)	2.863 *** (0.329)
Institutions						
Fraser Institute Sum. Index		-0.0235 * (0.0124)				-0.0035 (0.0191)
- in LIDC		-0.202 *** (0.0213)				-0.128 *** (0.0431)
Openness						
Freedom to trade			-0.0324 *** (0.00663)			-0.0357 *** (0.0117)
- in LIDC			-0.0593 *** (0.0117)			-0.0512 ** (0.0249)
Infrastructure						
Length of road network				-0.0626 *** (0.0169)		-0.0643 *** (0.0159)
- in LIDC				0.058 *** (0.0217)		-0.0335 (0.0264)
Macro/Cyclical factors						
Terms of trade					0.0027 *** (0.0004)	0.0043 *** (0.0005)
- in LIDC					0.000222 (0.0005)	0.0038 *** (0.001)
Log(REER)						0.183 *** (0.0518)
- in LIDC						0.213 * (0.119)
Gender Inequality						
GII index						1.18 *** (0.272)
- in LIDC						-0.760 (0.543)
Constant	12.36 *** (0.676)	16.08 *** (0.739)	15.31 *** (0.776)	14.14 *** (0.852)	12.21 *** (0.830)	7.824 *** (1.453)
Number of observations	3,538	3,059	3,124	2,999	3,263	1,583
Countries	107	101	101	90	101	84
R-squared	0.163	0.280	0.254	0.273	0.222	0.353
Adjusted R-squared	0.126	0.244	0.217	0.239	0.186	0.298

Source: IMF staff calculations.

Note: All specifications include country and time fixed effects. Standard errors in parentheses. The effect of a variable on export diversification in LIDC is the sum of the coefficient in the global sample and the coefficient on the LIDC interaction term. GII = Gender Inequality Index; LIDC = low-income developing country; REER = real effective exchange rate. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Box 1.2. Sub-Saharan African Spreads: Changing Sentiments?

Examining the determinants of sovereign spreads for 62 emerging and frontier market economies, this box finds evidence that investor sentiment has changed since October 2014, when oil prices started declining sharply. In particular, the oil price decline raised spreads disproportionately for the oil exporters around the world after this period, and investors appear to pay more attention to country fundamentals in their portfolio decisions—a strong reminder to governments in both commodity exporters and non-resource-intensive countries in the region that deteriorating fundamentals will continue to have a bearing on the ease with which they can raise external financing.

We revisit here the analysis on sovereign spreads in the region and other frontier market economies conducted in the April 2015 *Regional Economic Outlook: Sub-Saharan Africa* (Box 1.3) to test whether the determinants of these spreads have changed further since October 2014, when commodity prices started declining sharply and the outlook for the region weakened. We also augment the analysis to examine the effect of non-oil commodity price movements, institutions, ratings, and IMF programs. The estimated relationship—which uses monthly data from January 2009 to June 2016 for 62 emerging and frontier economies¹—is as follows:

$$\begin{aligned} \text{spread}_t = & \alpha \text{ spread}_{t-1} + \beta \text{ global}_{t-1} + \gamma \text{ commodity}_t + \varphi \text{ fundamentals}_{t-1} + \rho \text{ ratings}_t \\ & + (\beta' \text{ global}_{t-1} + \gamma' \text{ commodity}_t + \varphi' \text{ fundamentals}_{t-1} + \rho' \text{ ratings}_t) \cdot \text{post2014Oct} \\ & + \theta_t + \mu_t + \varepsilon_t, \end{aligned}$$

in which spread_t is the log of the spread between the yield on sovereign emerging and frontier markets and the yield on the 10-year Treasury bond at time t , global_t includes the one-month lag of the Chicago Board Options Exchange Volatility Index (VIX),² the U.S. term premium, and the London interbank offered rate-overnight indexed swap (LIBOR-OIS) as a proxy for global volatility and funding costs. commodity_t captures the percentage change in the fuel price index (crude oil, natural gas, and coal) as well as that of gold and copper prices and their interactions with respective dummies for countries exporting these commodities. $\text{fundamentals}_{t-1}$ capture the country's GDP per capita growth rate and inflation rate, as well as the current account balance, gross public debt, the primary balance in percent of GDP, and institutional quality. Finally, to capture buy and sell decisions based on asset quality, we include Standard & Poor's sovereign ratings in the regressions.³ All variables are interacted with a dummy (post2014Oct) that allows to test whether the sensitivity of the spreads to various determinants has changed significantly since the beginning of the oil price slump. Finally, θ_t , μ_t , and ε_t capture time fixed effects, country fixed effects, and the error term, respectively.

The results suggest that investors have increased the weight they ascribe to domestic economic fundamentals since 2014 (Table 1.2.1):

- Results for the pre-October 2014 period confirm the findings of the April 2015 box: both global factors, including commodity price movements and country fundamentals, played a role in explaining emerging and frontier market spreads over the examined horizon. In particular, higher values of the VIX, the U.S. term premium and the LIBOR-OIS were all associated with increases in spreads, confirming that global sentiment mattered for spreads in the region. Higher oil prices resulted in lower spreads for oil exporters and oil importers alike, possibly capturing strong global demand conditions. Likewise, higher gold prices were associated with higher spreads on average, likely denoting the use of gold as a safe haven asset. Positive country fundamentals—higher GDP per capita growth, current account balances, reserves, and primary

This box was prepared by Samir Jahjah, Monique Newiak, and Jing Wang.

¹ Sub-Saharan African emerging and frontier market economies included in the analysis are Angola, Côte d'Ivoire, Ethiopia, Gabon, Ghana, Kenya, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, and Zambia.

² The lag of the VIX is instrumented with its second lag due to endogeneity concerns from including both its lagged value and fixed effects in the specification.

³ Since both indices of institutional quality and sovereign ratings include some information on macroeconomic fundamentals, these variables are first purged from this information in a separate regression to avoid colinearity. The results are robust to other country sovereign ratings, such as the ones produced by Fitch and Moody's.

Box 1.2. (continued)

balances as well as lower levels of public debt and inflation—and the presence of an IMF-supported program were all associated with lower levels in spreads.

- After the oil price shock, the impact of several factors has changed. In particular, the role of commodity prices is now aligned with the exporter status: lower oil and copper prices result in even higher spreads for countries that export these commodities—amplifying the effect of the sizable terms-of-trade shock—while the impact on oil importers is significantly lower, as investors recognize the windfall gains for their economies that the large oil price decline has brought. In addition, investors appear to have increased their emphasis on country fundamentals as the sensitivity of higher current account balances, international reserves, and inflation on the

Table 1.2.1. Determinants of Sovereign Spreads

Variables	Log of spread	Log of spread (Cont.)
		Determinant * Post Oct. 2014 Dummy ¹
Log of Spread (-1)	0.433 ** (0.169)	
VIX (-1)	0.008 ** (0.004)	-0.005 ** (0.002)
U.S. term premium (-1)	0.035 *** (0.012)	0.140 *** (0.028)
LIBOR-OIS (-1)	0.369 *** (0.088)	-1.905 *** (0.410)
Oil price shock	-0.416 *** (0.078)	0.086 (0.105)
Oil exporter * oil price shock	-0.069 (0.144)	-0.374 * (0.194)
Copper price shock	-0.263 *** (0.083)	0.319 * (0.178)
Copper exporter * copper price shock	-0.204 (0.188)	-0.807 * (0.467)
Gold price shock	0.568 *** (0.105)	-0.162 (0.189)
Gold exporter * gold price shock	0.144 (0.256)	0.515 (0.518)
GDP per capita growth (-1)	-0.016 *** (-0.004)	-0.002 (-0.004)
Current account balance (-1)	-0.004 *** (-0.001)	-0.005 *** (-0.002)
Reserve (-1)	-0.005 *** (-0.002)	-0.002 ** (-0.001)
Gross public debt (-1)	0.005 *** (0.002)	0.000 (0.000)
Primary balance (-1)	-0.006 ** (-0.003)	0.006 * (0.004)
Inflation (-1)	0.002 *** (0.001)	0.003 ** (0.001)
ICRG, relative to world level	-1.855 *** (0.546)	-0.180 (0.202)
Investment grade	-0.049 ** (0.025)	-0.001 (0.022)
IMF arrangement announcement effect	-0.032 (0.029)	0.099 (0.067)
IMF arrangement permanent effect	-0.044 *** (0.015)	0.013 (0.014)
Countries		62
Country fixed effects		YES
Year fixed effects		YES
Observations		4,190
R-squared		0.947
LM-statistics		16.19
F-stat		16.78

Source: IMF staff estimates.

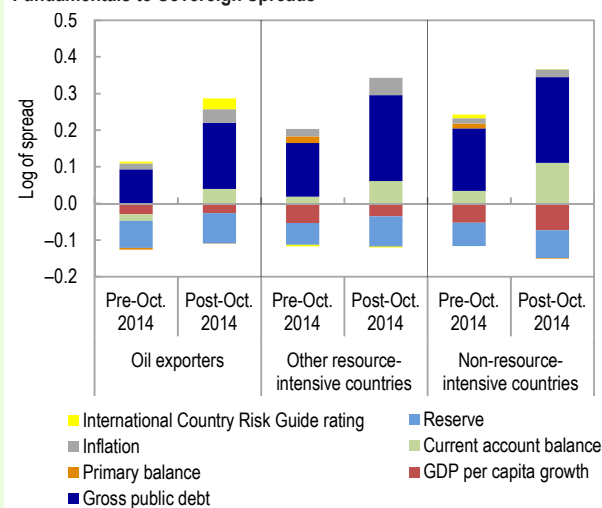
Note: Robust standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. ICRG = International Country Risk Guide rating; LIBOR-OIS = London interbank offered rate-overnight index; VIX = Chicago Board Options Exchange Volatility index.

¹ The impact for the period after October 2014 is the sum of the coefficients in the two columns.

spreads increased significantly in the post-October 2014 period—mirroring investors' rising concerns about the delayed adjustment of some countries in the region.

A decomposition exercise highlights that the deterioration of various fundamentals has driven up spreads across all groups of sub-Saharan African frontier market economies (Figure 1.2.1). Among oil exporters, the increase in spread due to weakening fundamentals has been the largest since October 2014, reflecting the combined effect of decreasing reserves, the switch from a substantial current account surplus to a deficit, and rapidly rising public debt. For other commodity exporters, increasing debt levels, lower growth prospects, and rising inflation also contributed to the higher spreads these countries have been experiencing. But non-resource-intensive countries have been affected by investors' reassessments of fundamentals too, driven both by the large widening of their current account deficit and rising public debt.

Figure 1.2.1. Sub-Saharan Africa: Contributions of Country Fundamentals to Sovereign Spreads



Source: IMF staff calculations.

Note: See page 88 for country groupings table.

Box 1.3. Migration and Remittance Flows in Sub-Saharan Africa¹

Migration happens predominantly within the region

Amid rapid population growth, migration in sub-Saharan Africa has increased considerably in recent decades. In 1990, 10 million sub-Saharan Africans lived outside their own country; by 2013, that number had grown to 20 million. Migration for economic reasons has risen strongly, while the proportion of refugees has fallen from half of total migration to only one-tenth during that period—owing to the sharp reduction in the number of armed conflicts in the region.

Despite misperceptions in advanced economies, migration remains predominantly within sub-Saharan Africa. Out of the 20 million sub-Saharan Africans living outside their country of origin as of 2013, 13 million resided within the region. Intraregional migration flows have been enduring, driven by the search of better economic opportunities, and helped by cultural affinities. In particular, Côte d'Ivoire and South Africa act as strong magnets for migrants from neighboring countries. For example, in 2013, Burkinabe citizens residing in Côte d'Ivoire were as numerous as 9 percent of the population in Burkina Faso, the equivalent number for Malians in Côte d'Ivoire was 3 percent, and together, these two communities accounted for 8 percent of the population in Côte d'Ivoire. Similarly, migrants from Lesotho residing in South Africa are as numerous as 16 percent of the population in their home country, 8 percent for Swaziland and 5–6 percent for Zimbabwe and Namibia (Figure 1.3.1). Meanwhile, migration outside the region is mainly directed toward advanced economies: 85 percent of migrants outside the region are located in Organisation for Economic Co-operation and Development (OECD) countries, with France, the United Kingdom, and the United States hosting half of them (Figure 1.3.2).

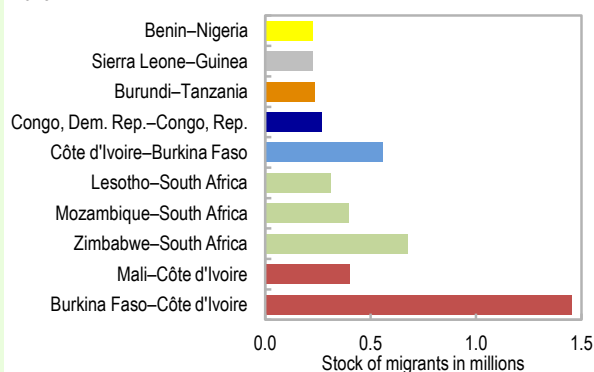
Remittances as powerful shock absorbers

Understanding the economic impact of migration is complex. On the one hand, in the process of migration, the labor force is reduced in the country of origin, which tends to lower potential output. Also, average productivity usually decreases as those who migrate are typically better educated and of prime working age—which is particularly the case for those migrating outside the region. Fiscal revenues are also reduced as a result of output lost. However, on the other hand, migrants send remittances back home, which supplement the income of relatives in countries of origin, contribute to poverty alleviation, and can even finance small investment projects and the education of other family members. Finally, there is evidence for a few sub-Saharan African countries that the possibility of migration tends to encourage the acquisition of human capital in the origin country.

This box was prepared by Jesus Gonzalez-Garcia and Montfort Mlachila.

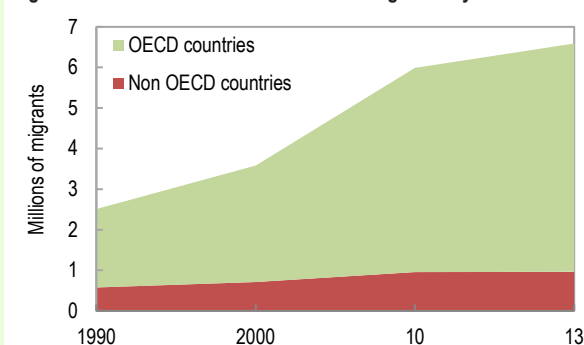
¹ This box draws on Gonzalez-Garcia, Hitaj, Mlachila, Viseth, and Yenice 2016.

Figure 1.3.1. Sub-Saharan Africa: Top Inward Migration Corridors, 2013



Source: World Bank, Migration and Remittances database.

Figure 1.3.2. Sub-Saharan Africa: Outward Migration by Destination



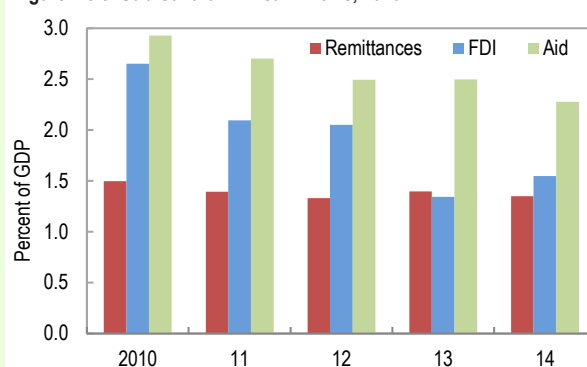
Source: World Bank, Migration and Remittances database.

Note: OECD = Organisation for Economic Co-operation and Development.

Box 1.3. (continued)

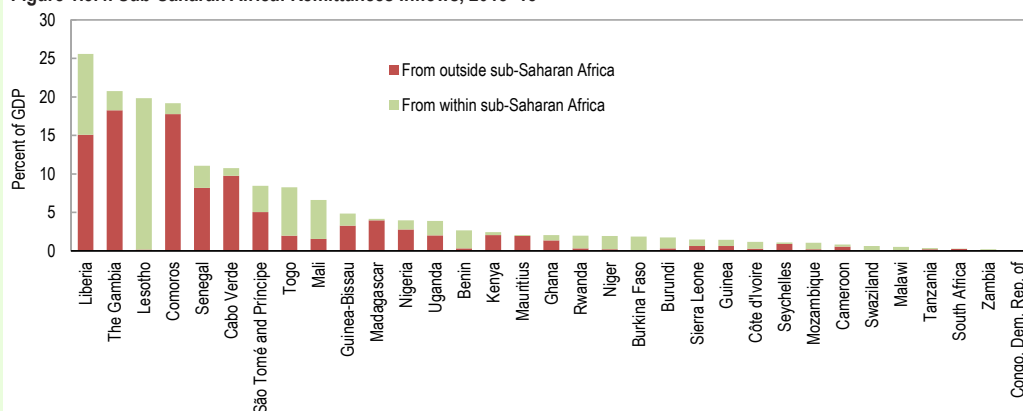
Indeed, remittance inflows have been a relatively stable source of external earnings for sub-Saharan Africa. While both foreign direct investment and aid flows have been on a declining trend since the global financial crisis, remittance inflows from the rest of the world have been resilient, at around 1½ percent of GDP since 2010 (Figure 1.3.3). These inflows are especially important for Cabo Verde, Comoros, The Gambia, and Liberia, where remittance inflows from the rest of the world are at or above 10 percent of GDP.

Remittance inflows from within the region are also very important for some countries and can transmit shocks from originating countries (Figure 1.3.4). For instance, Lesotho, which receives about 18 percent of its GDP in remittances from South Africa, could see a weakening of those flows due to subdued GDP growth in that country. Likewise, the ongoing economic contraction in Nigeria may take a toll on remittance flows received in Benin, The Gambia, Liberia, and Togo.

Figure 1.3.3. Sub-Saharan Africa: Inflows, 2010–14

Sources: World Bank data; and IMF staff calculations.

Note: FDI = foreign direct investment.

Figure 1.3.4. Sub-Saharan Africa: Remittances Inflows, 2013–15

Sources: World Bank data; and IMF staff calculations.

Migration to advanced economies set to rise strongly in the context of Africa's demographic transition

To cast light on the outlook for migration in sub-Saharan Africa during the next decades, it is first necessary to identify its drivers. To that effect, we characterize in an econometric model the determinants of migration from developing to OECD countries—relating migration flows to economic development levels and other structural factors.² We then test whether those factors also apply to the region, and use the analysis to derive prospects for future migratory flows.

² More specifically, the estimates are obtained from a gravity model for migration flows estimated for 117 developing economies during 1977–2013, using a Poisson regression. The determinants of migration to OECD countries are relative per capita income and working-age population, as well as the existing diaspora in OECD countries, distance between countries, public health spending in OECD countries, and indicators for common language, previous colonial relationship, wars in sub-Saharan African countries, and landlocked countries (origin and destination). This specification is similar to those used in the literature (see, for instance, Beine, Docquier, and Ozden 2011, Flowerdew 2010, and Lewer and Van den Berg 2008).

Box 1.3. (continued)

The main drivers of migration from developing economies appear indeed to be income differentials and population pressure—as measured by the ratio of working-age population in the origin country relative to that in the destination country (Table 1.3.1). These factors seem to play a relatively similar role for sub-Saharan African migrants. On the other hand, the role of diasporas in the destination countries appear to be particularly important for sub-Saharan African migrants—as they seem to rely more on these supporting networks. Distance and the fact that many countries in the region are landlocked tend to inhibit migration flows from sub-Saharan Africa, most probably because of the very large area of the region, as well as costly and difficult transportation. Having a common language facilitates sub-Saharan African migration more than in other developing countries, but not previous colonial ties—indeed, the United States remains the main destination of outside migration for the region.

What does this analysis tell us about future migratory flows? The income differential with OECD countries will persist in the coming decades. Meanwhile, population pressure will become stronger as a result of the profound demographic transition in sub-Saharan Africa.³ This ongoing transition implies not only strong population growth but an even stronger growth for working-age population, from which migrants typically come: sub-Saharan Africa's working-age population is projected to close to triple in the next 35 years, from 480 million currently to 1.3 billion.

In that context, migratory flows are likely to increase, especially as populations within OECD countries age during the same period. While projecting migratory flows is fraught with difficulty, we can use our model to get a sense of their order of magnitude under broadly unchanged migratory policies. Using IMF *World Economic Outlook* growth projections for both OECD and sub-Saharan African countries (extrapolated over the next decades), and population projections from the United Nations World Population Prospects, our results suggest that the number of sub-Saharan African citizens living in OECD countries could reach as much as 34 million by 2050. With such an increase, by 2050, they would correspond to 1.7 percent of the population in sub-Saharan Africa, up from 0.6 percent in 2010. The share of sub-Saharan African migrants in OECD populations would also rise to 2.4 percent by 2050, from 0.4 percent currently.

Table 1.3.1. Determinants of Migration Flows from Developing to OECD Countries

Relative income	0.000021 ***
Relative income * SSA	0.000003
Relative WAP	0.048 ***
Relative WAP * SSA	-0.031 **
Diaspora	0.637 ***
Diaspora * SSA	0.102 ***
Distance	-0.150 ***
Distance* SSA	-0.283 ***
Public health exp. in dest.	-0.052 **
Public health exp. in dest.* SSA	0.183 ***
War	-0.025
War* SSA	-0.173
Common language	0.040
Common language * SSA	0.387 ***
Colonial relationship	0.256 **
Colonial relationship * SSA	-0.666 ***
Landlocked origin country	0.345 ***
Landlocked origin country * SSA	-0.643 ***
Landlocked destination country	-1.197 ***
Landlocked destination country * SSA	0.204
Number of observations	49,108

Source: IMF staff calculations.

Note: *** and ** denote significance at 5 and 1 percent levels, respectively. OECD = Organisation for Economic Co-operation and Development; SSA = sub-Saharan Africa; WAP = working-age population.

³ For a more detailed analysis of the unfolding demographic transition in the region, see Chapter 2 of the April 2015 *Regional Economic Outlook: Sub-Saharan Africa*.

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