Africa's Pulse

An analysis of issues shaping Africa's economic future

▸ Economic prospects for Sub-Saharan Africa remain strong, but growth is vulnerable to a sharp decline in commodity prices

▸ The region's progress on reducing poverty has been slow, hindered by high inequality

▸ Faster reduction in poverty will require growth with equity

AFRICA'S PULSE TEAM:
Punam Chuhan-Pole (Team Leader),
Luc Christiaensen, Allen Dennis,
Gerard Kambou, Manka Angwafo,
Mapi Buitano, Vijdan Korman,
Camila Galindo Pardo, Aly Sanoh

With contributions from
Francisco H.G. Ferreira,
Delfin Go, Maryla Maliszewska,
Israel Osorio-Rodarte

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Summary

▶ Global economic activity remains subdued, and despite signs of strengthening in high-income countries, significant downside risks persist.

▶ Economic activity remains strong in much of Sub-Saharan Africa, underpinned by robust domestic demand.

▶ The economic outlook for the region is positive, although the region is vulnerable to both a sharp decline in commodity prices and the fragility of the global economy.

▶ More than a decade of growth has helped to lower poverty, but the twin goals of ending extreme poverty and boosting shared prosperity call for a sharp ramping up of effort.

▶ A low growth elasticity of poverty means that growth alone will not suffice to rapidly reduce poverty in the region. Accelerating Africa's poverty reduction will also require more inclusive growth processes and tackling inequality.

Section I: Recent Trends and Prospects

A. RECENT DEVELOPMENTS IN THE GLOBAL ECONOMY

▶ Global growth remains weak, but advanced economies are making progress in rebuilding their economies; growth in developing countries remains mixed.

▶ GDP growth in Sub-Saharan Africa is projected to strengthen to 4.9 percent in 2013, rising to 5.3 percent in 2014 and 5.5 percent in 2015.

▶ Growth will be supported by a continuation of strong domestic demand and higher production in the mineral resources, agriculture, and service sectors.

Five years after the financial crisis, global economic growth has yet to catch up to precrisis levels, as high-income countries continue to see subpar and uneven economic performance. These countries saw a slowdown in GDP growth in 2012, as economic activity contracted in the Euro Area, pulled down by weak market confidence and banking sector and fiscal restructuring; growth was a modest 2.2 percent in the United States, weighed down by uncertainty in fiscal policy; and the Japanese economy grew by 1.9 percent, amid uncertainty over medium-term fiscal consolidation.

Growth has strengthened in high-income countries in 2013, reflecting ongoing progress in the rebuilding of these economies. On the demand side, aggressive monetary and fiscal stimulus measures

in Japan, an extremely accommodative monetary policy stance in the United States, and the European Central Bank's commitment to easy monetary policy are supporting growth. GDP growth in high-income economies accelerated to an annualized pace of 2.3 percent in Q2 2013 from 1.0 percent in the previous quarter, which represents the strongest high-income country GDP growth in nearly two years. After contracting at an annualized pace of 0.9 percent in Q1, growth in the Euro Area rebounded by 1.2 percent in the second quarter as the recession there bottomed. The United States also saw a sharp uptick in economic activity of 2.5 percent annualized rate in the second quarter, after a weak first quarter, while Japan continued to post solid gains in Q2, albeit at a slower pace. Initial data releases for Q3 suggest that the strengthening of economic activity in high-income countries is likely to be sustained.

Overall, developing-country growth is around trend, with variation across countries. GDP expanded by 4.8 percent in 2012. After slowing to 4.5 percent in Q1 2013, GDP growth picked up to 5.3 percent in the second quarter. Among large developing countries, economic activity in Q2 2013 strengthened in China (7.5 percent). Overall, however, the Chinese economy has been on a lower growth path since 2011 as the country slowly transitions from an investment-driven to a more consumer-based economy. Second quarter eeconomic activity also strengthened in Brazil (6.0 percent), Indonesia (5.6 percent), and Turkey (8.0 percent). In contrast, GDP growth in India decelerated to a two-year low of 3.7 percent as concerns over persistently high inflation and large fiscal and current account imbalances weakened domestic demand. July Industrial production data indicated a strengthening of economic activity in China, but weakening in Brazil and India. Purchasing Manager Indicator releases for August suggest that the divergent pattern of growth observed across developing economies in Q2 is likely to continue into Q3.
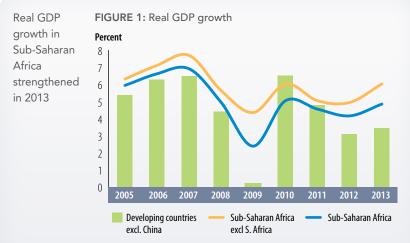
Concerns regarding the tapering of U.S. quantitative easing (QE) have driven U.S. Treasuries up by over 100 basis points since early May, sparking a slowdown of capital flows to developing countries. In June, gross capital flows to developing countries fell by some 50 percent, as investors adjusted their portfolios from developing-country assets to the increasingly more attractive U.S. Treasury bonds. This portfolio adjustment continued through July and August. As a consequence of these outflows and of structural challenges in some economies, sharp currency depreciations occurred in a number of large developing countries that benefited from earlier periods of U.S. monetary policy easing—notably, Brazil, India, Indonesia, and South Africa. Nonetheless, in September, the pressure on developing-country currencies eased in line with the U.S. Federal Reserve's (Fed's) announcement to continue its QE program.

Baseline projections indicate a strengthening trend in global economic activity between 2013 and 2015. Global GDP is expected to expand by a still subdued 2.3 percent in 2013, and strengthen to about 3.1 percent and 3.4 percent in 2014 and 2015, respectively. Yet downside risks remain. While over the short term the Fed's recent announcement buys time for developing countries with large imbalances and domestic structural problems, the longer-term challenges still remain. Another notable risk is the ongoing U.S. debt ceiling discussions. If the brinkmanship associated with these talks escalates, it could increase business uncertainty and weigh down on GDP growth both in the United States and elsewhere.
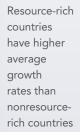
B. RECENT ECONOMIC DEVELOPMENTS IN SUB-SAHARAN AFRICA

Economic activity remains strong in much of Sub-Saharan Africa, with the pace of GDP growth in the region projected to pick up in 2013. After an increase of 4.2 percent in 2012,[1] GDP growth in Sub-Saharan Africa is projected to strengthen to 4.9 percent in 2013 (Figure 1). In 2012, GDP growth varied widely across the region from a contraction in output in Sudan, due to political developments, to double-digit growth in Niger and Sierra Leone, supported by the coming onstream of new mineral production in those countries. Median growth for the region was 5 percent, with about a third of countries in the region growing at 6 percent and above. Many of these countries have seen sustained high growth for several years. As in recent years, a number of African countries will continue to be among the fastest-growing countries in the world.
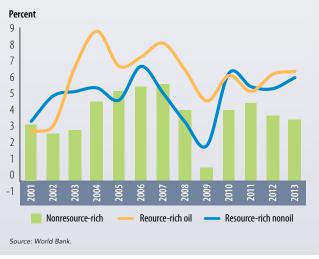
There is some variation in output performance across country groups (Figure 2). Resource-rich countries have higher average growth rates than nonresource-rich countries, similar to the pattern observed in the pre-crisis period (2003-08). Growth for both groups remains below pre-crisis levels. Within the resource-rich country group, the gap in growth between oil and nonoil countries has narrowed. Indeed, the nonoil resource-rich countries are averaging growth rates slightly above pre-crisis levels. Within the nonresource-rich country group, there are several countries that have achieved sustained high growth rates for over a decade, such as Ethiopia, Mozambique, and Rwanda. Among countries where growth is lagging pre-crisis levels is South Africa. Weak growth in major trading partners (especially Europe), labor unrest and mining strikes, burdensome regulations, and infrastructure gaps have held back the country's growth, which averaged 3 percent in 2010-12 compared to 4.6 percent in 2003-08.

GDP growth continues to be supported by robust domestic demand. Domestic demand has grown faster than GDP, thanks to strong growth in both investment in the productive capacity of the region's economies and household consumption. The expansion of commodity exports

Real GDP growth in Sub-Saharan Africa strengthened in 2013

FIGURE 1: Real GDP growth

Percent

Legend: Developing countries excl. China — Sub-Saharan Africa excl S. Africa — Sub-Saharan Africa

Source: World Bank.

Resource-rich countries have higher average growth rates than nonresource-rich countries

FIGURE 2: Real GDP growth in Sub-Saharan Africa, by country groups

Percent

Legend: Nonresource-rich — Reource-rich oil — Resource-rich nonoil

Source: World Bank.

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1 Excluding South Sudan, whose economy contracted by more than 50 percent as conflicts with Sudan crippled its oil industry.

remains an important part of the region's growth dynamics, although the contribution of net exports—exports minus imports—to GDP growth is overall negative (Figure 3).
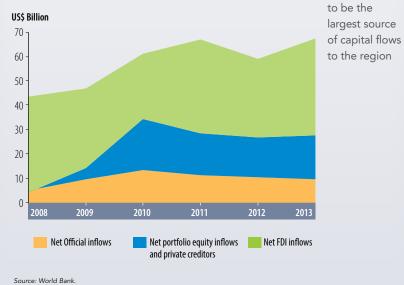
The region's growth is underpinned by strong private and public investment. Gross fixed capital formation in Sub-Saharan Africa has steadily increased from about 16.4 percent of GDP in 2000 to about 20.4 percent in 2011. The pickup in investment has not only contributed to growth directly, but has also helped boost the productive capacity of the region's economy. Foreign direct investment (FDI) flows to the region have steadily increased in recent years, and are projected to rise by 24 percent to about $40 billion in 2013. These flows accounted for over 50 percent of total capital flows to the region in 2010-12 (Figure 4). FDI continues to be the largest source of capital flows to the region and an important source of funding of current account deficits in the region, although its share in the total has been declining as other private flows have expanded. In a fourth of the region's countries the size of FDI inflows as a share of GDP averaged 10 percent or higher in 2010-11; in Chad and Liberia this share was over 20 percent.

FIGURE 3: Contribution to real GDP growth in Sub-Saharan Africa, demand-side factors

Growth is supported by robust domestic demand

Percent

Domestic demand ■ Net exports ■ Real GDP ━━

Source: World Bank.

FIGURE 4: Capital flows to Sub-Saharan Africa

FDI continues to be the largest source of capital flows to the region

US$ Billion

Net Official inflows ■ Net portfolio equity inflows and private creditors ■ Net FDI inflows

Source: World Bank.

Domestic investment has also been supported by lower interest rates, as inflation has decelerated and remains within target limits for most economies in the region. Investment has increasingly flowed to the natural resources sector, thanks to increased exploration and discoveries in recent years. However, the nonresources sector is also attracting increased flows, in particular to the services sector, where rising consumer incomes are buoying activity in service subsectors such as telecommunications, finance, retail, real estate, and transportation. Indeed, a sectoral breakdown of cross-border mergers and acquisitions for the Africa region shows that during 2010–11, the services and manufacturing sectors attracted an average of 53.4 percent and 33.5 percent, respectively, of all merger and acquisition purchases in the region. In contrast, the primary sector accounted for only 13.2 percent. Similarly, the services and manufacturing sectors attracted some 33.6 percent and 41.2 percent of all greenfield FDI into Africa.

Weaker commodity prices could dampen investment flows in the resources sector. While commodity prices still remain at historical highs, they have further weakened in 2013, particularly for metal and minerals, thus raising questions on how this could be impacting investment flows to the sector. An added concern, of course, is that falling commodity prices coupled with tighter financial conditions in global markets could potentially lead to balance-of-payment problems. Using imports of equipment to get an indication of the most recent strength in investment into capital-equipment-intensive sectors, including mining, we observe that indeed, on a year-to-date basis, imports of capital equipment contracted by 1.7 percent in value terms in the six-month period ending in June 2013 compared to the same period a year ago. While it is too early to suggest that this marks a possible trend deceleration of investment in the resources sector, since this could also reflect a payback from a particularly strong 33.6 percent annualized pace expansion in Q4 2012, if the slide in metal and mineral prices persists, the incentive for investments in sector will decrease. Nonetheless, current prices are still significantly higher than they were a decade ago.

Across the region, governments have stepped up investment spending. Public investment in most countries in the region—for example, Ethiopia, Ghana, Namibia, Niger, Nigeria, South Africa, Tanzania, Uganda, and Zambia—continues to be geared toward the provision of basic infrastructure (particularly power generation, and roads and port facilities), which remains a critical binding constraint to improving competitiveness in the region. Increasingly, such infrastructure projects are being financed from new funding sources, including from some large developing countries (in particular, China, but increasingly from Brazil and India). In addition to raising funds from new bilateral sources, Sub-Saharan African sovereigns have continued the recent trend in raising funds from international capital markets. Through August 2013, some $4.75 billion had been raised by economies in the region compared to $3.25 billion for the same period in 2012. Countries that have already tapped into international markets in 2013 include Rwanda, with a $400 million maiden Euro bond issue; Nigeria, with $1 billion in issuance; and Ghana, with a $750 million bond issue. Other Sub-Saharan African countries, including Angola, Kenya, and Tanzania (which successfully raised $600 million in a private placement in March of this year), have expressed plans to soon float international bonds.
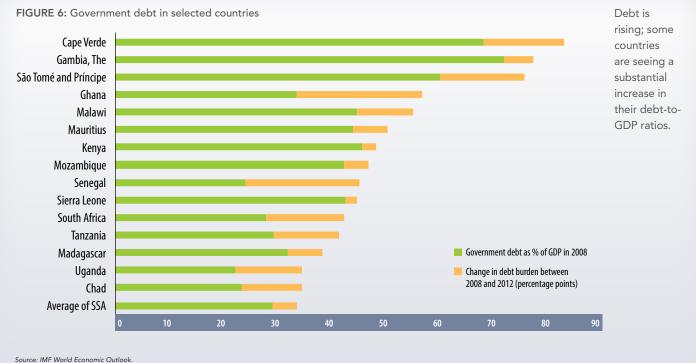
Government spending is generally expansionary, and fiscal buffers in the region are yet to be restored to their pre-crisis levels. The expansionary fiscal policy in the region is reflected in the 0.3 percentage point deterioration in the cyclically adjusted fiscal balances in 2012 (Figure 5). A further 1 percentage point deterioration is projected in 2013 (IMF),[2] with the largest deterioration occurring among oil exporters. Large

The overall fiscal balance in the region weakened, with oil exporters seeing the largest decline.

FIGURE 5: Fiscal balance in Sub-Saharan Africa

(%, fiscal balance as a share of GDP)

Legend: 2011, 2012e, 2013f

Source: IMF World Economic Outlook.
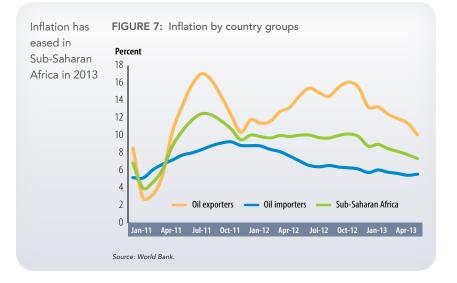*Note: e = estimate; f = forecast*

positive output gaps are emerging in some countries, suggesting that further expansionary fiscal policy could actually be counterproductive, because it could induce macro instability, with negative impacts on the investment environment and growth. The challenge for policy makers is to ensure that the hard-earned gains of the last 15 years in terms of macroeconomic and fiscal stability are preserved, while continuing to lay the foundation for long-term growth.

Government gross debt-to-GDP ratio, though rising, is overall moderate. The debt ratio has edged up from 29 percent of GDP in 2008 to over 33 percent in 2012. There remain significant differences among countries in the region, however, with the debt-to-GDP ratio being as low as 8 percent in Equatorial Guinea and as high as 83 percent in Cape Verde (and even higher in Eritrea). A few countries such as Ghana and Senegal have seen a sharp rise in debt ratios in recent years (Figure 6). Recent results from IMF-World Bank debt sustainability analysis for 37 International Development Association (IDA) countries show that the number of countries in debt distress or at high risk of distress fell from 17 to 7 between 2006 and 2012. The number of countries at low risk of debt distress more than doubled to 13 during this period. Overall, debt profiles remain sustainable for most countries in the region, but are a rising concern for a few economies. Countries accessing international capital markets and nonconcessional financing will need to pay careful attention to debt dynamics and to debt sustainability considerations.

Household consumption remains buoyant, supported by favorable weather conditions, decelerating inflation, and rising remittances. Weather conditions to date in 2013 have been more favorable particularly in the West African (Benin, Burkina Faso, Chad, Gambia, and Togo) and East African subregions (Kenya,

FIGURE 6: Government debt in selected countries

Debt is rising; some countries are seeing a substantial increase in their debt-to-GDP ratios.

■ Government debt as % of GDP in 2008
■ Change in debt burden between 2008 and 2012 (percentage points)

Source: IMF World Economic Outlook.
Note: Countries with debt-to-GDP ratio ≥ 35% in 2012 and with an increase in this ratio between 2008 and 2012.

FIGURE 7: Inflation by country groups

Percent

Source: World Bank.

Uganda) relative to a year earlier, thus supporting agricultural household incomes there.[3] Inflation for the region has eased steadily, as countries have generally pursued prudent monetary policies, declining to a moderate 8.4 percent in June 2013 from 12.7 percent (year-over-year [yoy]) in June 2012 (Figure 7). Remittance inflows to the region remain robust and are projected to increase to $33 billion in 2013 from $31 billion in 2012. All these factors are providing support to household incomes and consumption. Although high-frequency consumption data for much of the region are not available, the 6 percent (yoy) expansion in aggregated imports for the first half of 2013, notwithstanding a 1.7 percent decline in capital equipment imports, suggests that private consumption, which accounts for over 60 percent of regional GDP, remains robust.

The region's export performance is being adversely impacted by the decline in commodity prices. In value terms, goods exports from the region contracted by 4.1 percent for the first six months of 2013. According to World Bank commodity composite price indexes, prices of agricultural goods, metals and minerals, and oil declined by 9.0, 8.8, and 5.6 percent, respectively, in the first six month of 2013, compared to the same period a year ago (Figure 8). Hence, given the preponderance of commodities in the export basket of the region's economies, this decline in commodity prices has undoubtedly dampened the export receipts in the region, even though on a volume basis exports are likely up (since the price decline is sharper than the decline in value). The increase in export volumes, particularly for the oil- and mineral-rich economies, has been supported by the coming onstream of past investments in existing and new mines in several countries in the region, including Mozambique, Niger, Sierra Leone, and Zambia.

Commodity
prices
weakened
in 2013 but
still remain
elevated

FIGURE 8: Commodity prices

Price index, 2005=100

Source: World Bank.

Tourism is an increasingly important driver of growth in several Sub-Saharan African countries. This includes traditional destinations such as Cape Verde, Kenya, Mauritius, and the Seychelles, and newer destinations such as Rwanda. Data from the UN World Tourism Organization (UNWTO) show that growth in tourist arrivals to the region in 2012 was sustained in the first half of 2013 with international tourist arrivals in the region already up 4 percent compared to the same period a year ago. Among the destinations for which quarterly data are

3   Flooding in parts of Mozambique and Nigeria impacted agricultural household incomes there.

Strong export growth has underpinned Sub-Saharan Africa's economic expansion. During 2002–12, the region's total merchandise exports (in value terms) grew at an average annual rate of 14 percent, rising from $100 billion to $400 billion. Much of this impressive performance is driven by the region's natural resources, underpinned by the commodity price boom of 2003–08. Oil, metal, and other mineral exports increased from $56 billion in 2002 to $288 billion in 2012, and oil exports alone accounted for over half of goods exports in 2012. Together, these commodities have contributed to over two-thirds of total export growth during this period. While high commodity prices have helped the region in recent years, the heavy reliance on resource-based exports also makes the region highly vulnerable to shocks in commodity prices, as was observed during 2009.

Sub-Saharan Africa's resource-rich countries have made little progress in diversifying their exports. This is particularly evident in oil-exporting countries, where oil accounted for over 85 percent of total exports in 2011—a trend that has persisted for many years. Overall, 11 countries out of 47 rely on a single commodity for 50 percent of export earnings. Most of these are primary commodities, especially oil. The share of oil in total exports in 2011 was over 97 percent in Angola and around 85 percent for Nigeria. In some countries, agricultural commodities have a large share, for example, cashew nuts (93 percent) in Guinea-Bissau, coffee (70 percent) in Burundi, and tobacco (53 percent) in Malawi. Nearly three-quarters of countries rely on three commodities for 50 percent or more of export earnings. The export concentration ratio, which reflects the degree to which a country's exports are concentrated in a small number of products or a small number of trading partners, shows substantial variation across country groups (Figure 9).[4] The value of this measure is highest for oil-rich countries (with a value of 0.76), followed by resource-rich nonoil exporters (at 0.48). Nonresource-rich countries had the lowest degree of concentration (at 0.39).
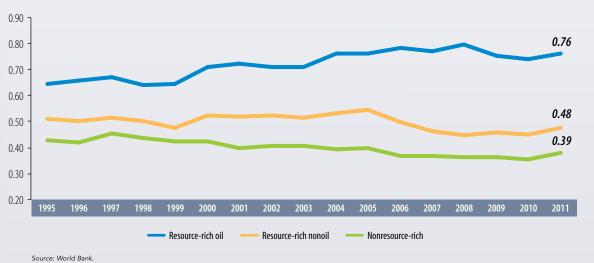
FIGURE 9: Export concentration ratio by country groups, 1995–2011

The export concentration ratio is highest in resource-rich oil countries

Source: World Bank.
Note: Export contentration ratio ranges from 0 to 1 with 1 representing the highest level of concentration.

Although Sub-Saharan Africa's exports have remained concentrated in a few commodities, countries have made progress in diversifying their trading partners. China, along with the other BRICs, now accounts for 36 percent of the region's exports, up from only 9 percent in 2002.[5] In 2012, Sub-Saharan Africa's exports to the BRICs reached $144 billion—just shy of the level of exports to the EU and the United States combined ($148 billion). China is the largest destination for African exports and accounted for a quarter of the region's exports—predominantly primary commodities.

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4   A country that exports one product to only one trading partner has a perfectly concentrated export portfolio and an export concentration ratio of 1. Conversely, a country whose exports comprise a larger number of products and that trades with a larger number of trading partners has a low export concentration ratio.
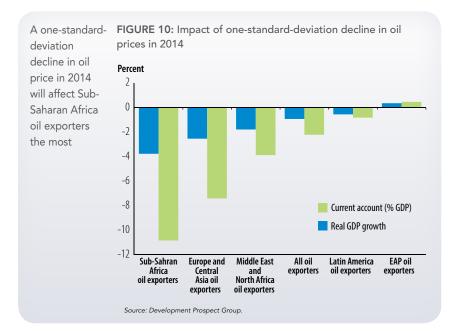
5   The BRICs are Brazil, China, India and Russia.

available, the strongest performers were Cape Verde (+18%), followed by the Seychelles (+13%), South Africa (4%), Swaziland (+2%), and Mauritius (+1%). In Kenya and Madagascar, international tourist arrivals contracted 12 and 21 percent, respectively, due in part to political instability. International tourist arrivals in the region are expected to remain robust in the second half of 2013; UNWTO forecasts tourist arrivals to the region to expand by up to 6 percent in 2013, with emerging economy outbound markets driving growth.

C. MEDIUM-TERM OUTLOOK

Supported by robust domestic demand, rebounding oil production in South Sudan, and the ongoing strengthening of activity in the global economy, GDP growth for Sub-Saharan Africa is expected to strengthen to 4.9 percent in 2013 and pick up to 5.3 percent in 2014 and 5.5 percent in 2015. Yet recovery in the global economy still remains fragile, with downside risks emanating from the potential of a long-term decline in commodity prices and from the impacts of higher global interest rates arising from the inevitable tapering and/or tightening of lax monetary policy in high-income countries.

A long-term structural decline in commodity prices is of particular significance for resource-dependent African countries, and represents an important source of vulnerability. Compared to their levels over a decade ago, prices of most commodities have been on an upward trend: the World Bank's energy index and metals and minerals index have risen by some 162 percent and 118 percent, respectively, between 2000 and 2013. However, commodity prices are cyclical by nature,[6] since higher prices incentivize increased investment in the resources sector, generating a lagged supply response, which could be inconsistent with current demand, thereby triggering a slide in prices. While specifying the timing of turning points is extremely difficult, it would be imprudent to assume that current high commodity prices will remain indefinitely or that only a smooth adjustment to long-term prices, as in the baseline, is the only likely outcome. Indeed, on a year-to-date basis, metal prices have sharply declined for nickel (19 percent), aluminum (13 percent), copper (11 percent), and t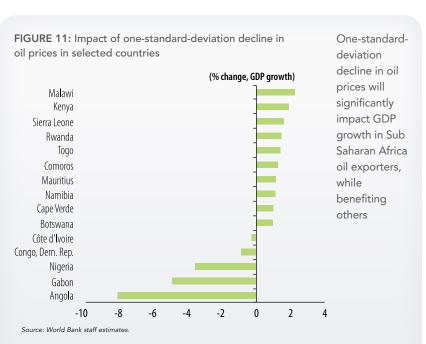in (4 percent) due to persisting large stocks, steady increases in supply, and weaker Chinese demand (China accounts for approximately 40 percent of global metal consumption).

Against this backdrop, we carry out two separate simulations (an oil and a metal price shock) to quantify the impact of commodity price declines on Sub-Saharan African economies. Each simulation is carried out by introducing a one-standard-deviation decline in commodity prices from those envisaged under the baseline in 2014. Both simulations are carried out using the World Bank's global macroeconometric model. The simulations are designed to illustrate the vulnerability to commodity price shocks.

A one-standard-deviation decline in oil price in 2014 will affect Sub-Saharan Africa oil exporters the most

FIGURE 10: Impact of one-standard-deviation decline in oil prices in 2014

Source: Development Prospect Group.

6   See "Global Economic Prospects," World Bank, Washington, DC, 2009, p. 55.

The results of the oil price simulation, which represent a $30 decline in oil price over the baseline level, show that among developing regions, Sub-Saharan Africa is the most impacted, with GDP growth declining by some 1.3 percentage points and current account balances worsening by 4.5 percentage points in 2014 compared to current baseline projections. Nonetheless, there are differentiated impacts across countries in the region, because the terms of trade effects differ depending on the commodity composition of the export basket of countries in the region. Not surprisingly, the worst-hit countries in the region from this simulation were the oil exporters, where the GDP decline relative to the baseline was 3.8 percentage points and the current account worsened by 10.8 percentage points (Figure 10).

In contrast, the region's oil importers benefited from the decline in oil prices, with GDP up by some 0.61 percentage points and current account balances improving by 0.77 percentage points. However, even among the oil exporters, we observe the less economically diversified economies such as Angola and Gabon (the oil sector accounts for over 60 percent of GDP) being the hardest hit compared to Cote d'Ivoire. This reflects the importance of economic diversification in the ability to absorb these shocks (Figure 11). As with the oil price simulation, the results of the metal and mineral price simulation shows the metal and mineral exporters in the region, such as Botswana, the Democratic Republic of Congo, Ghana, Mozambique, and South Africa, being the worst impacted, whereas nonmetal and nonmineral exporters, such as Cape Verde, Kenya, and Togo, are among the benefiting countries (Figure 12).

For economies that would suffer negative terms of trade effects, a sharp adjustment can be avoided if the appropriate policy space and diversification of economies is created before any steeper decline in commodity prices were to take place. Indeed, as observed in 2009, when commodity prices plunged, real GDP growth in Sub-Saharan Africa (excluding South Africa) expanded by 4.1 percent, with the relatively economically

FIGURE 11: Impact of one-standard-deviation decline in oil prices in selected countries

(% change, GDP growth)

Source: World Bank staff estimates.

One-standard-deviation decline in oil prices will significantly impact GDP growth in Sub Saharan Africa oil exporters, while benefiting others

FIGURE 12: Impact of one-standard-deviation decline in metal prices

(% change, GDP growth)

Source: World Bank staff estimates.

One-standard-deviation decline in metal prices will adversely impact metal exporters in the region

diversified economies being hit less hard. For example, oil exporter Nigeria, grew by 7 percent in 2009 thanks to expansion in its services sector, in contrast to Gabon, which saw GDP contract by 2.9 percent. However, one issue of concern is that unlike in 2008, when fiscal balances in the region were in a relatively stronger position, fiscal buffers for several countries in the region are yet to be rebuilt, thereby limiting the ability of governments in the region to respond in a countercyclical way.

A disorderly increase in interest rates represents another potential source of downside risk. Thanks to extraordinary monetary easing measures carried out in high-income countries, yields on benchmark high-income-country bonds such as U.S. Treasuries and German Bunds have hovered around historically low levels in recent years. Hence, the search for yields among investors has supported strong capital flows to developing countries in recent years, including Sub-Saharan African countries. Some countries in the region have been able to raise bonds in international capital markets for the first time, and frontier market countries such as Kenya and Nigeria have seen significant portfolio inflows in local securities markets. Although FDI continues to dominate private capital flows to the region, there has been an upward shift in the share of net portfolio equity and other private flows (excluding FDI) since 2008.

Although recent statements by the Fed indicate a continuation of its quantitative easing measures, the inevitability of tapering and the subsequent rise in base interest rates and spreads still remain. Indeed, part of that adjustment has already started, notwithstanding the current pause due to the September Fed announcement that it would continue its quantitative easing measures at the same pace for the time being. Econometric evidence suggests that developing-country spreads tend to rise when base rates increase. A recent World Bank study[7] suggests that a 100-basis-point increase in high-income-country base rates is associated with a 110-to-157-basis-point-increase in developing-country yields.

Hence, the implications of the increase in base rates are an increase in the cost of raising capital for developing countries, including those in Sub-Saharan Africa, with deleterious consequences on investment and growth. Indeed, in the June–August period, financial markets were roiled, with steep declines in gross capital flows to developing countries due to the expectation then that tapering of the U.S. quantitative easing measures was imminent. Sub-Saharan African countries that are more integrated with global financial markets were not immune. South Africa, which has strong links with global financial markets, is particularly vulnerable to capital flow movements, since debt-creating flows finance around 80 percent of the current account deficit.

Global food commodity prices have declined, but remain high.

FIGURE 13: International food commodity prices

Source: World Bank.

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7   Global Economic Prospect 2010.

Between early June and late August, the rand lost 7 percent of its value as portfolio flows retreated. Furthermore, although Ghana successfully raised $750 million in the Euro bond market in July, the issue came at a higher coupon rate of 7.875 percent compared to the yield on the 10-year 2017 bond that traded on the secondary market for as low as 4.24 percent in April.

Globally, the immediate risk from food price spikes appear contained for now. Recent food price developments show that the price of major food commodities—maize, sorghum, rice, and wheat—declined from January to August 2013 (Figure 13). Although the World Bank Food Price Index declined by 8 percent during that period, prices increased slightly in May and June 2013. Since June, prices were 20 percent lower for maize, 6.8 percent lower for sorghum, 8.6 percent lower for rice, and 2.5 percent lower for wheat. Increased production following better weather conditions, increase in stocks, and weaker demand from large importers are all key factors in the continuing decline of food commodities from their recent peak of 2011–12. Food commodities are also experiencing lower volatility, although recent levels of volatility still remain high even by historical standards.

Domestic prices of staples across the region followed mixed patterns in the last quarter, with significant increases experienced in parts of Central and Southern Africa. In West and Central Africa, prices of locally produced millet, maize, and sorghum increased seasonably over the last three months; however, they remained well below price levels from last year. In Chad, the prices of sorghum and rice increased by 3.8 and 1.3 percent, respectively, while the price of maize experienced a slight uptick of about 0.6 percent. Similarly, the price of millet spiked by about 18 percent—still 3 percentage points lower than its peak a year earlier. Meanwhile in Burkina Faso, Mali, and Niger, improved security and favorable harvests were reflected in lower prices of sorghum and millet.

Droughts in parts of Southern Africa have tightened maize supplies. In Mozambique, maize prices increased by over 9 percent in Maputo; some markets saw price levels between 39 and 64 percent higher than a year ago. While regional production levels are similar to last year, lower surplus and fewer carry-over stocks have reduced the availability of maize exports within and outside the region. In Malawi, maize prices in all markets increased between 10 to 38 percent—over 70 to 128 percent higher than a year ago. According to the World Food Programme, close to 1.5 million rural people in the country are facing severe food shortages. Poor weather has affected production in the Northern and Central regions of the country.

Section 2: The Challenge of Accelerating Africa's Poverty Reduction

▶ Despite the continent's growth turnaround and progress in the fight against poverty during the last decade, poverty in Africa remains unacceptably high, and the pace of reduction unacceptably slow.

▶ Almost one out of every two Africans lives in extreme poverty today. Optimistically, that rate will fall to between 16 percent and 30 percent by 2030. Under any plausible scenario, most of the world's poor people by that date will live in Africa.

▶ Sustained growth is necessary—but not sufficient—to meet the challenge of accelerating poverty reduction in Africa.

▶ The region's high inequality weighs down on the growth elasticity of poverty, estimated at -0.7 compared to -2.0 in the rest of the developing world excluding China, and hinders the conversion of growth into poverty reduction.

▶ Faster reduction in poverty is possible, but it will require a decline in inequality—in both outcomes and opportunities.

▶ Growth with equity in Africa will require: (i) resilience to external shocks; (ii) improvements in agricultural productivity; (iii) productive nonagricultural jobs in both rural and urban areas, and (iv) better safety net programs, particularly in countries benefiting from large economic rents from natural resources.

A. AFRICA'S POVERTY STATUS IN PERSPECTIVE

Sub-Saharan Africa's economy expanded at an estimated 4.6 percent per year during 1999–2010 (5.2 percent excluding South Africa), thereby exceeding the average annual growth rate of the rest of the developing world (excluding China) by more than 0.9 percentage points (Figure 14). Three of the world's 10 fastest-growing countries were in Sub-Saharan Africa. Poverty also declined. An estimated 58 percent of people in Sub-Saharan Africa were living on less than $1.25-day around the turn of the millennium. By 2010, the poverty headcount ratio declined to an estimated 48.5 percent.
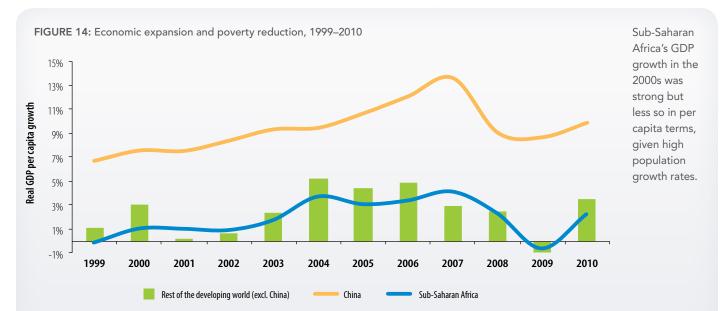
Africa's experience during the 2000s marks a remarkable shift from the 1980s and early 1990s, when economic growth was dismal and its population became further impoverished. Despite these successes, still more people are likely living on less than $1.25 a day in Sub-Saharan Africa today than at the turn of the millennium—an estimated 413 million in 2010 compared with 376 million in 1999.

One reason is that Sub-Saharan Africa's population has also continued to expand rapidly (by 2.7 percent a year), resulting in a more modest expansion of its GDP when expressed in per capita terms (by about 1.9 compared to 4.6 percent).[8] Looking ahead, population growth is expected to remain strong, with another half billion people to be added to the region by 2030, reaching more than 2 billion people (or almost three times Europe's population) by 2050 (medium fertility variant, UN, World Population
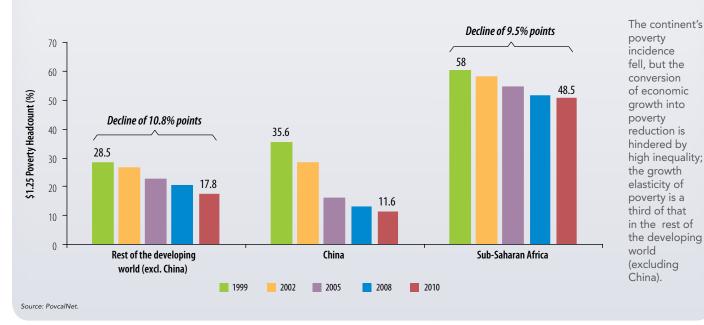
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8   In per capita terms, GDP growth in the rest of the world (excluding China) during 1999–10 slightly exceeded GDP growth in Sub-Saharan Africa.

Prospects: 2012 Revision).[9] In addition, the conversion of Africa's growth into poverty reduction has been hindered by higher initial inequality, the challenges of harnessing gains from mineral exploitation for the benefit of the broader population, and continuing underperformance of its agricultural sector, even though the latter has been showing signs of improvement recently.

Moreover, Sub-Saharan Africa was not alone in picking up the pace in reducing poverty among its citizens. During 1999–2010, poverty reduction proceeded faster in the developing world outside Sub-Saharan Africa (including China), from an estimated $1.25 headcount of 30.6 percent in 1999 to 16.1 percent in 2010. This happened even though poverty started from lower levels, making further

FIGURE 14: Economic expansion and poverty reduction, 1999–2010

Sub-Saharan Africa's GDP growth in the 2000s was strong but less so in per capita terms, given high population growth rates.

Legend: ■ Rest of the developing world (excl. China) — China — Sub-Saharan Africa

Source: World Development Indicators and Global Economic Prospects.

Decline of 9.5% points

Decline of 10.8% points

Decline of 9.5% points

Rest of the developing world (excl. China): 28.5 ... 17.8
China: 35.6 ... 11.6
Sub-Saharan Africa: 58 ... 48.5

Legend: ■ 1999 ■ 2002 ■ 2005 ■ 2008 ■ 2010

The continent's poverty incidence fell, but the conversion of economic growth into poverty reduction is hindered by high inequality; the growth elasticity of poverty is a third of that in the rest of the developing world (excluding China).

Source: PovcalNet.

9   The population of Sub-Saharan Africa expanded from 649.5 million inhabitants in 1999 to 853.6 million in 2010.

reductions arguably more challenging. The number of people living on less than $1.25-day declined by more than 500 million.

To be sure, China accounted for more than half of this decline. It sustained its very strong economic growth of the 1980s and 1990s into the first decade of the 2000s. But very high economic growth was also coupled with a low population growth rate, resulting in a high ratio of working-age adults to dependents (enabling the so-called demographic bonus) and high expansion of GDP, also in per capita terms. Renewed investment in the rural countryside since the 2000s (including in agriculture) and the introduction of social assistance and redistribution programs (such as the New Cooperative Medical Scheme and the Minimum Livelihood Guarantee Scheme, popularly known as Dibao) further helped slow China's rising inequality (to an estimated Gini of around 42 since 2002). The benefits of growth were spread out more widely again, after poverty reduction had slowed during the 1990s.[10]

But poverty during the 2000s also declined more rapidly in the rest of the developing world (excluding China), where economies did not expand as fast as China. The $1.25 headcount declined from 28.5 percent in 1999 to 17.8 percent in 2010, corresponding to a reduction in the number of people living on less than $1.25-day by about 244 million. This happened not only because per capita GDP growth was slightly higher than in Africa, following a slower expansion of the population, but also because of a much better conversion of economic growth into poverty reduction. In effect, the estimated growth elasticity of poverty since 1990 (excluding China) was estimated to be almost three times the growth elasticity of poverty in Sub-Saharan Africa (-2.0 compared to -0.7) (Christiaensen, Chuhan-Pole, and Sanoh 2013).

Inspired by this recent achievement of broad and substantial progress in poverty reduction across the developing world,[11] and Africa's dramatic turnaround after many years of decline, the international community has become bolder, aspiring to "bend the arc of history" and virtually eliminate extreme poverty worldwide. This is one of the twin goals recently adopted by the World Bank's Governing Board. The target is intended as a global aggregate and specified as reducing the *global* $1.25-a-day poverty headcount ratio to 3 percent by 2030. Based on the available data, this implies lifting more than 1 billion people out of poverty. In conjunction, and reflecting the world's rising concern about inequality, promoting shared prosperity in every country is adopted as the second goal, translated as promoting the growth in incomes of the poorest 40 percent in each client country.

The "3 percent by 2030" target could be achieved, for example, if GDP per capita in all countries grew at a steady 4.2 percent and inequality within countries remained unchanged. This is about the rate at which household incomes in the developing world as a whole have been growing during the last decade,[12] and has been the basis for setting the target at this level. A linear extrapolation of the poverty headcount time series since 1980 yields a similar global poverty rate of 3 percent (Ravallion 2013b). Nonetheless, the target is clearly, and rightly, ambitious.
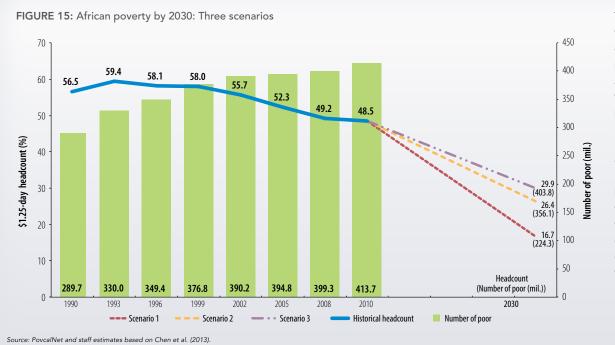
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10 China's Gini coefficient rose from 29.1 in 1981, to 39.2 in 1999, stabilizing around 42 since 2002. Rapid growth in agriculture following its pro-market reforms since 1978, coupled with low inequality in key physical (land) and human (health and education) assets, reflected in low initial income inequality, drove China's poverty revolution during the 1980s (Ravallion 2011). The pace of poverty reduction slowed during the early and late 1990s when rural-urban and coastal-interior provincial inequalities rose fast. In response, China reversed the rural-urban fiscal flows (Christiaensen 2012).

11 More broadly, the decline in global poverty has accelerated dramatically since 1950, with 1.5 billion people lifted out of ($1-a-day) poverty since then (Ravallion 2013a).

12 As reflected in household survey data.

What are the ramifications of the global "3 percent by 2030" target for Africa's poverty status now and in 2030? A number of scenarios are considered (Figure 15). First, with all countries individually growing at 4.2 percent and keeping within-country inequality unchanged,[13] the developing world's $1.25 poverty headcount would decline to 3 percent, Sub-Saharan Africa's would register at 16.7 percent, and four out of five poor people in the developing world would be living in Sub-Saharan Africa (224.3 million out of 278.9 million) (Figure 15, scenario 1).

And yet, this is in fact a very optimistic scenario for Sub-Saharan Africa. First, it would require African countries to exceed their historical GDP per capita growth rate over the 2000-2010 period by 2.3 percentage points. Second, it assumes that household incomes would expand at the same rate as GDP, which is usually not the case (GDP includes several other sectors besides personal consumption such as government and external balances, which usually grow faster). Third, under the scenario, incomes grow at the same rate across the distribution (inequality-neutral growth). This is not obvious, especially not in mineral-rich countries where mineral exploitation and services (often with heavy public wage employment) have been driving growth.

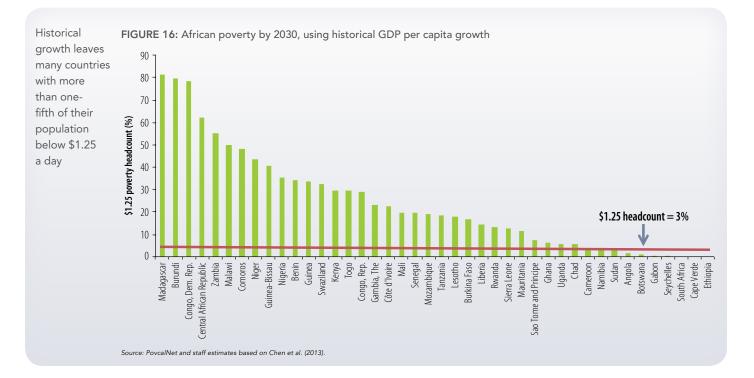**FIGURE 15:** African poverty by 2030: Three scenarios

The ramifications of the global "3 percent by 2030" target for Africa's poverty status is considered in a number of scenarios. Poverty could be reduced from a half, to between one-sixth and one-third of the population.

Source: PovcalNet and staff estimates based on Chen et al. (2013).

Note: Scenario 1 ($1.25 headcount of 3 percent by 2030, 4.2 percent per capita growth by country); Scenario 2 (country's historical GDP per capita growth rate over the last decade); Scenario 3 (country's historical household survey per capita income growth over the last decade).

In a second, "business as usual" scenario (again assuming no change in within-country inequality) (Figure 15, scenario 2), household incomes expand according to their country's historical GDP per capita growth rate over the last decade. This would bring the poverty rate in Sub-Saharan Africa down to 26.4 percent, compared to 16.7 percent under scenario 1. An estimated 356.1 million people would be left in poverty

13 Achieving 4.2 percent GDP growth per capita in each country is a more demanding proposition than achieving the same rate globally. Over the last decade, especially some of the larger countries (China, India) have been growing quickly. Moreover, since income growth at the household level is usually smaller than GDP growth, implicitly a slightly higher GDP per capita growth rate is assumed.

(out of an estimated 456 million globally). The headcount rate would remain well above 20 percent in almost half of Africa's countries, and at more than 40 percent in 10 countries (Figure 16). At the same time, poverty would also drop below 10 percent in about 10 countries. Most of these countries are, however, mineral-rich countries (except Ghana and Uganda), where the assumption of inequality-neutral growth, under unchanged policies, is optimistic.

Historical growth leaves many countries with more than one-fifth of their population below $1.25 a day

FIGURE 16: African poverty by 2030, using historical GDP per capita growth

Source: PovcalNet and staff estimates based on Chen et al. (2013).

Using historical household survey per capita income growth rates (instead of per capita GDP growth) as in Scenario 3, Figure 15, the remaining $1.25 poverty headcount ratio in 2030 will be even higher (29.9 percent). If successful in achieving those growth rates, 2 out of 7 Africans would still be living in poverty (and 7 out of 8 poor people in the developing world would be in Sub-Saharan Africa). However, given the tailwinds of high commodity prices and abundant liquidity of the last decade, even this scenario may still be somewhat optimistic, although the macro, business, and governance environments have also improved.

The scenarios illustrate the challenge of accelerating the reduction of poverty in Africa. Despite the continent's growth turnaround over the last decade and its progress in the fight against poverty, the world's poverty will increasingly be concentrated in Africa, moving the continent even more to the center stage in the global fight against poverty. To be sure, substantial noise surrounds the seeming exactness of these simulated scenarios, including due to the weak statistical foundations of poverty and national account estimates in Africa. Therein also lies a first important policy agenda, that is, to improve the quality and frequency of Africa's macro- and microeconomic data collection and statistics generation (Box 2). This is necessary both to monitor progress toward the goals and to enable rigorous empirical policy analysis on how best to reach them.

Regular, reliable statistics are key for measuring progress and policy analysis. Yet Africa's development statistics are wanting.[a] The April edition of *Africa's Pulse* in 2013 already elaborated on the quality of the national accounts and poverty data, and how understanding discrepancies in price deflators (GDP versus Consumer Price Index) can help reconcile some of the "growth-without-poverty-reduction" paradoxes, as in Tanzania. Agricultural statistics, a key component in estimating GDP and critically important for understanding poverty, may be in even direr straits.

The issues are many, as documented by Carletto, Jolliffe, and Banerjee (2013), including the inherent challenge of measuring yields of crops harvested throughout the year, such as cassava, and the use of nonstandard units in field surveys.[b] More importantly, different institutions within the same country often produce quite different estimates, as illustrated by the 2006/07 maize yields in Malawi reported by the routine data system of the Ministry of Agriculture, the National Census of Agriculture and Livestock, and the Integrated Household Survey by the National Statistical Office, which ranged between 1.6 tons and 2.6 tons per hectare. Such large degrees of variation also make assessing progress over time quite difficult.[c] In addition to issues of quality, many socioeconomic statistics are simply not available on a sufficiently regular basis, or are based on outdated reference years. For example, GDP base years are currently more than 10 years old in close to half of the countries in Sub-Saharan Africa, and a trend in poverty over the last 10 years could not be observed in about one-third.[d] Urgent attention to the matter is needed.

Against this background, the Report by the High-level Panel of Eminent Persons on the Post-2015 Development Agenda has called for nothing less than a data revolution to improve the quality of statistics available to policy makers and citizens. Technology can help. For example, the proliferation of mobile phones in Sub-Saharan Africa could be exploited to collect information on the socioeconomic conditions of households with high frequency. This is currently being tested in a series of experiments.[e] Combined with imputation techniques, this information may then also be used to estimate trends in poverty (Christiaensen et al. 2012). The quality of core agricultural statistics such as crop yields could be improved using inexpensive handheld Global Positioning System (GPS) tools.[f] The use of Computer Assisted Personal Interviewing (CAPI), whereby tablets are used to conduct the interview instead of pen and paper, can help reduce interviewing costs, speed up the availability of household survey statistics, and improve data accuracy by introducing quality checks directly into the interview and survey process. Immediate feedback during the fieldwork, based on ready analysis of the data, can further anticipate and reduce the occurrence of systematic errors.

But institutional change will also be needed. The availability of high-quality statistics is ultimately driven both by demand and incentive compatibility in their supply.[g] Increasing attention to results in the development and national policy debates and the rise of bottom-up accountability in assessing government performance are increasingly helping demand. Responding to this demand will require strengthening Africa's statistical systems, including the expansion of its current cadre of statistical professionals, and ensuring their financial and political independence. For external partners, first steps in supporting this process include coordinating their efforts by jointly building on the National Statistical Development Strategies and making support to countries' statistical systems part and parcel of development assistance.

Note: a. Morton Jerven's 2013 book, *Poor Numbers – How We are Misled by African Development Statistics and What to Do about It*, is suggestive, and the former World Bank Chief Economist of the Africa Region, Shantayanan Devarajan, most recently spoke of "Africa's Statistical Tragedy." b. For example, in Malawi, the weight of a 50-kilogram (kg) sack filled with crops was documented to range between 43 kg (ground bean) and 77 kg (bean), depending on the crop. And for many crops, such as bunches of bananas and pieces of cassava, quantifiable proxies do not even exist. c. Different methodologies partly underpin these differences. More importantly, there is often also little guidance on how to adjudicate between these numbers given the lack of meta data and proper documentation of the methodologies, and the different degrees of political independence of the responsible agencies. d. Fifteen countries did not have a household expenditure survey within the last five years and one within a five year interval before that. e. See Demombynes, Gubbins, and Romeo (2013) for lessons from South Sudan. f. Systematic comparisons of farmer estimates of cultivated land area and GPS-measured plots show, for example, a systematic overestimation of the plot size when landholdings are small, and a systematic underestimation when they are large, suggesting that smaller farmers may have been more efficient than previously thought and larger farmers less efficient (Carletto, Savastano and Zezza 2013). g. Statistics are as much social constructs as facts, and conflicts of interest may, for example, explain why administrative data on health, education, and agriculture are often overestimated compared with the findings from independent surveys (Sandefur and Glassman 2013). For example, following the introduction of cash payments for every additional child immunized with the third dose of the vaccine against diphtheria, tetanus, and pertussis (DTP3) in 2000, by the Global Alliance for Vaccination and Immunization (GAVI), much faster progress in immunization rates was observed in the administrative data than in the household surveys.

Despite uncertainty due to data weaknesses, it is clear that Africa's poverty reduction must be accelerated. This will first require sustaining robust GDP per capita growth, both by stimulating expansion of the economy and by dampening the rate of expansion of its population. The benefits of the latter will be felt only over time.[14]

Yet this does not nullify the urgency of accelerating Africa's fertility transition. The latter would start reducing poverty directly by reducing the dependency ratio, increasing the country's workforce relative to its dependents, reducing its social spending, and increasing the savings rate (World Bank 2013). If accompanied by appropriate policies to stimulate job growth, it would help bring Africa's demographic bonus forward. It could further bring down inequality, as in Latin America, where demographic effects accounted for 11 percent of the 5.4-Gini-point decline in average inequality between 2000 and 2010 (Azevedo, Inchauste, and Sanfelice 2013).

While some Sub-Saharan countries have seen their per capita GDP grow at more than 4.2 percent per year, sustaining this over a prolonged period of time is difficult, because of the many internal and external uncertainties African economies face. Indeed, structural volatility has characterized Africa's growth patterns historically (Guillaumont 2007; Hostland and Giugale 2013), and new risks are appearing on the horizon. In the immediate future, there are the rising concerns about the effects on Africa's growth of the withdrawal of liquidity, but many similar challenges, emanating from the changing performance of the world economy, lie ahead.
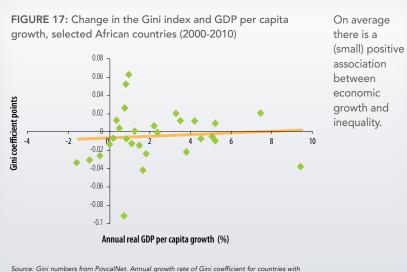
Internally, natural disasters, both old (droughts), but also new (floods), are occurring with increasing frequency, while the threat of conflict (both coming from within and spilling over from neighboring countries) continues, as demonstrated by the events over the last 18 months in the Central African Republic, Kenya, and Mali. Building resilience to macroeconomic volatility (both from domestic and external sources), will thus be equally important for sustaining economic growth and reaching the poverty targets, in addition to creating the conditions for accelerating it.

Finally, so far, it has been assumed that everyone along the income distribution would see their incomes grow at the same rate. This has not always been the experience, with people in the lower segments of the income distribution, who typically earn their living in agriculture and the rural economy, often growing at a slower pace than those in the upper segments of the income distribution, such as those in the cities. To be sure, only a slightly positive association has been observed between economic growth and changes in inequality in the available household surveys from Africa, with countries that are expanding experiencing increases and decreases in inequality in equal numbers (Figure 17). Yet it is often difficult to fully observe changes in inequality directly in the data, because mineral-rich countries tend to be underrepresented in the sample (nonresponse bias across countries), and because the very rich tend to be underrepresented in the surveys (nonresponse bias across households within countries) (Korinek, Mistiaen and Ravallion 2006). At the same time, Sub-Saharan Africa's low growth elasticity of poverty (estimated at -0.7 compared to -2.0 in the rest of the

developing world and mediated by higher initial inequality and the mineral resource intensity of the country's economies) highlights the importance of reducing inequality (or at least stemming its rise) and fostering more inclusive growth processes as an important additional instrument to tackle Africa's accelerating challenge of poverty reduction.

The rest of this section is organized as follows. Subsection B discusses Africa's longer-term growth prospects and the uncertainties surrounding it. Subsection C illustrates the importance and power

FIGURE 17: Change in the Gini index and GDP per capita growth, selected African countries (2000-2010)

On average there is a (small) positive association between economic growth and inequality.

Source: Gini numbers from PovcalNet. Annual growth rate of Gini coefficient for countries with end point in the 2000's decade. GDP per capita from WDI.

of reducing inequality and fostering more inclusive growth processes in accelerating Africa's poverty reduction. Subsection D concludes with a brief discussion of three opportunities to do so.

B. UNCERTAINTIES CHALLENGE PROSPECTS OF SUSTAINED HIGH GROWTH

Despite the recent global economic recession, most countries in Sub-Saharan Africa have continued to register relatively robust growth. This impressive performance naturally raises the question: If there are further adverse shocks to the global economy and the region, will economic growth still persist and what will be consequences for poverty reduction? The vulnerability to external events such as a commodity price shock was evident from the analysis in Section 1. In this subsection, an integrated macro-micro simulation framework for the global economy is used to stress test Africa's recent growth and poverty performance.[15]

The main global trends and Africa's role in the world economy to 2025 are captured in the baseline scenario by incorporating key drivers of economic growth, including demographic changes, technological catch-up, and capital accumulation. The baseline describes a steady global recovery from the recent economic recession in high-income countries and continued growth in developing countries. Per capita income in Sub-Saharan Africa is expected to grow annually at 3 percent and, by 2025, the percentage of people in the region living under the $1.25/day poverty threshold will fall to 31.1 percent (compared with 48.5 percent in 2010).

A set of hypothetical adverse shocks, both external and internal to the Africa region, are introduced to see how the baseline economic performance is disrupted. Two long-run shocks that originate outside of Africa are considered: (a) a prolonged recession in the high-income countries coupled with a collapse of

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15 This note is based on a recent study by Devarajan et al. (2013), where the details about the scenarios and results in the study can be found.
    In particular, the empirical analysis relies on the World Bank's LINKAGE global CGE model (van der Mensbrugghe 2011) and the Global Income Distribution Dynamics (GIDD) Bourguignon and Bussolo (2013) microsimulation framework. Eighteen individual Sub-Saharan African countries, along with the BRICS, the remaining developing countries, the European Union, the United States, the Organization of Petroleum Exporting Countries (OPEC), and the remaining high-income countries are included. Poverty and impact on the distribution of welfare among households and individuals are calculated from the GIDD, a global microsimulation model. This global macro-micro model combines a set of price and volume changes from the CGE model with expected changes in demographic structure to create a simulated distribution of income in 2025.

financial flows in and out of Sub-Saharan Africa, and (b) a prolonged recession in the BRICS, Brazil, Russia, India, China, and South Africa. One shock that originates in the region is also considered: namely, a drought in several countries. Except for the cessation of global financial flows (which is unprecedented), the external and internal shocks are of duration and magnitudes that are within the range of historical norms.

The first stress test is a prolonged recession in high-income countries. A prolonged recession could trigger renewed financial problems in high-income countries, which could lead to deleveraging globally, and a breakdown in international capital flows. For this scenario to take place, it is assumed that rapid financial development in emerging economies takes place, which improves the capacity of these to absorb their capital surpluses. This stress test corresponds by design to a worst-case scenario about global developments in order to illustrate the importance of capital flows to African countries. Without external financing, investment in several countries would drop significantly. As a result, the share of investment to GDP would fall in 2025 by 3 to 10 percentage points relative to the baseline for most Sub-Saharan African countries. Consequently, GDP volume in 2025 would be significantly lower for several countries in the region.

Even so, resource-rich countries like Nigeria or Zambia with substantial capital surplus would be forced to invest the excess capital domestically, and their investment and GDP would expand in this scenario by an additional 5 and 10 percentage points, respectively. That expansion would be a lot lower if there were significant absorptive issues. All told, regional GDP would be 1.3 percent lower than in the baseline by 2025, but dramatic drops of up to 20 percent are registered in countries such a Malawi and Mauritius, and around 10 percent in Madagascar, Mozambique, and Uganda. The implications for total consumption are in line with the changes in GDP, but slightly more pronounced. By 2025, regional total consumption would be almost 3 percentage points lower than in the baseline.

Africa has benefited from the economic rise of China, and together with Brazil and India, these countries account for around a third of the region's exports. A long-term slowdown in the growth of these countries would have negative implications for the region. A slowdown in the BRICS (represented by lower productivity growth in BRICS from 2013 onward) would negatively affect African countries through lower external demand. The global slowdown of demand for goods and services also implies lower increases in commodity and agrifood prices over time.[16] This scenario represents a persistent and significant shock, with the average per capita growth rate of BRICS over 2013–25 being about 1 percentage point slower than in the baseline. As a result, by the end of the simulation period, total volume of African exports to BRICS is about 13 percentage points lower than in the baseline. By 2025, the volume of the region's GDP is about 5.5 percentage points lower, while real household consumption is about 4.6 percentage points lower than in the baseline. That said, the adverse effects would be relatively small if the slowdown were of limited duration.

In Africa, droughts are recurrent events, with adverse effects on local communities and the ecosystem. In a region where the majority of people depend on farming or raising animals, droughts inevitably have very negative consequences. In fact, no region in Sub-Saharan Africa has been spared over the last three decades. In the stress test, we look at the implications of a widespread drought that would occur

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16 The model does not allow for a detailed analysis of the commodity market.

in two waves. The first wave would hit Cameroon, Cote d'Ivoire, Ethiopia, Ghana, Kenya, Nigeria, Senegal, Tanzania, and Uganda over 2013–15, and the second wave of drought would hit all the remaining countries in the region over 2016–18. In line with previous studies, drought is modeled as a temporary shock to productivity in agriculture. Consistent with similar historical shocks, a level of productivity shock is chosen that would reduce agricultural output initially by around 10 percent compared to the preshock level.[17] Subsequently, productivity recovers to its preshock level over the next two years.

Following the drop in agricultural output, prices of agricultural products and food increase much faster than the equivalent baseline numbers. For Ethiopia, Nigeria, or Zambia the initial shock results in an increase in agricultural and food prices by an additional 15 percent. Imports of food products increase significantly to replace domestic output. Households will bear the burden of higher food prices. Even though wages of unskilled workers rise, the increase in income is slower than that of food prices. Since food expenditures constitute a high share of household budgets, without government or international intervention, real consumption would decrease substantially. The initial loss in household consumption for Sub-Saharan Africa would amount to 2.3 percent in 2013. By 2025, total regional consumption would still be 1.2 percent lower than in the baseline. In several countries such as Nigeria where the share of food imports in consumption is relatively high, prices increase substantially while domestic income does not go up as much.

Although declining in frequency, conflict is a significant contributor to growth collapses or decelerations among African countries (Arbache, Go, and Page 2008). Nearly 20 countries in the region have experienced at least one civil war since 1960. In fragile and conflict-affected states, violence has huge direct social and economic costs, making it the main constraint to meeting the Millennium Development Goals (World Bank 2011). Conflict causes loss of life, destruction of capital, and collapse of private investment. Often, domestic production shifts away from manufacturing and services and into subsistence agriculture. Although we do not assess a conflict scenario, results from Devarajan et al. (2013) indicate that the output loss is substantial, especially in the conflict years, and the economic effects linger over time.[18]

The poverty and welfare implications of these scenarios are examined by looking at growth incidence curves or the change in income across households at different points in the income distribution. More specifically, for all the scenarios, the postshock percent change in per capita income across the regional income distribution for Sub-Saharan Africa is compared and contrasted with the preshock income distribution in 2010. The postshock income distribution for 2015 and 2025 is examined—in 2015 relative to 2010 and in 2025 relative to 2010. The growth incidence curve associated with each scenario will shift up and down relative to the base case, depending on the severity of the shocks, while its shape will change depending on the relative impact on households across income percentiles.

Comparing across the four scenarios, households in the 6th decile or below would generally not be worse off with a prolonged high-income country recession combined with financial flow restrictions to Sub-Saharan Africa. This seems to confirm that Africa's growth and poverty performance going forward, as in the

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17 This corresponds to reducing agricultural productivity in the first year by 15 percent.
18 The study models the effect of hypothetical civil conflicts in three large countries in the region.

recent postrecession period, is generally more robust and relatively "less reliant" on the state of high-income countries or the world economy. That said, any drop in financial capital flows will, however, hit richer households severely. A long-lasting slowdown in BRICS, however, has significant negative implications for both rich and poor households, with the incidence curve shifting downward almost in parallel to the baseline. A general slowdown in demand is affecting labor and capital owners in a similar fashion.

The opposite is true for droughts, during which the poor are disproportionally hard hit. Despite modeling them as shocks that do not deviate significantly from historical magnitudes, the drought scenarios will damage household welfare the most in the medium term, confirming that internal shocks like broad food price shocks (and conflicts) still pose the greatest risks to Africa's future, as in the past (Arbache, Go, and Page 2008; Raddatz 2007). The corresponding incidence curve (in 2015 relative to 2010) shifts downward significantly across the entire income spectrum. The good news is that welfare will generally recover by 2025. The key assumption, of course, is that the internal shock—drought—is of short duration and its magnitude is in the range of historical norms for limited shocks. External shocks, however, are executed throughout the simulation period, so their impact culminates in 2025. These have lasting and significant negative effects on poverty.

Figure 18 normalizes the baseline scenario as the benchmark case by setting it at the zero horizontal line and shows the percentage point differences between the 2015–2010 and the 2025–2010 growth incidence curves of the three alternative scenarios relative to the baseline. There are modest differences between the reference case and the cases pertaining to a prolonged recession in high-income countries with a collapse of capital flows or a slowdown in the BRICS in the medium-term horizon (by 2015). In the drought scenario, by 2025, there will still be lingering effects of -2.5 percentage points with respect to the baseline for the poorest 20 percent in Sub-Saharan Africa.

The overall impact of each scenario on Africa's poverty rate will depend on each

African countries are vulnerable to persistently lower growth in BRICS. In the drought scenario, by 2025, there will still be lingering effects of -2.5 percentage points of consumption with respect to the baseline for the poorest 20 percent in Sub-Saharan Africa.

FIGURE 18: Growth incidence curves: Differentials between alternative scenarios and the baseline

Source: Based on Devarajan et al. (2013).

household's final position with respect to the poverty line. Again and by design, the most important differences between the baseline and the internal shock scenario occur in the medium term. The drought scenario inflicts greater damage in terms of forgone poverty reduction—the poverty headcount for $1.25 a day is greater than the baseline by 0.9 percentage points.

The simulation results of the alternative scenarios suggest that African economies are fairly impervious to a prolonged recession in high-income countries, unless it is accompanied by a disruption in global capital flows. They are much more vulnerable to persistently lower growth rates in the BRICS, but a slowdown of a limited duration would not substantially impact the long-term growth and poverty reduction prospects of the region. Further, the African countries are very sensitive to internal shocks, such as drought, even if it follows historical patterns. Because of the economic dominance of the agricultural sector and the share of food in household budgets, countries will need to increase the resilience of agriculture and protect it from unfavorable climate change impacts, such as drought. As in the past, civil conflicts and violence will pose by far the greatest threat to Africa's performance.

C. REDUCING INEQUALITY PROVIDES OPPORTUNITIES

The scenarios in the preceding subsection considered the role of uncertainty. But what about inequality? The pace of poverty reduction depends not only on the rate of economic expansion but also, critically, on how the gains from growth are distributed. The latter can, ex post, be observed in changing rates of inequality, which will in turn affect the future poverty-reducing impacts of growth, since the growth elasticity of poverty reduction has been found to be affected by (initial) inequality itself. Let's begin by illustrating the importance of the initial level of inequality in determining the poverty-reducing powers of growth.

Figure 19 plots the evolution of the incidence of $1.25 poverty (vertical axis) for changes in inequality (horizontal axis), while holding per capita income growth constant.[19] Three country cases are considered: Zambia, Uganda, and Nigeria. Zambia and Nigeria are mineral-rich countries[20] with similarly high levels of poverty at the outset, but different levels of initial inequality—Gini coefficients estimated at 57.4 and 44.1, respectively. Inequality in Uganda in 2010 (Gini estimated at 43.1 percent) was similar to that in Nigeria,[21] although its headcount was substantially lower. Annual 4.2 and 3.6 percent GDP per capita growth rate are applied over 20 years. The second scenario corresponds to the historical growth rate in Nigeria (3.6%), and is 0.1 and 1 percentage point higher than the historical growth rate in Uganda (3.5%) and Zambia (2.6%).

With annual distribution-neutral growth of 4.2 percent, or a total expansion by 128 percent over 20 years, the $1.25 poverty headcount declines from 74.4 percent to 42 percent in Zambia, a reduction by 43.5 percent, although from 63.1 to 24 percent in Nigeria and from 33.9 to 8 percent in Uganda, a decline by 61 and 76 percent, respectively. This is a further illustration of the pernicious effects of high initial inequality (as in Zambia) on the poverty-reducing effects of growth. With the average Gini coefficient

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19 Simulations based on Ferreira and Leite (2003).

20   Although traditionally a mineral-poor country, oil was recently discovered in Uganda, yielding an expected fiscal revenue of 3.4 percent of GDP in 2010 (Devarajan and Gugiale 2013).

21   Simulations for Nigeria are based on the 2003 household surveys, the latest one for which harmonized household expenditure data were available in SHIP. Nonetheless, the simulations were run for the same length of time (20 years, from 2003 to 2023, and from 2010 to 2030 for Zambia and Uganda).

across Sub-Saharan African countries estimated[22] at 45.1 and 26 countries having a Gini of more than 40, inequality in Africa is already quite high. In Latin America, widely known for its highly unequal income distributions, the average Gini is 50.1. Taking into account that Latin America's Gini coefficients are largely based on income distributions which are typically more unequal than distributions of consumption and which form the basis for Africa's Ginis, inequality in Africa appears not so different from that in Latin America.

Multivariate analysis, linking changes in poverty to growth conditioned on initial inequality confirms these findings (Christiaensen, Chuhan-Pole, Sanoh 2013). Africa's high inequality substantially reduces the poverty-reducing effects of its growth. At a deeper analytical level, it reflects the unequal distribution of access to private (human and physical) assets and public goods (infrastructure), which makes it harder for poor people to take up the opportunities generated by aggregate economic growth and raise their incomes by contributing to economic expansion directly. Credit constraints, usually most binding among the poor, further limit their ability to exploit the opportunities to invest, often making poverty self-perpetuating.

The strong erosive effect of high initial inequality on the poverty-reducing powers of growth highlights the need for more inclusive growth processes and, where possible, even redistribution through safety nets and transfers, to accelerate Africa's poverty reduction in the future. Note further that Zambia's poverty reduction to 42 percent, obtained with 20 years of 4.2 percent inequality-neutral income growth, could also be achieved with 3.6 percent growth instead and a reduction in inequality by only 10 percent (Figure 19).[23] This reduction in annual growth needed to reach the same poverty target, by 0.6 percentage points, is significant.[24] Reductions in inequality by 10 percent (corresponding to almost 6 Gini points in the case of Zambia) have been frequently observed over the last decade in Latin America (Ferreira et al. 2013).[25]

Similarly, when also reducing its Gini by 10 percent (to 39.7), Nigeria could attain the same poverty headcount ratio with 3.6 percent annual growth instead of 4.2 percent. In Uganda, a reduction in its Gini by a mere 5 percent would already suffice, combined with 3.6 percent annual growth (instead of 4.2 percent). It would require Nigeria and Uganda to sustain their historical growth rate over the last decade for 20 years, no small feat in itself, instead of accelerating it by 0.6 (or 0.7) percentage points. Moreover, accounting for income gains for those staying under the poverty line, such as the poverty gap and the poverty gap squared, suggests that doubling the economies (as opposed to expanding them by 128 percent) combined with a decline in the Gini of 5 percent (as opposed to 10 percent) would already more than suffice to achieve the poverty target obtained under inequality-neutral growth of 4.2 percent.

The constant inequality scenarios discussed earlier assume that the sectors where the poor reside and earn most of their living—agriculture and the rural economy—expand at the same rate as the rest of the economy. Even recent (2005–10) history suggests otherwise, with agriculture (3.2 percent) typically

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22 This is based on the latest available surveys in Povcalnet.

23 The inequality change simulated here concerns Lorenz convex transformations.

24 It would still require Zambia to increase its GDP per capita growth by 1 percentage point from its average over the last decade of 2.6 percent.

25 For example, Argentina, Brazil, Ecuador, Mexico, and Peru all reduced their Gini coefficients by 5 points or more over the last decade. In Brazil, the Gini coefficient declined from 60.1 in 2001 to 54.7 in 2009, while Mexico managed to reduce its Gini coefficient from 54 in 2000 to 47.7 in 2010.

growing at a slower pace than industry (4.2 percent) and services (4.9 percent). For example, if agriculture in Zambia were to continue at its historical growth rate of 2.1 percent, and the rest of the economy at 5.3 percent (or 4.2 percent income growth per capita in total), inequality would in effect increase (Figure 20). The Gini attains 64.3 and the $1.25 poverty headcount declines to only 53 percent.

FIGURE 19: Poverty-inequality-growth trade-offs in different settings, 20 years of growth

Poverty in Zambia
Headcount 2010: 74.4%

Poverty in Uganda
Headcount 2010: 33.9%

Poverty in Nigeria
Headcount 2003: 63.07%

Inequality change (%)
Gini 2010: 57.4

Inequality change (%)
Gini 2010: 43.1

Inequality change (%)
Gini 2003: 44.1

Three country cases are considered: Zambia, Uganda, and Nigeria. Zambia and Nigeria are both mineral-rich countries with similarly high levels of poverty at the outset, but different levels of initial inequality. The $1.25 poverty headcount declines to 42% in Zambia, to 24% in Nigeria, and to 8% percent in Uganda.

Source: Staff estimates using household surveys from "Survey-based Harmonized Indicator Program (SHIP)" for Zambia (2006 and 2010) and Uganda (2005 and 2010), and "The International Income Distribution Database (I2D2)" for Nigeria (2003).

Note: The blue dots represent annual (accumulated) income per capita growth rates of 3.6 percent (103), 3.6 percent (103), and 3.6 percent (103) for Zambia, Uganda, and Nigeria, respectively (these growth rates correspond to the respective average GDP per capita growth rates of Uganda and Nigeria between 2000 to 2010 and 1 percentage point above Zambia's GDP per capita growth rates during that period).

The red dots represent annual income per capita growth rates of 4.2 percent for all countries, associated with an accumulated rate of 128.

Alternatively, were the country to attain the Comprehensive Africa Agriculture Development Programme (CAADP) goal of 6 percent growth in agricultural GDP (corresponding to 3.3 percent per capita), the Gini coefficient would only increase to 60.6 and poverty would decline to 47 percent, albeit still above the 42 percent poverty headcount attained with inequality-neutral growth. The upward pressure on inequality is real, (although not inevitable), and with rising inequality, even more growth would be needed to achieve the same poverty target. Or, less poverty reduction would be achieved.
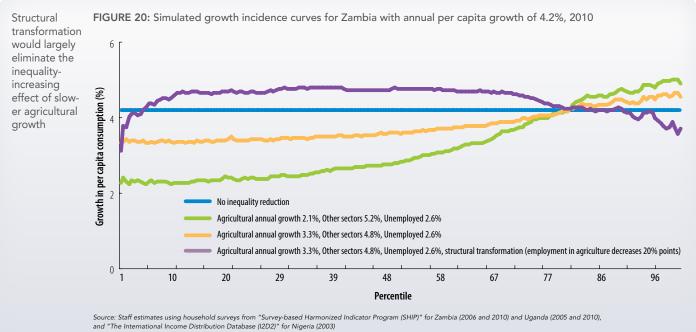
A question that arises is whether rising inequality is inevitable when accelerating growth. It has been argued for a long time that growth and inequality follow an inverted U-pattern, with inequality rising in the early stages of development and declining thereafter. Using more recent data and more robust estimation techniques, many empirical studies have, however, failed to detect such a pattern. Even for China, where growth has been very strong and inequality has also risen starkly, Ravallion (2011) warns against the presumption of a growth-inequality trade-off.[26]

One important force that could countervail the possible inequality-increasing effects of differencial growth rates across sectors is the migration of people from lower to higher productivity jobs (the

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26 Three observations lead Ravallion (2011) to the view that the existence of a trade-off between growth and inequality is far from obvious in China. First, China's more rapid periods of growth did not come with more rapid increases in inequality, while periods of falling inequality (1981–85 and 1995–98) had the highest average growth in average household income. Second, sub-periods of high growth in the primary sector did not come with lower growth elsewhere. Third, provinces with more rapid rural income growth did not see a steeper rise in inequality.

occupational or structural transformation). A simulated 20 percentage point reduction in employment in agriculture by 2030—consistent with the historical rate of outflow of the agricultural workforce from that sector—in addition to using the historical agricultural growth rate, while keeping aggregate growth at 4.2 percent, would largely eliminate the inequality-increasing effect of slower agricultural growth (Figure 20). There are incipient signs that such transformation has now also started in Africa.[27] The simulations highlight two key forces of inclusive growth: (1) the sector of growth (and the role of agriculture for poverty reduction), and (2) the rate of the structural transformation.

Structural transformation would largely eliminate the inequality-increasing effect of slower agricultural growth

FIGURE 20: Simulated growth incidence curves for Zambia with annual per capita growth of 4.2%, 2010

Source: Staff estimates using household surveys from "Survey-based Harmonized Indicator Program (SHIP)" for Zambia (2006 and 2010) and Uganda (2005 and 2010), and "The International Income Distribution Database (I2D2)" for Nigeria (2003)

D. FASTER POVERTY REDUCTION THROUGH INCLUSIVE GROWTH AND SAFETY NETS

Fostering pro-poor growth in Africa thus requires a combination of more, and more resilient, growth; a larger direct contribution of the poor to that growth (that is, a more inclusive growth pattern); success in reducing historical inequalities; and possibly also redistribution through social safety nets and transfers. While the ideal combination of these core ingredients varies by country, Africa's low growth elasticity of poverty—and the simulations above—suggest that much will need to be gained from reducing inequality, in opportunities and outcomes. This requires, especially, attention to the sectoral and geographic patterns of growth.

Productivity increases in sectors that make most use of the assets of the poor (labor and land), such as agriculture and informal household enterprises, have proven to be highly poverty reducing (Ravallion and Chen 2007), as are processes that enable occupational shifts from lower- to higher-productivity jobs

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27 McMillan (2013) estimates that the occupational shift out agriculture accounted for 40 percent of growth in 16 Sub-Sharan African countries during the 2000s. Productivity growth within agriculture and better governance were positively associated with such an occupational move, though natural resources dependence (or abundance) was not.

(McMillan 2013). The latter appears especially effective if these (self-employment) jobs are generated nearby, that is, in the rural economy (either on the farm, in other villages or in rural/secondary towns) (Christiaensen, De Weerdt, and Todo 2013). Uganda's 2005–09 experience is illustrative of these insights, which find confirmation in cross-country econometric analyses (Loayza and Raddatz 2010) as well as in model-based general equilibrium evidence that takes cross-border trade into account (Ivanic and Martin 2013).

During 2005–09, Uganda experienced robust income growth—consumption per adult equivalent grew by 5.1 percent per year—and substantial poverty reduction—the poverty headcount declined from 25 to 20 percent.[28] Inequality also increased, with the Gini rising from 42 to 48. Further decomposition (using a nationally representative panel of individuals) shows that while only three-quarters of the population was rural (in 2009), it accounted for all of the poverty reduction but only half of the consumption growth observed in the sample (Figure 21). The urban population, on the other hand, contributed little to poverty reduction (at least not directly),[29] despite generating half of Uganda's welfare expansion and making up a quarter of the population. Quite strikingly, poverty among those in Kampala increased slightly, even though Kampala accounted for 42 percent of overall growth.

Moreover, about half of the poor who exited poverty did so while continuing to spend most of their time in agriculture, and another 11 percent by complementing their agricultural income with rural nonfarm income (Table 1). One in four exited poverty by diversifying into the rural nonfarm economy (occupational transformation). In contrast, more than 60 percent of consumption growth occurred among nonagricultural households, approximately evenly split between rural and city households.

TABLE 1: Nonagricultural activities account for the bulk of growth, and agricultural income growth accounts for the majority of poverty reduction

Household classification by occupation and location[a]	National population share (%)	Share in national poverty reduction (%)	Shares in national consumption growth (%)
Agricultural-agricultural	40.2	52.4	11.5
Agricultural-rural nonagricultural	9.4	24.6	6.6
Agricultural-diversification	4.5	11.3	3.1
Nonagricultural rural-nonagricultural rural	7.7	1.3	34.0
Nonagricultural city-nonagricultural city	7.9	3.4	27.9

Source: Kaminski and Christiaensen (2013)
Note: a. Shares do not add up to 100 percent because not all dynamic categories have been included, only the largest ones.
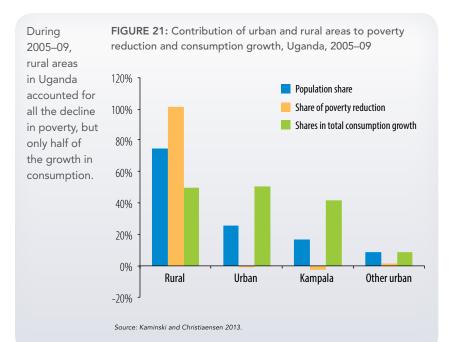
28 These numbers are based on the national poverty line. The $1.25 headcount declined from 51.5 percent to 38 percent.
29 Intersectoral dependencies are abstracted from here.

The experience from Uganda highlights that growth and poverty reduction do not necessarily coincide, and that especially the sector and location of growth matters for poverty reduction. Even though agriculture made up only 14 to 16 percent of GDP during this period, it continued to play a key role in poverty reduction (together with rural nonfarm activities), while growth was driven by the other sectors.[30]

Econometric and model-based evidence from other countries (allowing for international trade) confirms that agriculture is more poverty reducing.[31] Diao et al. (2010) further draw attention to the fact that, within agriculture, it is especially productivity growth in staple crops (compared to export crops) that is more poverty reducing. But there is also substantial heterogeneity in the poverty-reducing effects of growth in the nonagricultural subsectors. In particular, based on country-specific computable general equilibrium models for four countries (Malawi, Mozambique, Tanzania, and Zambia),[32] Dorosh and Thurlow (2013) report that among the nonagricultural subsectors the growth elasticity of poverty reduction is typically higher in trade and transport and manufacturing than in mining and utilities, construction, and finance and business (Figure 22). These subsectors often also dominate informal (rural and urban) nonfarm employment.

And, there are substantial differences across countries. For example, the growth elasticity of poverty reduction of manufacturing in Malawi is high compared with Mozambique. Manufacturing in Malawi is concentrated in food processing, particular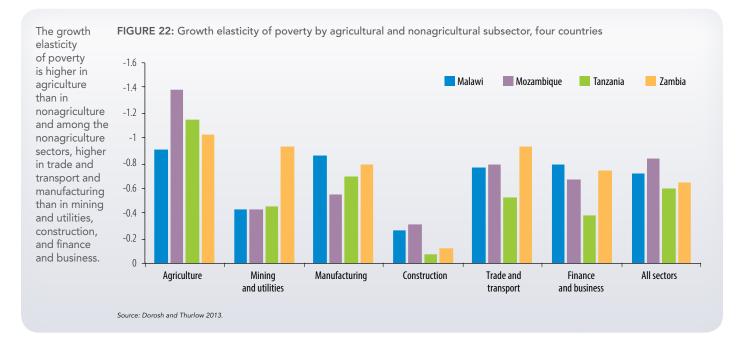ly in grain milling, generating stronger linkages to poor households. In Mozambique, capital-intensive, enclave like metals beneficiation (aluminum) is the country's major manufacturing export sector, with fewer linkages to other domestic industries or households. Increasing the growth of this sector in Mozambique, therefore, has a much smaller effect on poverty than in Malawi.

But even though productivity growth in agriculture, followed by productivity growth in trade, transport, and manufacturing prove effective at reducing poverty, is this also where Africa's future jobs are likely to be? Given much higher productivity in formal (wage) employment, it is often argued that the focus should be

During 2005–09, rural areas in Uganda accounted for all the decline in poverty, but only half of the growth in consumption.

FIGURE 21: Contribution of urban and rural areas to poverty reduction and consumption growth, Uganda, 2005–09

Source: Kaminski and Christiaensen 2013.

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30 To be sure, these statistics abstract from any sectoral interdependencies, whereby growth in the nonagricultural sector would be driving growth in the agricultural sector and vice versa. These may have been particularly important in the central region, with demand for agricultural products driven by rising incomes in Kampala.

31 Using cross-country evidence from 80 countries during 1980–2002, Christiaensen, Demery, and Kuhl (2011) find that growth in agriculture is up to 3.2 times better at reducing $1-a-day headcount poverty in low-income and resource-rich countries than an equivalent amount of GDP expansion outside agriculture (including in Sub-Saharan Africa), at least when societies are not fundamentally unequal. Updating the dataset to 2010 (using PovCAL, http://iresearch.worldbank.org/PovcalNet/index.htm) and focusing on $1.25 poverty headcount, Headey (2013) confirms that growth in agriculture is substantially more poverty reducing than growth outside agriculture. Using computative general equilibrium models in 30 countries, instead, Ivanic and Martin (2013) also find a substantially higher growth in poverty to (aggregate) GDP in agriculture than in the industrial or services sectors (this is after allowing for food to be internationally tradable, which arguably reduces some of the linkage effects of agriculture on the rest of the economy).

32 The simulations compare the poverty-reducing effects of (sub)sectoral increases in TFP, which each yield a similar 2.5 percent increase in GDP per capita at the end of the period compared with the baseline. The growth elasticities of poverty will depend on the linkages of the sector with the rest of the economy, the tradability of the sector's goods, and the income and consumption patterns of the poor.

The growth elasticity of poverty is higher in agriculture than in nonagriculture and among the nonagriculture sectors, higher in trade and transport and manufacturing than in mining and utilities, construction, and finance and business.

FIGURE 22: Growth elasticity of poverty by agricultural and nonagricultural subsector, four countries

Source: Dorosh and Thurlow 2013.

on generating employment activities in formal enterprises (McMillan 2013). In their latest "Youth Employment in Sub-Saharan Africa" report, Filmer et al. (2013) emphasize that "informal will remain normal" for quite some time to come and that the focus should be on increasing productivity both in agricultural and informal household enterprises (such as trading and transport). This is where they project most of the new jobs to be, and where in the rural areas and towns they are also more accessible for the poor as a first entry point for diversification out of agriculture (as in Uganda).

Finally, in addition to improvements in agricultural productivity and transitioning into nonagricultural jobs in both rural and urban areas, social safety nets can also be effective in redistributing the gains from growth. For example, Mexico's often mentioned cash transfer program, Oportunidades, covered nearly a quarter of the population, providing a 20 percent increment over pretransfer income on average, while only costing 0.5 percent of GNP in 2006 (Fiszbein and Schady 2009). But social safety nets vary substantially in coverage and generosity (Box 3), as do countries' capacity to redistribute. One way to gauge the latter is to calculate the marginal tax rate necessary to eliminate $1.25-a-day poverty when only taxing those above the U.S. poverty rate ($13 a day) (Ravallion 2010).[33] With the exception of Botswana, Cape Verde, Namibia, and South Africa, the tax rate would be excessively high in most countries. Clearly, redistribution alone will not suffice to eliminate poverty, underscoring the importance of economic growth.

Yet this conclusion comes with two important caveats. First, there are mounting indications that social safety nets and transfers can contribute to growth itself, reducing the relative cost of social safety nets and transfers over time.[34] While low-income households use transfers to finance consumption, it also helps them overcome credit constraints and invest. For example, poor rural Mexican households invested part of their cash transfers from the Oportunidades program in productive assets, increasing agricultural

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33 In this view, households are considered "rich" only when they are not poor according to western standards.

34 Alderman and Yemtsov (2013) review the latest evidence.

Until recently, social protection programs have been implemented mainly on an ad-hoc basis in Africa. Following the global crisis and repeated droughts, however, a number of countries have begun to rationalize public spending and started to coordinate their separate safety net programs into a national system including to provide more adequate and targeted support to the poorest. The most common safety net interventions are school feeding programs, public works programs, emergency and categorical transfer programs, and general subsidies, and most are set up as emergency relief rather than more sustained and development-oriented safety nets (Figure 23). These shock response mechanisms tend to be weak, inflexible, and unpredictable.
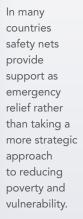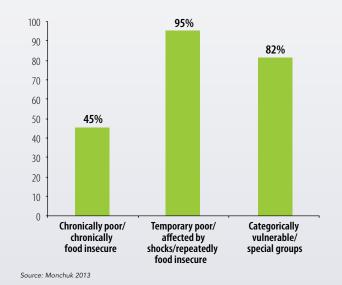
In many
countries
safety nets
provide
support as
emergency
relief rather
than taking a
more strategic
approach
to reducing
poverty and
vulnerability.

FIGURE 23: Focus of safety nets in Africa (% of countries)

Source: Monchuk 2013

Nontheless, safety net coverage of the poor and vulnerable remains low. In Benin, for example, all safety net programs combined cover only 5 to 6 percent of the poor. In Kenya, cash transfers reached only about 9 percent of the poor in 2010, but the government is planning to expand coverage in 2013-14 so that 17 percent of the poor will be reached. Kenya's Cash Transfer for Orphans and Vulnerable Children Programme (CT-OVC), Rwanda's Vision 2020 Umurenge Programme (VUP), and Tanzania's Productive Safety Net are also being expanded. Given limited resources in the face of extensive needs, targeting will be key. This will require improved data collection and monitoring systems and a much better understanding of what works and under

what conditions. Fortunately, rigorous impact evaluations of larger safety net programs, such as those in Ethiopia, Kenya, and Tanzania, are also increasingly becoming part of the design.

Source: Based on Monchuk 2013.

income by almost 10 percent after 18 months of benefits (Gertler, Martinez, and Rubio-Codina 2012). Social marketing and conditions for eligibility can further be used to enhance such behavior. Transfers (or other forms of safety nets) can also act as insurance, shifting ex-ante portfolio choice from low risk-low return to more high risk-high return activities, thereby increasing allocative efficiency. Ex post, they help households cope with covariate shocks, including by preventing the sale of productive assets. When provided under the form of public works programs, they also help build community assets (Subbarao et al. 2013), the payoffs being especially strong in the case of localized "poverty traps" (Barrientos 2012). Finally, transfers have often been used to help overcome resistance against reforms. For example, Indonesia reduced fuel subsidies by $10 billion in 2005 without social unrest, partly through the introduction of a targeted unconditional cash transfer program that cost about a quarter of the savings in fuel subsidies.

Second, there is also much more scope in mineral-rich countries. In effect, even if only 10 percent of the resource wealth were to be universally and uniformly distributed across the population, poverty

could be eliminated in Equatorial Guinea and Gabon, and substantially reduced in many other countries (Devarajan and Giugale 2013). While 10 percent seems large, especially in light of the extensive need for expanding public goods provision, private transfers have been quite common in many mineral-rich countries, either under the form of fuel subsidies (Nigeria) or under the form of fertilizer subsidies (Zambia). Given that Zambia's resource rents averaged 20 to 25 percent of GDP over the last five years, a 10 percent direct uniform and universal distribution would also be similar in magnitude to the 2 percent of its national GDP the government of Zambia has been spending in supporting maize production through maize purchases at above-market price and subsidizing inputs. With the larger farmers receiving the bulk of the subsidized fertilizer and producing the bulk of the marketed surplus, these current fertilizer based transfers are in effect also regressive (Jayne et al. 2011). A uniform and universal direct dividend program could help overcome resistance against reform. In addition, by creating a direct vested interest of the population in knowing both the amount and the public spending patterns of the country's resources extracted, institutionalizing such a transfer (as in Alaska) may also improve the governance of mineral resources.

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