

BOX 2.1 Linkages between China and Sub-Saharan Africa

China's engagement with Sub-Saharan Africa has expanded greatly over the past decade, to cover all aspects of development. The engagement has spurred growth in the region. Stronger domestic policies will help countries in Sub-Saharan Africa increase the gains from this growing partnership.

China's economic ties with Sub-Saharan Africa (SSA) have expanded greatly over the past decade. Trade increased from negligible levels in 2000 to more than \$170 billion in 2013. Chinese direct investment in SSA has grown more than six-fold. China's official development assistance to SSA expanded from \$0.5 billion in 2000 to \$3.2 billion in 2013.

The relationship is a complex one, involving multiple and diverse state actors in China, often (but not always) coordinating with state-owned and private corporations in a range of sectors across countries in SSA (Bräutigam 2009; Fijalkowski 2011). Although commodities and associated infrastructure projects have tended to dominate the relationship, Chinese investment in other sectors is also increasing, notably in manufacturing. In recent years, the Chinese government has increasingly provided assistance for social development projects, and has engaged in peacekeeping and security operations (Hanauer and Morris 2014; Fijalkowska 2011).

This box examines China's involvement in SSA and its impact on the region. The focus is on the following four questions:

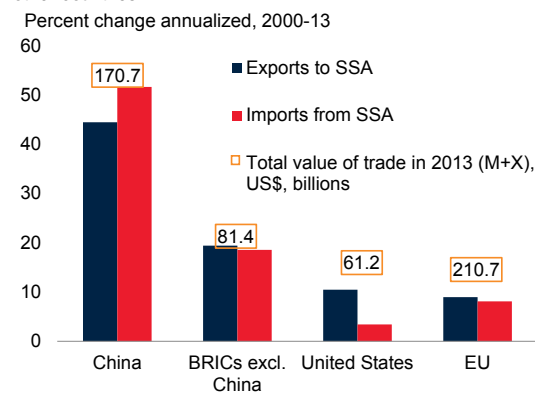
- What is the nature of China's involvement in SSA?
- What has been the impact on growth in SSA?
- What does the slowdown in China mean for the region?
- How can the region increase the gains from its growing partnership with China?

What is the nature of China's involvement in SSA?

China has become a prominent trade and financial partner for SSA. Trade with China is growing much faster than that with the United States and the European Union (Figure B2.1.1). China surpassed the United States to become the region's largest trading

FIGURE B2.1.1 Growth in Sub-Saharan Africa's trade flows, by partner, 2000–13

The region's trade with China has grown at a faster pace than with other countries.



Source: UN Comtrade mirror data.

partner in 2009; in 2013, trade flows with China accounted for 22 percent of the region's total trade with the rest of the world. Official data on Chinese foreign investment and development financing are sparse, but flows to SSA appear to have grown substantially.

Trade

Sub-Saharan Africa's trade with China is dominated by commodities. Oil, gas, and metals, sourced from a few countries, account for the bulk of SSA's exports to China (Figure B2.1.2), although the region's exports to the United States, the European Union, and major emerging market economies are even more concentrated in commodities (Figure B2.1.3). In contrast, the region's imports from China are diverse. About one-third comprise capital goods, including vehicles, generators, telecommunications equipment, and factory machinery. Consumer and manufacturing goods account for the remainder (Figure B2.1.2) and are about three times as large as imports from the United States and the European Union.

Investment

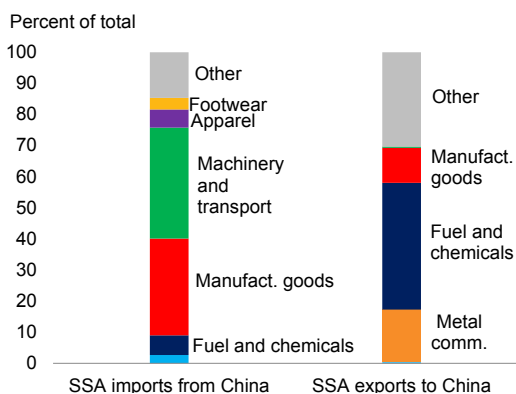
China is the largest developing country foreign investor in Africa (UNCTAD 2013). The relationship started in the early 1980s, as part of concerted diplomatic efforts promoting Chinese economic cooperation with Africa.

The author of this box is Tehmina S. Khan with contributions from Jiayi Zhang and Raju Huidrom.

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FIGURE B2.1.2 Sub-Saharan Africa's trade flows with China, 2013

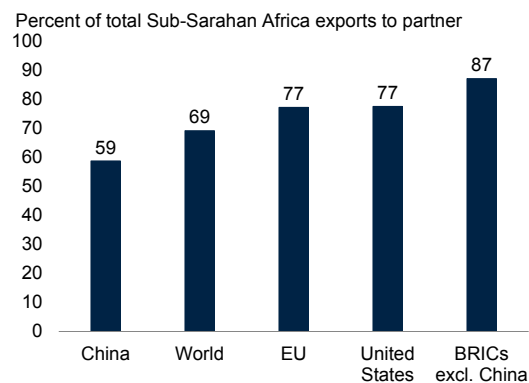
Sub-Saharan Africa exports to China are dominated by commodities.



Source: UN Comtrade mirror data.

FIGURE B2.1.3 Sub-Saharan Africa's commodity exports to major trading partners, 2013

... but commodities are an even larger share of exports to other major trading partners.



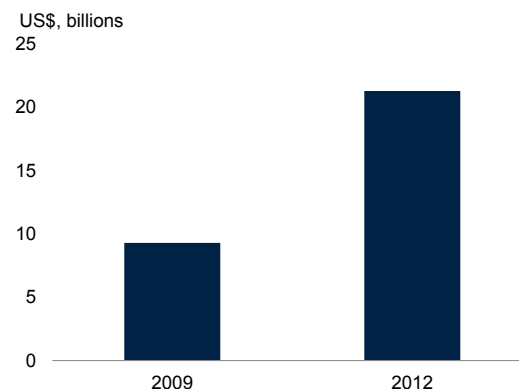
Source: UN Comtrade.

Note: Commodities comprise food and beverages; inedible crude materials; mineral fuels, lubricants, and other related materials; animal and vegetable fats; and chemicals and related products

Initial investments were small, amounting to \$51.9 million for 102 projects (about \$500,000 per project) between 1979 and 1990, with Chinese businesses relying heavily on government-sponsored assistance projects to gain a foothold in local African markets (Government of China 2013; Chun 2013). The distinction between foreign direct investment (FDI) and official assistance may at times be ambiguous. For example, in-

FIGURE B2.1.4 Cumulative Chinese foreign direct investment in Sub-Saharan Africa

The stock of Chinese FDI to Sub-Saharan Africa has doubled since 2009.



Source: Government of China 2013.

vestments by Chinese state-owned enterprises can be included in definitions of official flows of development assistance, if they receive subsidized state financing such as export credits (Hanauer and Morris 2014).

In any event, private investment flows are rising fast (Gu 2009) and, to the extent they are channeled via tax shelters, are likely to be underreported (Sun 2014). The officially reported stock of Chinese FDI in Africa was estimated at \$21 billion in 2012, a doubling since 2009 (Figure B2.1.4).¹ Reported flows are similar in magnitude to flows from the United States (figure B2.1.5), with the largest share directed toward the resource sector, notably in Angola, Chad, Niger, Nigeria, Sudan, and Zambia.²

Chinese investment in other sectors is substantial, especially in manufacturing (Figure B2.1.6). This is seen in the gradual development of manufacturing clusters in Ethiopia (glass, fur, footwear, and automobiles), Mali (sugar refineries), and Uganda (textiles and steel pipe manufacturing). Although partly driven by growing business opportunities in Africa, the shift toward

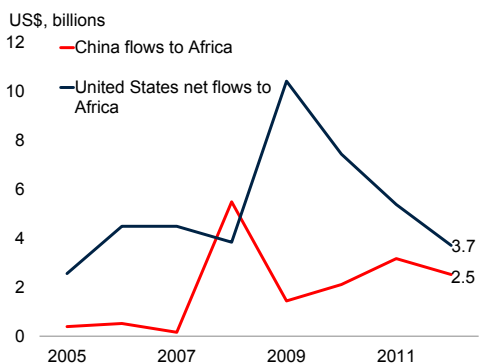
¹FDI data for China are available only for Africa as a whole rather than SSA specifically. According to the Chinese Ministry of Commerce, by the end of 2009, 88 percent of the FDI stock in Africa was located in SSA (cited from GAO Report 2013).

²Chinese Ministry of Commerce statistics from <http://www.chinaafricarealstory.com/p/chinese-fdi.html>.

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FIGURE B2.1.5 Chinese and U.S. foreign direct investment in Africa

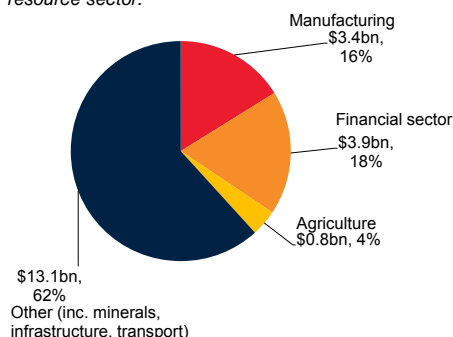
Chinese and US FDI flows to Africa are broadly comparable.



Sources: Ministry of Commerce, China; OECD Statistics on FDI.

FIGURE B2.1.6 Chinese foreign direct investment in Africa, by sector, 2012

The largest share of Chinese FDI to Africa has been directed to the resource sector.



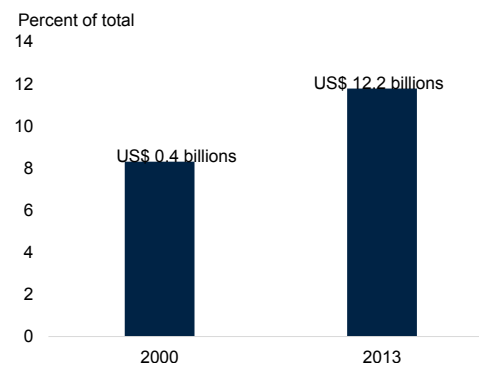
Source: Government of China 2013.

manufacturing is also indicative of Chinese firms' efforts to develop global value chains as domestic labor costs increase relative to lower-cost Africa (Hanauer and Morris 2014). African firms in turn have gained growing access to Chinese markets; since 2012, China has given some 30 countries in SSA zero-tariff treatment (covering about 60 percent of their exports) and is importing a growing share of manufactures from the region (Figure B2.1.7).³

³Government of China (2013). Growing market access is also reflected in rising SSA manufacturing exports to China. According to Comtrade data, these comprised 11 percent of total exports to China in 2013 compared with 7 percent in 2000.

FIGURE B2.1.7 SSA manufacturing exports to China

Exports to China have grown rapidly.



Source: UN Comtrade.

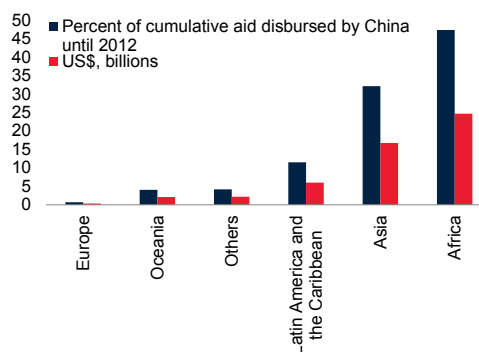
Development finance

Africa is the largest recipient of Chinese development financing and its share is increasing. Africa received nearly half of the cumulative \$54 billion provided by China in global foreign aid through 2012 (Figure B2.1.8), significantly more than any other region (Government of China 2011, 2014).

Chinese official development assistance has been, by and large, complementary to aid from Organisation for Economic Co-operation and Development (OECD) countries. Chinese and OECD official development as-

FIGURE B2.1.8 Distribution of aid and development financing flows from China

Africa is one of the largest recipients of Chinese aid.

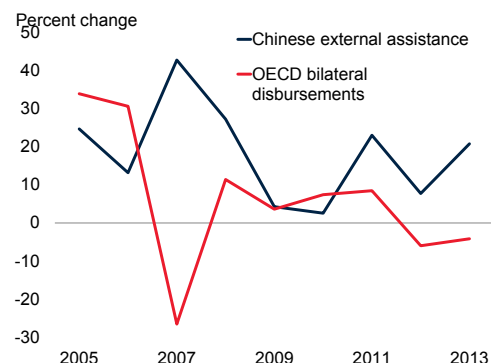


Source: Government of China 2011, 2014.

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FIGURE B2.1.9 Chinese development assistance and bilateral aid from OECD countries to Sub-Saharan Africa

Chinese assistance has grown at a faster pace than bilateral aid from the OECD in recent years...



Sources: OECD; Chinese Statistical Yearbook; MOFCOM. Cited from <http://www.chinaafricarealstory.com/p/chinese-aid.html>.
Note: OECD = Organisation for Economic Co-operation and Development.

sistance differ substantially in scale, nature, and degree of concessionality (Bräutigam 2011b; Strange et al. 2013).⁴ Although Chinese assistance increased rapidly as OECD disbursements declined (Figure B2.1.9), Chinese aid remains well below the OECD's, amounting to \$3.2 billion in 2013 compared with the \$26 billion disbursed by OECD countries in the same year (Figure B2.1.10). Chinese development assistance is frequently packaged into agreements that mix grants and investment, and concessional and non-concessional loans (Bräutigam, 2011a, 2011b).⁵

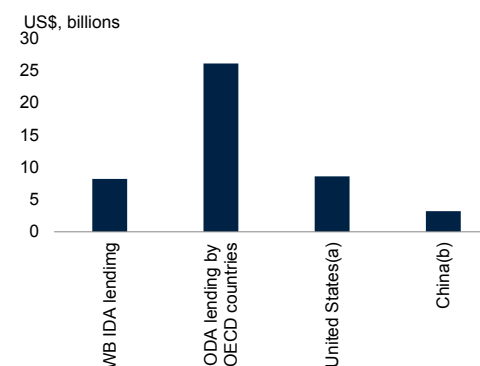
China is also increasingly channeling development assistance through multilateral institutions, including a \$2 billion co-financing fund between the People's Bank

⁴Key differences include definitions, the degree of concessionality, and conditionalities. Official development assistance is defined by the OECD as concessional funding given to developing countries and to multilateral institutions primarily for the purpose of promoting welfare and economic development in the recipient country. China is not a member of the OECD and does not follow its definition or practice on development aid. By this measure, the bulk of Chinese financing in Africa falls under the category of development finance, but not aid (Strange et al. 2013).

⁵There has been a longstanding debate over how the concessionality of these loans is defined. The 2014 White Paper on Aid by the Chinese government offers some clarification, indicating that "the difference between the concessional interest rates and the benchmark interest rates of the People's Bank of China is subsidized by the government's budget."

FIGURE B2.1.10 Development assistance to Sub-Saharan Africa

...but is much smaller in size.



Source: World Bank 2013 Annual Report .

a. 2012 OECD Development Assistance Committee statistics.

b. Chinese Statistical Yearbook and MOFCOM. Cited from <http://www.chinaafricarealstory.com/p/chinese-aid.html>.

of China and the African Development Bank in 2014.⁶ Finally, OECD country development assistance is typically accompanied by greater conditionality on social development projects and policy reforms. As a result, almost two-thirds of OECD assistance to Sub-Saharan Africa flows to the social infrastructure in health, education, water, and sanitation, or toward emergency relief and food aid (Figure B2.1.11). In contrast, half of Chinese assistance is for infrastructure.⁷

What has been the impact on growth in SSA?

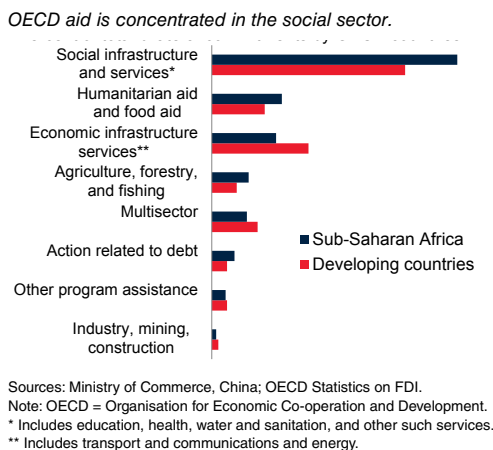
Growth has accelerated strongly in the region over the past two decades, coinciding with the expansion in economic ties with China. There has been a direct impact

⁶The World Bank has also signed two Memoranda of Understanding recently, one with China Eximbank in September 2013, and the other with China Development Bank in June 2013, to help co-finance projects.

⁷China is also increasingly engaged in combating ebola and in peace-keeping and security operations in Sub-Saharan Africa, supported by growing political relations. An example is the dispatch of combat troops under the UN mandate in Mali—a first for China, which has previously dispatched only noncombat personnel. In part, the increased engagement reflects a desire to reduce the impact of political instability on its supply chain. Thus, the mediation efforts undertaken by China, between government and rebel forces in South Sudan in 2013, and the expanded naval cooperation with Djibouti to secure the Gulf of Aden, may be seen in the light of China's imports of oil from South Sudan. In the first 10 months of 2013, these amounted to 14 million barrels, twice those from Nigeria (Sun 2014).

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FIGURE B2.1.11 Bilateral aid from OECD countries to Sub-Saharan Africa, by sector, 2013



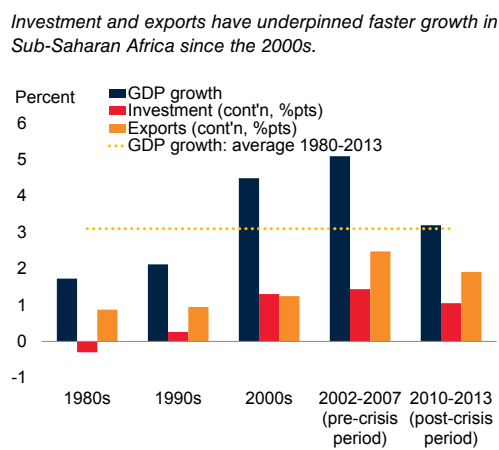
(via rising trade, investment aid, and flows) and an indirect one (via China’s demand for and impact on the prices of global metals and minerals). These impacts have been reflected in a quadrupling of the contribution of exports and investment to growth in gross domestic product in SSA since the 1990s (Figure B2.1.12).

Significant Chinese investment and development finance have been channeled into infrastructure. This is particularly important for SSA, given that transport and energy infrastructure deficits are severe and the returns to investing in infrastructure are large.⁸ Improved infrastructure contributed more than half of Africa’s improved growth performance in the pre-2008 decade (Foster and Briceno-Garmendia 2010). Between 2003 and 2009, FDI from China contributed almost 2 percentage points to growth in Zambia, about 1 percentage point in the Democratic Republic of Congo and Nigeria, and 0.5 percentage point in Madagascar (Whalley and Weisbrod 2011).

Indirect spillovers from growth in China have also been significant, especially for resource exporters. Drummond and Liu (2013) report that a 1 percentage point increase in China’s domestic investment growth

⁸Simulations by Foster and Briceno-Garmendia (2010) suggest that if all African countries were to catch up with Mauritius (the country in SSA with the densest road network), per capita growth in the region could increase by 2.2 percentage points

FIGURE B2.1.12 Contributions to growth in gross domestic product in Sub-Saharan Africa



is associated with an average 0.6 percentage point increase in SSA export growth, with a larger impact on resource-rich countries, especially oil exporters.⁹ Renard (2011) points to an additional benefit of China’s growth, through reduced consumer and investment prices, as cheaper Chinese manufactures and capital goods displace imports from the United States and the European Union. These may be partially offset by the displacement of local industries through imports from China (e.g., apparel in South Africa and Madagascar; Ademola, Bankole, and Adewuyi 2009).

What does slower, more balanced growth in China mean for the region?

In the near term, slower, more balanced growth in China, coupled with a shift toward more consumption and less investment, is weighing on demand and prices for commodities, especially industrial commodities such as iron ore and copper. These effects have been a factor in the negative terms-of-trade shock to metal- and mineral-exporting SSA countries over the past year (World Bank 2015). This situation may help to un-

⁹Busse, Erdogan, and Muehlen (2014) find a positive growth impact from terms-of-trade effects in resource-rich economies (but no impact from Chinese FDI).

BOX 2.1 (continued)

wind some Dutch disease pressures—stemming from real appreciation against the renminbi and weakening the competitiveness of African manufacturing—to which China's demand for raw materials had contributed over the past decade (Jeanneney and Hua 2015). In addition, tightening financial conditions in China may lead to higher funding costs for banks, which could slow Chinese companies' investment abroad, including in SSA (IMF 2014).¹⁰

Over the medium to long term, Chinese economic engagement should continue to grow, as reflected in recent proposals by the Chinese government to invest in regional rail networks, eventually linking five East African countries.¹¹ In part, this undertaking reflects growing opportunities in SSA, as well as China's growing strategic (political, economic, and security) interests in the region (Sun 2014). In the mining sector, for instance, SSA is one of the two major regions (alongside the Arctic) that have been less well-explored. The African market share is expected to grow, given the depletion of easily accessible mineral deposits in advanced countries and improvements in technology (ICMM 2012). Accordingly, although investments in infrastructure and mining are likely to slow, given the recent decreases in global commodity prices, Chinese investment should continue to add to the domestic demand for goods and services in SSA.

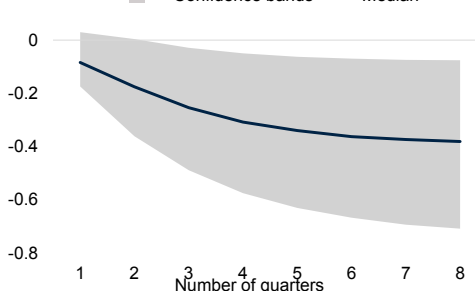
¹⁰To illustrate the possible short- and medium-term effects that a slowdown in China could have, a structural vector autoregression model was estimated for South Africa with data from 2000Q2–2014Q2. The key variables are the rest of world's gross domestic product (GDP) growth, global interest rates (proxied by the U.S. federal funds rate), China's GDP growth, South Africa's GDP growth. All variables are seasonally adjusted and transformed into log differences (quarter-on-quarter). The identification is based on a Cholesky decomposition with the variables ordered as listed, which is based on the presumed exogeneity or predetermination of variables. For instance, global GDP and global interest rates are presumably more exogenous than China's GDP in the vector autoregression system, and hence ordered before China's GDP. A 1 percentage point reduction in China's growth results in a 0.37 percentage point decline in output growth in South Africa at the end of a horizon of two years (figure B2.1.13), consistent with estimates in other studies (Houssa, Mohimont, and Otrok 2015).

¹¹In May 2014, China signed a deal to build a US\$3.8 billion rail link between Mombasa and Nairobi in Kenya, the first phase of a line that will eventually link Burundi, Rwanda, South Sudan, and Uganda. Under the deal, the Exim Bank of China will provide 90 percent of the cost to replace the decades-old British colonial-era line with a 609.3 kilometer (379 mile) standard-gauge link, while Kenya will fund the balance of 10 percent. http://news.xinhuanet.com/english/china/2015-02/24/c_134014338.htm.

FIGURE B2.1.13 Effect of slower growth in China on South Africa

Slower growth in China could dampen growth in Africa.

Percentage point impact on GDP growth from a 1 percentage point reduction in Chinese GDP growth



Source: World Bank.

Note: Results from a structural vector autoregression model with the following variables: South Africa's GDP, China's GDP, rest of the world's GDP, and global interest rates (proxied by the U.S. federal funds rate).

How can the region increase the gains from its growing partnership with emerging markets?

China's increasing presence in SSA has supported growth—somewhat similar to the impact of Japan's growing presence on East Asia in the 1960s. China's engagement has filled important infrastructure gaps and encouraged supply chain integration.

China is only one of several major emerging economies with an interest in SSA, the others being Brazil, India,¹² the Republic of Korea, the Russian Federation, and Turkey. And traditional OECD partners remain important—the magnitude of their aid, investment, and trade flows is (in aggregate) larger than that from China.

But to benefit fully from the opportunities presented by trading partners (including China), countries in SSA need to focus on improving domestic policies to reform institutions, increase transparency (especially in mining), improve business environments (the cost of corruption is heavy; World Bank 2015), and promote

¹²With \$52 billion in announced projects, greenfield investment in Africa by India actually surpassed the \$45 billion by China during 2003–12. It covered a wider range of sectors, including agro-processing, energy (including renewables), consumer goods, and financial services (OECD 2013). Greenfield FDI is where a parent company constructs new operational facilities. In addition to the boost from the investment itself, the hiring of staff to run these facilities creates new long-term jobs.

BOX 2.1 (continued)

the development of human capital. Closer economic cooperation among African countries—for instance, harmonizing laws and facilitating cross-border business and collaboration—could allow Africa to leverage the benefits of commerce with the major emerging market economies (OECD 2013; Jacoby 2007). This would also help lower the costs of bureaucracy and improve competitiveness. Improvements in regional infrastructure would encourage investment (domestic and foreign). Since natural resource wealth will remain

important for the region's growth prospects, better integration of the mineral sector into development and macroeconomic policy would help shield resource-exporting countries from volatility in commodity prices and assist with more sustainable, longer-term socioeconomic development (UNECA 2011). A higher degree of processing of agricultural and raw materials would take better advantage of preferential access to Chinese, U.S., and European Union markets and would mean more exports and jobs.

TABLE 2.11 Sub-Saharan Africa forecast summary*(Annual percent change unless indicated otherwise)*

	00–10 ^a	2011	2012	2013	2014e	2015f	2016f	2017f
GDP at market prices^b	5.7	4.3	4.1	4.2	4.6	4.2	4.6	5.0
(Average including countries with full national accounts and balance of payments data only) ^c								
GDP at market prices^c	5.7	4.3	4.1	4.2	4.6	4.2	4.6	5.0
GDP per capita (units in US\$)	3.1	1.7	1.6	2.4	2.1	1.7	2.1	2.5
PPP GDP ^c	5.8	4.4	4.2	5.0	4.9	4.4	4.8	5.2
Private consumption ^d	5.8	3.3	2.4	12.2	4.2	4.0	4.2	4.5
Public consumption	7.3	7.9	5.7	3.6	3.9	3.6	3.7	3.8
Fixed investment	9.8	2.0	9.2	5.6	6.7	6.7	7.3	7.8
Exports, GNFS ^e	4.8	10.2	1.0	-7.3	3.4	2.8	3.1	3.3
Imports, GNFS ^e	8.4	8.0	1.3	6.4	2.7	3.0	3.1	3.2
Net exports, contribution to growth	-0.7	0.7	-0.1	-4.3	0.1	-0.1	-0.1	0.0
Consumer prices (annual average)	8.4	10.1	11.1	8.1	9.0
Fiscal balance (percent of GDP)	-0.6	-1.1	-1.7	-2.9	-2.4	-2.2	-2.2	-2.1
Memo items: GDP								
SSA excluding South Africa	6.7	4.6	4.7	6.0	5.7	5.0	5.4	5.8
Broader geographic region (incl. recently high income countries) ^f	5.7	4.3	4.1	4.8	4.5	4.1	4.5	5.0
Oil exporters ^g	7.6	3.5	3.9	6.0	5.8	4.6	5.0	5.6
CFA countries ^h	4.2	2.3	6.0	4.5	5.4	3.8	5.5	6.0
South Africa	3.5	3.6	2.5	1.9	1.5	2.0	2.1	2.4
Nigeria	8.8	4.9	4.3	5.4	6.2	4.5	5.0	5.5
Angola	11.3	3.9	8.4	6.8	4.4	4.5	3.9	5.1

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Sub-region aggregate excludes Liberia, Somalia, Central African Republic, São Tomé and Príncipe, and South Sudan. Data limitations prevent the forecasting of GDP components or Balance of Payments details for these countries.

d. The sudden surge in Private Consumption in the region in 2013 is driven by the revised and rebased NIA data of Nigeria in 2014.

e. Exports and imports of goods and non-factor services (GNFS).

f. Recently high-income countries include Equatorial Guinea.

g. Oil Exporters: Angola, Côte d'Ivoire, Cameroon, Congo, Rep., Gabon, Nigeria, Sudan, Chad, Congo, Dem. Rep.

h. CFA Countries: Benin, Burkina Faso, Central African Republic, Côte d'Ivoire, Cameroon, Congo, Rep., Gabon, Guinea Bissau, Equatorial Guinea, Mali, Niger, Senegal, Chad, Togo.