Chinese Loans and African Structural Transformation

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7.1 Introduction

Guinea was China’s first African borrower. In 1960, Beijing offered Guinea a line of credit worth about US$25 million. The government of Sekou Toure used this finance to construct a cigarette and match factory employing 1,800 workers, a tea plantation and factory, a conference centre, and a small hydro-electric station in the Kavendou mountain area. This engagement went largely unnoticed by others. In 2017, fifty-seven years later, numerous media reported that Guinea’s minister of mining had announced that his government was negotiating with Chinese companies for a resource-secured line of credit worth US$20 billion that would be used for infrastructure in Guinea. Although this latter report turned out to be wishful thinking rather than factual, the comparison tells us quite a bit about how China’s loan programme has changed over time. It also shows how Chinese loans have supported Africa’s infrastructure and structural transformation for a very long time.

This chapter explores the relationship between Chinese loans and structural transformation in Africa. It draws on earlier research by the author (Brautigam, 1998, 2009) and on an original database of Chinese lending between 2000 and 2017 collected and curated by the China–Africa Research Initiative at Johns Hopkins University’s School of Advanced International Studies (Brautigam and Hwang, 2016).

Viewing Chinese loans historically and across Africa, the chapter begins by outlining the changing actors involved in lending and the rise of different kinds of loan instrument. It then discusses recent trends in loan finance, the regional distribution of loans, and the sectors financed by Chinese loans.
Drawing on this information, it examines the degree to which African borrowers use these loans directly or indirectly to support structural transformation projects in industrialization and agro-finance, and related infrastructure.

Although China’s loan programme in Africa was 58 years old at the time this chapter was being written, it has only recently begun to receive considerable media attention. Not surprisingly, Chinese lending is not well understood by the media and casual observers. In recent years, one might read that China provides loans to Africa primarily to facilitate Chinese access to the continent’s abundant resources, or that China provides loans to Africa primarily to meet Chinese strategic intentions. Multiple reports surfaced in 2017 and 2018 voicing fears about the terms of Chinese loans and the securities required by Chinese banks. This chapter will also shed light on those issues.

The chapter will pay special attention to the modalities of structuring loan finance and providing guarantees of repayment in risky environments, with many countries having only recently emerged from a long debt crisis. It will consider concern over rising debt levels in a number of African countries. Finally, it will provide case studies of several particularly interesting loan-financed arrangements in countries that are still to be determined, but potentially including Angola, Ethiopia, Zimbabwe, Chad, Ghana, South Africa, and the DRC.

7.2 A Historical Framework for Chinese Loans

The line of credit offered by Beijing to Guinea in 1960 was interest free, and denominated in Chinese renminbi. Other lines of credit followed. By 1970, Guinea had borrowed about US$70 million from China (Bartke, 1989). At that time, China’s Ministry of Commerce and its various predecessors were the only Chinese entities providing loans overseas. All lines of credit were zero interest and carried a term of either fifteen or twenty years, with a five- or ten-year grace period before principal payments began.

Cash from these loans was never actually delivered to Guinea, but Guinea could use these lines of credit to pay—in China—for Guinea’s imports of Chinese goods, technical expertise, and other Chinese services, including engineering and construction projects. These credits could also pay for local project expenses such as the local labour teams that worked on the projects.

Monthly accounts were kept and reconciled by the People’s Bank of China on the Chinese side and by Guinea’s Ministry of Finance, specifying disbursements of the credit to other Guinean ministries: Public Works, Agriculture, Energy and Power, Social Welfare, and so on. When Guinea decided which projects they wanted to fund with these credits, the Chinese would arrange for a Chinese team of skilled personnel to arrive and conduct feasibility studies.
(the costs of this were shared by the two sides). If the project appeared feasible—and in Chinese eyes of the Mao era and even later, this was generally limited to technically, not economically, feasible—the Chinese and their counterparts in the particular Guinean ministry would proceed to build a bridge, develop an agricultural project, and so on.

In the first decades after independence, foreign exchange shortages were common in Africa and the Chinese yuan was not a convertible currency, that is, it could not be directly used overseas. Therefore, these zero-interest loan agreements always specified that repayment could be made in the form of convertible currencies (i.e. dollars, pounds, francs, etc.) or through the export of goods from the African country to China.

Likewise, in order for projects not to be delayed because African governments were often unable themselves to finance the local expenses such as payments to local workers, local transport, and food and housing for the Chinese experts, the Chinese structured the system so that their loans could also pay for these. This was done through the export of goods from China that were then sold locally, generating local currency. Each side would develop a list of commodities that could be part of this process. From African countries like Guinea, these would typically include all that Guinea was able to export: agricultural commodities, locally manufactured food, and mineral ores. From China, the list was more varied and would include textiles, rice, building materials, and so on.

The repayment period for many of these early loans coincided with the start of a long and contentious period of economic crisis in Africa. During the 1970s, an excess of petrodollars from the first oil price shocks cycled through the global economy and into the accounts of eager borrowers in the developing world. At the same time, the wealthy countries of the north sank into prolonged stagnation combined with inflation. The election of Margaret Thatcher in the United Kingdom and Ronald Reagan in the United States led to a sharp rise in global interest rates. Led by Mexico in August 1982, countries that had been borrowing at a variable rate, based on the low interest rates of the 1970s, defaulted on their loans from Western commercial banks.

This ushered in a long period of what is often called neoliberalism, with an emphasis on markets, privatization, and austerity. With very few exceptions, African countries fell deeply into debt to private markets, wealthy creditor-country governments, and the international financial institutions (IFIs)—the World Bank and the International Monetary Fund. They also owed more modest amounts of money to China’s central bank, the People’s Bank of China, which repeatedly requested that countries remit the payments due on their loans. However, as one West African government lamented in 1979, ‘due to the inavailability [sic] of foreign exchange we have not been able to meet their requests’.
During the 1980s, while countries in Africa struggled with controversial neoliberal structural adjustment programmes negotiated with their creditors in the West, China embarked on its own march towards the market. China continued providing zero-interest loans to African countries during this period, with new economic and technical cooperation agreements penned in forty-five countries between 1980 and 1999 (Brautigam, 2008).

In 1994, in an institutional reform designed to make China’s economic statecraft compliant with the World Trade Organization, China established two new credit-issuing institutions that by 2018 had become the dominant face of Chinese loans in Africa: the China Export Import Bank (China Eximbank) and the China Development Bank (CDB). The zero-interest loan programme would continue, and would continue to be administered by the Ministry of Commerce. As Chinese firms began to expand their commercial business in Africa after 1978, they began to draw on their own financing sources to offer supplier’s credits to African borrowers. We see the first of these company-financed credits emerging in the late 1990s. Finally, the first Chinese commercial banks began operating in Africa at the turn of the new millennium, around 2000.

Thus, as the twentieth century drew to a close, Chinese lending in Africa was changing, with new instruments of engagement, but the overarching goals of this lending did not change. In 1960, Chinese loans supported China’s economic diplomacy, and its then very limited commercial aspirations. In those decades, the primary goal of economic diplomacy was to encourage countries to recognize the People’s Republic of China (Beijing) as the ‘One China’ instead of its political rival the Republic of China (Taiwan). At the same time, these loans also provided opportunities to boost China’s limited overseas business—which in the 1960s consisted only of a small quantity of exports. When China began to turn towards the market in late 1978, those goals remained in place, although the diplomacy aspect was far and away the most dominant. And though the order has been reversed, with commerce taking the lion’s share, the data suggest that these goals are still in place today.

7.3 China’s Overseas Lending Institutions in the Twenty-First Century

Between 1994 and 2017, as we can see in Table 7.1, Chinese lenders proliferated in Africa. This was in keeping with the much larger Chinese economic engagement with all world regions, including the rest of Asia, North America, Europe, and Latin America, where trade, outbound foreign direct investment, and contracting all expanded along with the expansion and maturation of the Chinese economy.
Beginning in 2000, as other contributions to this volume have noted, African countries and China established the Forum on China–Africa Cooperation (FOCAC). With its regular summits and ministerial meetings, FOCAC over time has institutionalized and simplified the Chinese government’s economic cooperation and assistance pledges for African development. Since 2006, loan pledges have become a regular part of the FOCAC summits and ministerial meetings, but in each FOCAC the wording has been different, making the pledges hard to compare. In 2006, for example, Beijing pledged to provide US$5 billion (in concessional loans and preferential export credits) and to ‘double’ official aid by 2009 (this we can take to be interest-free loans and grants). By 2015, the pledge had mounted to US$35 billion (concessional loans, preferential export credits, lines of credit) plus US$5 billion in zero-interest loans and grants. In 2018, the Chinese pledge combined the grants, interest-free loans, and concessional loans (US$15 billion) and added US$20 billion in lines of credit.

Table 7.1 and Figure 7.1 provide overviews of the quantity of Chinese lending in Africa since 2000. More details on these lenders can be found below.

### 7.3.1 Ministry of Commerce (MOFCOM)

As of 2016, the Ministry of Commerce remained actively in charge of China’s economic diplomacy, and the zero-interest loan programme continued to provide at least symbolic support to China–Africa relations. These agreements are difficult to track. They are usually signed during diplomatic events (generally during visits by Chinese officials to an African country) and they take the form of an ‘economic and technical cooperation agreement’ which will usually include a specific amount of funding made up of zero-interest loans and grants. These have become relatively small, compared with the larger...
loans available from newer lenders, and they generally fund government buildings, including stadiums. We do not track grant funding, but our database shows at least 117 separate zero-interest loan and economic and technical cooperation agreements signed by Chinese and African governments between 2000 and 2016.

7.3.2 China Export Import Bank (Eximbank)

As noted above, in 1994, China Eximbank became China’s official export credit agency. As with other export credit agencies, its primary mission is to bolster opportunities for national companies seeking business opportunities overseas. To do this, China Eximbank provides three basic kinds of loans. Export seller’s credits are loans to Chinese companies or ‘export sellers’ who need funds to boost their business abroad. Export buyer’s credits are loans to buyers of exported Chinese goods and services. These two are provided at negotiated commercial rates based on the market. However, China Eximbank also operates a third category that it calls ‘preferential loans’—preferential export buyer’s credits (youhui maifan xindai) and concessional foreign aid loans (youhui daikuan). Both loan instruments have interest rates that are subsidized by annual appropriations from the Chinese budget. They are only provided to other developing-country governments or their state-owned firms. Only the concessional loans are considered Chinese official development assistance (ODA). Finally, the Eximbank also provides guarantees for Chinese companies who are not borrowing from this bank but need to reduce their risks.

Because the Chinese foreign aid budget—which supports the interest-rate subsidies for the concessional loans—is relatively small, the number of
concessional loans that China Eximbank can fund each year is limited. Interest-rate subsidies for the preferential export buyer’s credits, which are supported from a separate budget for economic cooperation, are also limited. China Eximbank raises capital for its other loan instruments through bond issues and various other means, but they are not supported directly by appropriations from the state budget.

China Eximbank issued its first eight overseas concessional foreign aid loans in 1995, including at least one US$5.75 million loan in Africa, for Equatorial Guinea. Over the next two decades, China Eximbank opened branch offices in Morocco (to serve West and North Africa) and in South Africa (for Southern and East Africa). By 2017, according to our data, China Eximbank had signed off on at least 559 loans with a total value of US$75.7 billion in forty-four African countries (this includes separate projects emerging from a single line of credit). From the evidence we have seen, China Eximbank appears to be in charge of fulfilling the FOCAC commitments relating to concessional and preferential loans and other lines of credit. Between 2012 and 2016, this bank averaged US$9 billion annually in loan commitments.

7.3.3 China Development Bank

Like China Eximbank, China Development Bank is a state-owned policy arm of the Chinese government, much like the Overseas Private Investment Corporation (OPIC) in the United States, or the Commonwealth Development Corporation (CDC) in the United Kingdom. China Development Bank’s main mission is, as its name suggests, the development of China. Most of CDB’s loans have been provided to various borrowers within Chinese territory, to build infrastructure or otherwise boost economic transformation in China itself.

In 2005, CDB began providing support for Chinese overseas investment projects (Downs, 2011). In 2009, CDB established a branch in Cairo, and this remains its only African office. CDB is in charge of one of the FOCAC loan pledges: support for African small and medium enterprises. By the end of 2017 (provisional figures) CDB had committed around US$30.5 billion in loan finance to governments and their SOEs in Africa, according to our figures.

7.3.4 Chinese Commercial Supplier’s Credits

Chinese companies also offer supplier’s credits to African borrowers, often through export seller’s loans that the Chinese company has obtained from China Eximbank (or another Chinese bank). This means that the African borrower needs to repay the Chinese firm, which in turn will repay the Chinese bank—a practice that reduces risks and lowers costs for the Chinese
banks. Chinese companies have been offering these supplier’s credits for nearly two decades. In 2000, for example, we can see the China International Water and Electric Corporation (CWE) using its access to export seller’s finance to secure a contract for a rural electrification project in Ghana, while a commercial supplier’s credit from Chinese Harbin Power and Electricity Company helped finance a gas-fired power plant in Sudan. In order to safeguard against non-payment or default by African governments or their state-owned firms, Chinese suppliers using official export seller’s credits were required to purchase export credit insurance from China Eximbank, and later, Sinosure (see Section 7.3.6). Our data show that by 2017, at least twenty-three different Chinese companies had provided project finance to African governments using supplier’s credits, for a total of at least US$8.22 billion.

7.3.5 Chinese Commercial Banks

The first Chinese commercial bank to arrive in Africa, Bank of China (not to be confused with China’s central bank, the People’s Bank of China), set up an office in Zambia in 1997. However, loans from Bank of China were primarily targeted to Chinese construction companies who needed financial guarantees to support their contracting bids, and other instruments like short-term letters of credit issued to support China–Africa trade finance. Bank of China rarely appears in our database as a sole lender to African governments, although they have joined other Africa-based banks in some syndicated loans. In 2008, Industrial and Commercial Bank of China, the world’s largest commercial bank, purchased around 20 per cent of South Africa’s Standard Bank. Since then, ICBC has expanded its Africa portfolio and by 2018, ICBC had been involved in thirty large projects in Africa (Eom, Brautigam, and Benabdallah, 2018). Much of this involved ICBC as lead arranger for, or participant in, syndicated loans.

Beginning as early as 2002, we start to see Chinese commercial banks—sometimes joined by the policy banks—participating in syndicated loans and other novel (for China) kinds of credit instruments in Africa. In the earliest example in our data, we see China Construction Bank and Bank of China participating as arrangers in several three- and five-year-term syndicated loans to boost the foreign exchange position of South Africa’s Reserve Bank. The largest syndicated loan in our database is US$4.1 billion in support of the massive 2170MW Caculo Cabaca hydropower project in Angola. Here, ICBC brought together a number of China-based banks, Bank of China’s Beijing Branch, China Construction Bank’s Beijing Branch, China Minsheng Bank, Ping An Bank, and China Shanghai Pilot Free Trade Zone Branch.

The involvement of Chinese banks and foreign banks continues to expand. For example, a consortium of banks, including ICBC, Deutsche Bank, and
Goldman Sachs, led Angola’s Eurobond issue in 2015. Finally, as the newest lending instruments, we see that in 2017, the Johannesburg branch of the Bank of China issued the first renminbi-denominated bond offered in Africa, with a yield of 4.88 per cent (Dai, 2017).

7.3.6 Sinosure

While Sinosure does not directly offer loan finance to Africa, it is an important actor in the lending and risk mitigation system. Sinosure was established in late 2001, and took over much of the credit insurance business from China Eximbank. As its website states, Sinosure provides a number of export credit insurance products, including short-, medium-, and long-term export credit insurance, overseas investment insurance for Chinese companies operating in riskier environments, and bonds and guarantees that might be required by an African government or multilateral financial institution to allow Chinese firms to participate in engineering, procurement, and construction (EPC) projects. Sinosure also provides accounts receivable management assistance to help Chinese companies manage the process of collecting money owed to them, and information consultation and risk analysis services including its proprietary SinoRating. Sinosure releases an annual Handbook of Country Risk, and country and sovereign credit risk analysis reports that evaluate political risk, economic risk, business risk, and legal risks for firms.

In Africa, we begin to see Sinosure in the picture as a guarantor as early as 2002, when Chinese companies began to offer their own financing. Sinosure also began to accompany representatives of China Eximbank and China Development Bank as countries discussed borrowing arrangements and restructuring or arrears on some of their current Chinese loans. In 2004, when Zimbabwe had fallen behind on a US$35 million loan borrowed from China Eximbank in 1997 to refurbish blast furnace 4 of the Zimbabwe Iron and Steel Corporation, Sinosure had to make a payment to China Eximbank. In 2008, three countries dominated Sinosure’s payouts for medium- and long-term export credit insurance claims by Chinese financiers: Cuba (84.3 per cent), Benin (9.8 per cent), and Zimbabwe (5.9 per cent) (Sinosure, 2008). African claims are normally only about 5 per cent of Sinosure’s claims. In 2011, however, after the crisis in Libya, African claims jumped to 32 per cent, of which 29 per cent was for claims related to Libya.

7.4 Chinese Loans and Structural Transformation

When Ngozi Okonjo-Iweala, a vice president of the World Bank and former finance minister for Nigeria, asked the Chinese how Nigeria could achieve
10 per cent growth like China’s, they answered: ‘Infrastructure—infrastructure and discipline’ (Downs, 2011). By all accounts, improved infrastructure is not simply a by-product of social and economic development; it is also an essential precondition. Improved roads and transport options not only enable low-income families to reduce costs when moving their products to market, they also save lives when people living in remote areas are able to reach medical care during emergencies such as difficult births and on-farm accidents. Debates exist over just how to establish the benefits of a particular infrastructure investment and over what kind of time period. To some, the construction of a large public building like a new airport can be seen as an expensive white elephant requiring care and maintenance; to others, the same building can be a symbol of national pride and a step into the future.

It is clear from our data that African governments have borrowed from China largely to fund infrastructure, but also to fund productive projects that aim to add value to Africa’s natural resources, including its agriculture. These dual emphases have a long history. In the 1960s, the government of Sekou Toure used its first zero-interest loan from China to construct a cigarette and match factory to substitute for imports, and also a 3.2kW hydroelectric station at Kinkon with high-voltage lines that would electrify Guinea’s Kavendou mountain area. Several subsequent rounds of loans from China funded a tea plantation and factory, a vegetable oil-pressing mill, and a second hydropower station at Tinkisso (Bartke, 1989; Brautigam, 2015). Let us turn first to infrastructure.

7.4.1 Chinese Loans and African Infrastructure

It was also in Guinea that the Chinese began their first discussions about financing a railway in Africa. It is generally known that one of the flagship projects financed by Chinese loans during the Mao period was the Tazara Railway, built between 1970 and 1975, which allowed Zambia to export its copper to Europe through Tanzania without using the railway built by the British and controlled by then white-ruled South Africa. However, few remember that during the 1960s, China, Guinea, and Mali began to plan a 360km railway that would give Mali a more direct outlet to the ocean by extending the French colonial railway from Mali’s capital Bamako to the Guinean town of Kankan, where it would join Guinea’s railway system.

The three countries concluded an agreement to build the railway in 1968, and Chinese surveyors arrived to begin work in August that year. When the French government had earlier studied the same project while ruling Guinea as its colony, it had rejected the project as uneconomical. But Senegal, which at the time did not have official diplomatic relations with Beijing, refused to grant the project the right to use the Dakar–Bamako railway line. As one
The railway line is of no economic importance whatever, as there is no goods exchange between Guinea and Mali nor will there be any in the near future. Obviously the plans for this line were made for political considerations on the part of both Sekou Toure and Modiba Keita. After Keita’s fall, the project was, accordingly, never heard from again’ (Bartke, 1989).

Throughout the ensuing decades, Chinese loans continued to fund African infrastructure. For example, in addition to the hydropower plants in Guinea and the well-known Tazara Railway project completed in 1976, China funded hydropower plants in the Congo (1980) and Sierra Leone (1986). Water supply projects were financed in metropolitan areas of Mauritania (1987) and the Republic of the Congo (1990). Ethiopia borrowed to build a road between Werota and Woldia (1983), while Zambia built the 2.5-kilometre-long Luapula Bridge with a Chinese loan (1983). In Mauritius, a Chinese loan funded the construction of a terminal at Plaisance Airport (1983), while the Central African Republic built a public broadcasting station with a Chinese loan. While there were not many projects in these sectors during this period, Chinese companies were gaining experience and adding to their portfolios, something that stood them in good stead when China joined the World Trade Organization (in 2001) and began accelerating its push for state-owned companies to ‘go global’.

During the 1980s and 1990s, Chinese companies in Africa were finding that construction was an attractive business. As early as 1979, they began to bid on projects financed by others: bilateral and multilateral donors, African governments, and the private sector. In Mali, for example, a Chinese company won the contract to build the King Fahd Bridge in Mali’s capital Bamako between 1990 and 1992; this was financed by Saudi Arabia.

In 2000, Chinese EPC companies reported gross revenues of US$1.1 billion from their African projects, and Africa made up just 13 per cent of their global revenues. By 2016, their annual revenues had climbed to US$50 billion, and Africa was providing over a third of global EPC revenues. Loans from China’s export credit agency China Eximbank were intended to stimulate African business for Chinese exporters of goods and services. Yet our data show that only about 20 per cent of these projects were financed by Chinese loans. Chinese companies were getting increasingly good at marketing themselves and competing with others to win tenders.

Between 2000 and 2016, African governments and their state-owned enterprises borrowed approximately US$130 billion from Chinese lenders, including all of the institutions profiled above. The majority of Chinese loans to Africa go towards transportation. During this period, at least US$40.6 billion (31 per cent of loans) financed the building or upgrading of roads, railways, ports, airports, and harbours. Although railway projects have attracted considerable attention in the media, as far as we can tell, China has actually only
financed four greenfield railway projects: a new standard-gauge railway (SGR) in Sudan, several new sections of the Lagos–Kano railway in Nigeria, several sections of a new SGR in Kenya, and a new line from Ethiopia through Djibouti giving land-locked Ethiopia access to the sea. Since 2000, the Chinese have also provided loan finance for the renovation of several previously existing railways, including Tazara (Tanzania–Zambia) and Benguela in Angola.

The changing nature of Chinese loan funding in Africa’s railway sector is well illustrated by the contrast between the 1970s-era Tazara project and South Africa’s Transnet. Given its diplomatic importance, all Chinese loans for Tazara were, and continue to be, zero-interest foreign aid loans. However, South Africa’s state-owned railway corporation has financed purchases of rolling stock from China, first by borrowing from China Development Bank and then through several syndicated commercial loans involving Chinese participants (Bank of China and China Construction Bank) as well as South African financiers (ABSA, Nedbank, Future-growth Asset Managers, and Old Mutual Specialised Finance).

African governments have also borrowed heavily from China to build new roads and repair existing roads. Our database shows Chinese loans for the road sector totalling US$18 billion between 2000 and 2016. Angola has borrowed more than other African countries for roads and bridges, which is not surprising given that Angola’s civil war (1975–2002) destroyed much of the country’s transport infrastructure. The other top borrowers for roads and bridges include the Republic of Congo, Zambia, Mozambique, and Ethiopia. In these countries, Chinese loans have funded the construction of major roads. For example, in the Republic of Congo, loans from China helped rebuild National Road No. 2, the country’s major north-south, colonial-era transport corridor. Ethiopia used loans from China to build a ring road around the capital, Addis Ababa, and to construct a toll road extending out from the capital, among other road projects. Finally, Chinese loans have financed air transport infrastructure—mainly adding more modern terminals at Africa’s existing airports. We see very few examples of greenfield airport finance.

The second infrastructure sector where African governments borrow most heavily from China for their development goals is electric power. Our database contains over 160 loans for electric power production and distribution totalling nearly US$33 billion between 2000 and 2016. Most of these projects are for renewable energy. Within the power sector, African governments have borrowed US$24 billion from China for hydropower projects and associated distribution lines and just US$2.5 billion for coal- and oil-fired power plants.

Other important sectors for infrastructure loans from China include telecommunications and water. African governments have borrowed over US$7
billion for telecoms projects, particularly for the installation of broadband fibre-optic lines that are connecting more remote areas to the internet. Urban and rural water projects make up about US$4.5 billion.

7.4.2 Chinese Loans for Manufacturing, Agro-Industry, and Other Value-Added Production

As with infrastructure, China has a long history of providing African governments with loans for manufacturing, agro-industry, and other value-added productive sectors. In the first decades of the zero-interest loan programme, African governments were far more statist in orientation, and many established state-owned farms and state-owned factories. China provided financial assistance for some of these. During the era of structural adjustment, many African countries privatized their state-owned companies. Some established joint ventures with Chinese participation. For example, the Friendship Textile Factory in Tanzania, built between 1966 and 1968, was partially privatized and is currently a joint venture between the Tanzanian government and a company owned by a provincial government in China. In Mali, a large sugar project continues to operate as a joint venture between the Mali government and a Chinese company.

However, given the strong trend towards moving governments out of the running of productive enterprises, between 1995 and the present, we do not see many African governments borrowing for the setting up of new agro-industries or manufacturing. There are some exceptions to this. The most notable are probably the establishment of petroleum refineries in Sudan, Chad, and in Niger. The Chinese government provided loan finance for all three projects. As oil producers, these three countries decided to eschew the trend across Africa of sending their raw crude out to be refined in Europe, and importing petroleum products. Questions have been raised about the cost-effectiveness of establishing these local refineries.

Chad, Eritrea, Ethiopia, and the Republic of Congo have borrowed from China to set up modern cement factories. Several countries, including Ethiopia and Sudan, have used Chinese loans to build sugar refineries. As noted above, in 1997, Zimbabwe borrowed US$35 million from China Eximbank to refurbish its state-owned steel company. Several countries have borrowed to finance agro-industrial grain-milling projects, including Zambia and Mozambique. The country that has borrowed the most from China for production-oriented projects is Angola. In particular, Angola has countered the trend of privatization by borrowing money and Chinese expertise to set up state-owned farms that the government hopes will help end Angola’s high dependency on imported grains (Brautigam, 2015).
7.4.3 Special Economic Zones and Industrial Zones

The first African country to request Chinese assistance in setting up a special economic zone or industrial zone was Egypt in 1997 (Brautigam and Tang, 2011). Others followed, and today there are zones with Chinese involvement as investors in a number of African countries. However, we do not see much in the way of African government borrowing for the construction of these industrial zones. Most have been co-financed by Chinese investors (some of whom have themselves borrowed from Chinese banks) and African governments. An exception is an industrial park focused on machinery that is being co-developed in Adama, Ethiopia by the Ethiopian Industrial Parks Development Corporation (IPDC) and Changsha Economic and Technical Development Group Corporation, a state-owned company located in Hunan, China. The Ethiopian government borrowed US$262.3 million for its share of this park.

7.4.4 Risky Business

Around 1980, nearly two decades after independence, many African countries began falling into a prolonged period of debt crisis. In 1996, after many years of contentious structural adjustment programmes and the continued inability of countries to repay their loans, the international financial institutions (IFIs) launched what was called the Highly Indebted Poor Countries (HIPC) Initiative. The HIPC Initiative allowed low-income African countries that were able to meet its conditions a pathway to have all their IMF and World Bank debts cancelled. Some countries, including Zimbabwe, were deemed not eligible for HIPC. Others, including Somalia, Sudan, and Eritrea, were unable to start the HIPC process. These four remained in a debt distress that dated back to the 1980s.

As we can see, during the period when the IFIs were developing the HIPC process, the Chinese were just beginning to expand their lending to Africa, moving for the first time away from zero-interest loans to interest-bearing instruments. Their response to the first African debt crisis was two-fold. First, they developed their own debt relief programme for the zero-interest debt that countries were unable to repay. And second, they developed a number of ways in which they thought the risks of lending in African countries might be reduced.

7.4.4.1 DEBT RELIEF

At the start of the debt crisis, the Chinese first responded by providing debt relief: rescheduling payment terms for debts. For example, repayment for Zambia and Tanzania’s Tazara Railway was postponed for ten years. Ghana
and Niger were granted another five years for repayment. China’s debt cancellation programme was first announced in 2000 at the first summit of the FOCAC in Beijing. China pledged to reduce or cancel RMB10 billion of debt (about US$1.2 billion at the time) owed by highly indebted poor countries and least-developed countries in Africa. Given that Eximbank’s concessional loans normally had a five-year grace period, this would have been before any countries had begun to make payments on their concessional loans, and so all of this debt was due to zero-interest loans.

At the United Nations in New York in 2005, the Chinese pledge became both more specific and cross-regional. China would cancel ‘or forgive in other ways all the overdue parts as of the end of 2004 of the interest-free and low-interest governmental loans owed by all the HIPCs having diplomatic relations with China’. Unlike the IMF and the World Bank, China cancelled debts without requiring any programme of reforms, after a brief review of the country’s economy and actual need, and after a reconciliation of Chinese figures with those held by the local ministry of finance. Somalia’s, Eritrea’s, and Sudan’s zero-interest loan debts were among those cancelled (Brautigam, 2009). In almost all of the FOCAC triennial summits, new pledges were made about cancelling overdue zero-interest debt. By the end of 2012, the Chinese announced that they had cancelled African overdue zero-interest loan debt worth Chinese ¥20.38 billion in renminbi (approximately US$3.27 billion) at the 2012 exchange rate (State Council of China Information Office, 2014). There have been no announcements of totals of debt cancellation since that date.

7.4.4.2 REDUCING RISKS FOR AFRICAN LENDING
Keenly aware that Africa was a risky lending environment, China Eximbank used several methods to reduce risks on its loans. Some low-income, crisis-prone countries like Liberia were provided only with modest grants for many, many years. But with riskier countries like Zimbabwe, Angola, or Ghana, that had high income potential but had already proven unable to pay back their loans, China Eximbank commonly negotiated further security for some (but not all) loans. These were based on future profit streams or future income and were built into the lending agreements. These future-flow receivable transactions were complex, as they involved multiple actors: China Eximbank, the African country’s ministry of finance, usually another ministry or African state-owned company in charge of some kind of production that could be sold to earn foreign exchange, and a buyer, nearly always a Chinese buyer.

For example, in Ghana, a Chinese loan to support construction of the Bui Dam was secured through an arrangement whereby the Ghanaian marketing board for cocoa, Cocobod, arranged to export cocoa beans to a Chinese buyer (Brautigam, Hwang, and Wang, 2015). Bui Dam was financed by Ghana’s
government and by four Chinese loans. The first two were negotiated successively: first, a commercial-rate export buyer’s credit of US$292 million signed in September 2007 with a seventeen-year maturity, five-year grace period, and a rate of CIRR plus a margin of 0.75 per cent; and second, a concessional foreign aid loan of RMB 2.1 billion (about US$306 million at the time) signed in September 2008 with a twenty-year maturity, seven-year grace period, and a fixed interest rate of 2 per cent. Two additional loans were later negotiated in 2012 to pay for cost overruns on the dam: a US$75.4 million loan at an interest rate of 2 per cent for twenty years, with a five-year grace period, and a US$76.2 million loan at a zero interest rate, for fourteen years, with a two-year grace period.

The Chinese funding is secured through ‘off-take’ arrangements that involve future flows of income: one based on cocoa, and a second based on future electricity revenues expected from the dam. The cocoa security was arranged through a sales agreement between Genertec Corporation of China and the Ghana Cocoa Board (Cocobod) for up to 40,000 metric tons (Mt) of cocoa beans (30,000 main crop, 10,000 light crop) annually for the first five years of the loan. The cocoa beans will be sold at the prevailing market price, and the proceeds placed in an escrow account with China Eximbank.

The off-take arrangement requires Bui Hydropower to have a power purchase agreement with the Electricity Company of Ghana: 85 per cent of energy sales from Bui will be deposited into an escrow account to help repay the loan. The excess funds in the account can be withdrawn by Ghana, or they can stay in the account and earn interest. The price for the future electricity was tentatively negotiated to be in a range between US$0.035 and US$0.055 cents/kWh. According to the World Bank, the average electricity tariff in Africa was effectively much higher than Ghana’s at US$0.13 per kWh. It is possible that Ghana will face pressure to raise its electricity tariffs from the China Eximbank, a role the World Bank and IMF have played in the past.

This chapter has gone into some detail on the Bui Dam arrangement because it has been one of the most transparent. However, in our experience, perhaps surprisingly to many, these arrangements are rather uncommon. We find that most of the large lines of credit in Angola (the most well-known examples) take this form. The Chinese have also used this future-flow security for large lines of credit in the DRC, Equatorial Guinea, Sudan, and the Republic of Congo. In several other countries, the model was proposed and sometimes an agreement was even signed (Niger, Nigeria, Gabon) but for various reasons the arrangement did not progress beyond that point and the agreements expired. In Ethiopia a similar arrangement was put in place when the first large line of credit was signed, but in this case, repayments came from an escrow account filled with receipts from all of Ethiopia’s then exports to China, which were nearly all sesame seeds (Brautigam and Hwang, 2016).
7.4.4.3 CONCERNS OVER CHINESE LENDING AND AFRICAN DEBT MANAGEMENT CAPACITY

Our CARI loans database tracks Chinese loans through 2017. It shows that Chinese loan commitments to Africa increased significantly after the December 2015 FOCAC summit in Johannesburg. In 2015, China committed US$13 billion; in 2016, China committed over US$30 billion, the highest annual commitment to date. Preliminary figures for 2017 show a more ‘normal’ year (see Figure 7.1). There are two points to note here. First, our loan figures should not be viewed as fitting neatly into the categories announced at various FOCAC summits. China Eximbank is usually in charge of FOCAC pledges of general loans, export credits, and credit lines, although China Development Bank manages the Special Fund for SME loans. Second, we also track loans made by a number of other Chinese banks, including China Development Bank, as well as Chinese supplier’s credits which, as noted above, involve commercial loans at negotiated market rates. Angola has had a large appetite for these loans, particularly in 2016, which explains that year’s anomalous figure.

As of 2018, worries about Africa’s debt situation had risen to very high levels. As of July 2018, a third of the forty-five countries in Africa had over-reached in external and internal borrowing, according to a statement by Abebe Aemro Selassie, director of the IMF’s Africa Department. At the same time, he noted, ‘most African countries have debt levels that are manageable’.

What is the role of Chinese lending in this debt distress? Our analysis updates the July cases to add an additional two considered to be in debt distress. In August 2018, our team analyzed seventeen countries at risk of, or already in, debt distress, using IMF criteria (Eom, Brautigam, and Benabdallah, 2018). In Group 1, comprising eight countries—Burundi, Cape Verde, Central African Republic, Chad, The Gambia, Mauritania, São Tomé and Príncipe, and South Sudan—Chinese loans were a relatively small share of debt. In most of these cases, the major factor behind the debt distress was conflict-related economic collapse, commodity price collapse, or other economic management factors internal to the country. In Group 2—Cameroon, Ethiopia, Ghana, Mozambique, Sudan, and Zimbabwe—China was a more important creditor but each country in this group had also borrowed significantly from other sources. Chinese loans (which are not the same as debt, since countries have made some payments on these loans) ranged from a quarter to just under half of total debt in each case. Finally, Chinese loans at that point were the major factor in only three countries (Group 3): Zambia, Republic of the Congo, and Djibouti.

While history tells us that in Africa, debt has, along with economic growth, gone through several cycles of high and low, the China factor should neither be exaggerated nor ignored. Given the lower pledges of loans in the 2018
FOCAC, it is clear that Chinese policy banks have a similar analysis. What is not clear is whether the other commercial lenders and exporting companies will exercise the same restraint.

References