New data show that China makes up 22% of public debt stock (2018) and 29% of debt service (2020) in low income Africa. Yet China’s role should not be overestimated. In over half of the 22 countries facing debt distress, China is a small lender. Their debt problems are not made in China.

In seven of these 22 countries, China accounts for a quarter or more of all public and publicly guaranteed debt: Angola, Djibouti, Cameroon, Republic of Congo, Ethiopia, Kenya, and Zambia. Four of these countries negotiated debt restructuring with Chinese lenders in 2018 and 2019.

Chinese banks’ “project-by-project” analysis may have disregarded the overall debt risk in borrower countries. Only a quarter of Chinese lending is secured by natural resource exports.

Borrower government should plan their projects better before they borrow. A large portion of Chinese loan commitments are slow to disburse, partly due to borrowers’ inability to meet their share of project responsibilities. Delays hurt the bank, the contractor, and the borrower government.

FROM MODEST BEGINNINGS IN 1960, CHINA HAS RECENTLY become a highly visible actor in Africa’s lending landscape. African borrowers have built roads, installed electrical grids, and modernized their airports with Chinese finance. Yet when commodity prices and growth rates began to tumble in 2015, the specter of a new debt crisis arose. These fears expanded sharply with the impact of the COVID-19 pandemic.

Are the African countries most vulnerable to debt distress those with high Chinese debt? Who are the Chinese lenders in Africa and how do they manage lending in risky environments? Is China a bigger lender than the World Bank? What kind of terms do we see on Chinese loans in Africa? How often are loans collateralized with natural resource exports? Do Chinese banks require property as collateral for loans to African governments or their state-owned enterprises (SOEs)?

In this paper we attempt to answer these questions, using data on Chinese loan commitments from the SAIS China Africa Research Initiative and the World Bank, and data on African borrowing and debt levels from the World Bank and International Monetary Fund’s International Debt Statistics. Our analysis finds that Chinese loans play a more modest role in Africa’s struggle with debt sustainability than conventional wisdom would suggest. The picture varies sharply across the continent’s 54 countries, however. New data released by the World Bank in June 2020 suggest that Chinese lending is over 25 percent of the debt stock in seven countries in Africa deemed to be at risk of, or already in, debt distress: Djibouti (57 percent), Angola (49 percent), Republic of Congo (45 percent), Cameroon (32 percent), Ethiopia (32 percent), Kenya (27 percent), and Zambia (26 percent). However, in another 12 countries, more than half of those at highest risk of debt distress, Chinese lending is relatively modest, making up less than fifteen percent of all debt. This data is helpful, but many questions remain as to the details of debt and its evolution.

RISING AFRICA AND RISKY AFRICA: ENTER CHINA

IN THE 1980s AND 1990s, MANY AFRICAN COUNTRIES went through a long struggle with economic crisis, reluctant reform, and mounting debt. Penalty charges imposed by Paris Club creditors and other bilateral lenders on debtors’ arrears added billions to...
debt woes. After the millennium, thirty-one low income African countries received substantial debt cancellation through the highly indebted poor countries (HIPC) initiative spearheaded by the Paris Club, the World Bank and the International Monetary Fund (IMF). Yet as their debts were eased, many countries began to borrow again to fill an annual gap in infrastructure finance estimated to be between US$ 68 and US$ 108 billion. As their traditional sources of credit, the Paris Club, had shifted their areas of concern away from infrastructure, countries turned to non-traditional financiers, including China.

As Figure 1 points out, Chinese lending took off in a period of rapid growth in Africa. In 2014, a year after the peak in non-Angolan Chinese lending commitments, the IMF predicted that sub-Saharan Africa would continue to grow at a rate of 5.5 percent. Yet already in a May 2014 interview, IMF Managing Director Christine Lagarde presciently warned that the “Africa rising” story could be at risk. “Governments should be attentive and they should be cautious about not overloading the countries with too much debt.” Oil prices fell dramatically from US$100/bbl in 2014 to only US$ 44/bbl in 2016. Copper prices showed a similar decline (see Figure 1).

In 2016, the African region’s growth rate slumped to 1.4 percent, the lowest rate since 1995. Although some countries continued to post strong economic growth, such as Senegal, Ethiopia, and Kenya, others struggled with political instability including civil war, or saw their economies contract with a fall in commodity prices. Still, as of 2019, before the COVID-19 crisis hit, analysts at Brookings argued that fears were overblown. Although some countries were facing difficulties, “an African sovereign debt crisis is not imminent.” Even with the economic recession caused by COVID-19, the picture remains nuanced. Countries dependent on tourism, or commodities with depressed demand, are more at risk than those without these income sources. Many countries are facing a liquidity crisis but not all are facing insolvency.

By 2017, the Paris Club accounted for only five percent of public and publicly guaranteed debt in sub-Saharan Africa (Table 1). Private lenders from wealthy countries filled a large part of this gap, responding to opportunities in a continent with high risks and high rewards. Over the past decade, more than fifteen African countries issued foreign currency sovereign bonds, many for the very first time. Eight African countries issued 30-year bonds in 2018. As Table 1 points out, in 2018, African governments owed US$ 117 billion to the bond market, 32 percent of public and publicly guaranteed debt.

Much of the rest of the gap was filled by Chinese lenders. According to the World Bank’s International Debt Statistics, in 2017, official bilateral credits from China accounted for 62 percent of bilateral official credits, or about 23 percent of all public and publicly guaranteed debt in sub-Saharan Africa. In 2018, for the 40 low income African countries, Chinese debt came to 60 percent of bilateral lending, and 17 percent of public and publicly guaranteed (PPG) debt in this subset of countries. Chinese commercial banks are also part of the picture, and would be accounted for in this data as non-official private creditors, even if they are owned by the state.
Our data

Overview of our data

Chinese financiers are not very transparent, and do not systematically provide data on the loans they offer to individual overseas borrowers. International media sources do sometimes report on loans from China to Africa, but these reports are often inaccurate. Many reported loans are based on the wish lists of African governments or vague memorandums of understanding (MoUs) signed between African and Chinese officials, and never end up being officially signed and disbursed.

To sift through the noise and collect accurate data on signed Chinese loan commitments to African governments or their SOEs, CARI deploys a highly trained, multilingual team of research assistants (RAs). CARI RAs are trained to follow a rigorous set of steps to triangulate and confirm the existence of officially signed loans using African, Chinese, and international sources. Most loans are not considered confirmed until our researchers find them included in African ministry of finance or central bank documents or reported by Chinese embassies in Africa. Furthermore, loans we have identified as signed are periodically re-checked, and loans for projects that do not enter disbursement are removed. Deskwork is supplemented with field research conducted by CARI fellows, and interviews with our contacts in Africa.

Our data on loan commitments should not be viewed as “debt”. Each loan takes an average of five years to disburse, and for large projects the disbursement time is longer. Some loans have already been repaid. It is not uncommon for outstanding debt to only reach 49 percent of total loan commitments between 2000 and 2018. Nigeria provides a good illustration. Between 2000 and 2018, Nigeria signed 16 loan contracts totaling US$ 6 billion with Chinese financiers. However, their outstanding debt to China as of 2018 was only US$ 2.5 billion. This is because Nigeria has repaid US$ 660 million, and another US$ 2.8 billion remains undisbursed. Most of the undisbursed debt is accounted for by the US$ 2.6 billion worth of loans signed in 2017 and 2018. As each loan takes around five years to be fully disbursed, Nigeria has yet to receive most of the funds from these loans.

Table 1: PPG Debt, sub-Saharan Africa 2018

<table>
<thead>
<tr>
<th>Publicly Guaranteed (PPG)</th>
<th>% of Total PPG Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Outstanding and Disbursed: Total US$ 493 billion</td>
<td></td>
</tr>
<tr>
<td>Public and publicly guaranteed (PPG): Total US$ 365 billion</td>
<td></td>
</tr>
<tr>
<td>Official Creditors: Total US$ 210 billion</td>
<td></td>
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<tr>
<td><strong>Multilateral: Total US$ 110 billion</strong></td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>66</td>
</tr>
<tr>
<td>Other Multilateral</td>
<td>44</td>
</tr>
<tr>
<td><strong>Bilateral: Total US$ 99 billion</strong></td>
<td></td>
</tr>
<tr>
<td>Paris Club*</td>
<td>17</td>
</tr>
<tr>
<td>China**</td>
<td>80</td>
</tr>
<tr>
<td>Private Creditors: Total US$ 155 billion</td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>117</td>
</tr>
<tr>
<td>Commercial Banks</td>
<td>38</td>
</tr>
<tr>
<td>Other Private</td>
<td>11</td>
</tr>
<tr>
<td><strong>Private - Nonguaranteed: Total US$ 128 billion</strong></td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>17</td>
</tr>
<tr>
<td>Commercial banks &amp; other</td>
<td>111</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund, 2020 International Debt Statistics and 2019 International Debt Statistics

*Paris Club estimate based on comments in 2019 International Debt Statistics, p. 11. "At the end of 2017 Paris Club creditors accounted for just 5 percent of the long-term public and publicly guaranteed external debt stock of countries in Sub-Saharan Africa...China...accounted for over 60 percent of the region's long-term debt owed to bilateral creditors in 2017 [about 17%]."

**According to the DSSI, China’s share of PPG debt for 40 low-income African borrowers was 22% in 2018. We use that percentage as our estimate for 2018.

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**According to the DSSI, China’s share of PPG debt for 40 low-income African borrowers was 22% in 2018. We use that percentage as our estimate for 2018.
Figure 1 shows our loan commitment data, with Angola separated from the rest. With US$ 43 billion, Angola makes up 29 percent of all Chinese loan commitments in Africa. Both the volume and the modalities of Chinese lending there are quite different from most of China’s other development partners on the continent.

The Shifting Landscape of Chinese Lenders

Although the Chinese government made its first official loan to an African country (Guinea) in 1960, Chinese banks are relatively new to the continent. Between 1994 and the present, Chinese lenders proliferated in Africa. Table 2 provides an overview of China’s main lenders, the date they provided their first loans in Africa, the number of loans they have committed to finance between 2000 and 2018, and the gross value of these loan commitments to African governments and their SOEs.

China Eximbank today counts clients in 45 African countries, and Africa accounts for a third of the bank’s overseas business.15 The average annual growth rate of China Eximbank’s Africa lending surpassed 40 percent between 2006 and 2018 (see Figure 3: Loans by Lender).16 China Development Bank has provided finance to over a dozen African governments. Loans from Chinese commercial banks are growing. The largest syndicated loan in our database is US$ 4.1 billion in support of the massive 2,170 mw Caculo Cabaca hydropower project in Angola. Here, Industrial and Commercial Bank of China (ICBC) brought together a number of China-based banks, including Bank of China’s Beijing branch, China Construction Bank’s Beijing Branch, China Minsheng Bank, Ping An Bank, and Bank of China’s Shanghai Pilot Trade Zone Branch.

Terms of Chinese Loans

Recently a paper published by the Center for Global Development analyzed the terms of lending by China and compared these terms with those from the World Bank.17 This research showed that the World Bank’s loans to poor countries come with 1.54 percent fixed interest rates, 10-year grace periods, and 40-year maturities. The Bank also offers market-based loans to countries that no longer qualify for the most concessional lending. These use the six-month LIBOR rate, plus 205 basis points (bp), and have maturities of 18 to 20 years.

Our data suggests that Chinese terms and interest rates vary considerably by lender, and type of project. China offers interest-free loans as one instrument in its foreign aid program, but these make up less than five percent of all Chinese loan commitments. Concessional loans are subsidized by the Chinese government from the foreign aid budget, while preferential export buyer’s credits are subsidized from other budget lines. In the first years of the millennium, China Eximbank’s concessional loans had interest rates around four percent, but over the past decade, interest rates for China Eximbank’s concessional

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<tbody>
<tr>
<td>Chinese Government</td>
<td>1960</td>
<td>212</td>
<td>3</td>
</tr>
<tr>
<td>China Eximbank</td>
<td>1995</td>
<td>589</td>
<td>82</td>
</tr>
<tr>
<td>Suppliers’ Credits from Chinese Firms</td>
<td>2000</td>
<td>61</td>
<td>9</td>
</tr>
<tr>
<td>Chinese Commercial Banks</td>
<td>2001</td>
<td>52</td>
<td>10</td>
</tr>
<tr>
<td>China Development Bank</td>
<td>2007</td>
<td>158</td>
<td>37</td>
</tr>
<tr>
<td>Syndicated Loans Involving Only Chinese Banks</td>
<td>2016</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>1,077</td>
<td></td>
<td>148</td>
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</tbody>
</table>

Note: Includes Chinese loans to African governments and their SOEs
Source: SAIS-CARI Data
earnings to secure infrastructure project loan finance.

Collateralized lending, or “resource-secured infrastructure finance,” is a form of project finance in which repayment is secured not through existing assets as in a mortgage (i.e. property) but through future receivables (i.e. future cocoa, tobacco, oil, copper, and other export revenues). While Chinese banks did not invent this project finance model, China Eximbank in particular has been an enthusiastic user of it in Africa. This is because reducing the risk of a loan lowers its cost, which enables borrowing governments to use more finance (and employ more Chinese construction firms, since, like all export credit agencies, China Eximbank’s lending is largely tied to the use of Chinese goods and services).

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. The dam is also secured by an off-take arrangement based on future electricity revenues paid by consumers. The cocoa security was arranged through a sales agreement between Genertec Corporation of China and Cocobod for up to 40,000 metric tons of cocoa beans annually for the first five years of the loan. The cocoa beans will be sold for foreign exchange at the prevailing market price, and the proceeds placed in an escrow account with China Eximbank. The cocoa security arrangement was scheduled to last for five years, and after this, loan repayment is done from the electricity sales. This off-take arrangement requires Bui Hydropower to have a power purchase agreement with the Electricity Company of Ghana: 85 percent of energy sales from Bui will be deposited into an escrow account to help repay the loan. In the first instance, Bui Dam revenues (in cedi) will reimburse Cocobod for the cocoa exports. In both cases of cocoa and electricity, excess funds in the account can be withdrawn by Ghana, or they can stay in the account and earn interest.

Whereas many banks and commodity traders have used commodity-secured loans in Africa, it is far less common to see

Collateralized Lending

ONE OF THE misunderstood features of Chinese overseas lending is the extent to which loans are secured by collateral. For example, a New York Times article in May 2020 contended that borrowers of Chinese loans “put up ports, mines and other crown jewels as collateral.” We have seen only one case, a Chinese-funded petroleum refinery in Chad, where a sovereign borrower put up property as collateral. We believe this statement is a misreading of the practice of collateralized lending or using future revenue

Figure 2: Loans by Chinese Lenders 2000-2018 (in US$ billions)

![Figure 2: Loans by Chinese Lenders 2000-2018 (in US$ billions)](image-url)
them used to lower risks for project finance in infrastructure construction. Yet even though we have many examples in our data, this lending mode is less widespread than many believe. Commodity-secured loans account for 25 percent of the loan commitments in our data. However, lending to Angola, much of which is secured by oil exports, makes up 75 percent of the export commodity-secured loans. This model has also been used in nine other countries, and this amounts to only six to 12 percent of the loan commitments in our data. In some cases (such as Nigeria or Ghana) only a handful of projects were financed this way. Chinese banks have used this model more extensively in the Republic of Congo, Democratic Republic of the Congo, Sudan, and Equatorial Guinea, where at least 57 projects were constructed with resource-secured financing.

We expect that, as with Ghana’s Bui Dam electricity off-take, other kinds of revenue securities that are not export-related exist. Kenya’s Standard Gauge Railway, for example, uses escrow accounts filled with revenues from the railway itself, and, if necessary, funds from the Railway Development levy, a tax of 1.5 percent imposed on all imports into Kenya, and collected by the Kenya Port Authority. In 2018, the Railway Development Levy would have provided US$ 261 million to supplement revenues earned by the railway. By mechanisms like these, low income countries have found revenue sources that add to their ability to finance expensive infrastructure projects.

As noted above, we found only one case in our data—a US$ 330 million preferential export buyer’s credit from China Eximbank that financed China National Petroleum Corporation’s joint venture oil refinery in Chad—where the loan was secured with the actual asset. Chad had provided a government guarantee but Sinosure, China’s export credit insurer, refused to insure the loan given the risk. CNPC arranged for Chad’s shares to be collateral for the loan. CNPC also used its own shares as collateral for its portion of the investment loan, a common practice in China.

DEVELOPMENT SUSTAINABILITY VERSUS DEBT SUSTAINABILITY

EAST ASIA’S DEVELOPMENT SUCCESS was based on debt financing. China’s own growth model has involved extensive public sector borrowing. Local governments in China have created numerous special purpose vehicles (LSPVs): companies established to access loan funding for infrastructure projects and real estate development. Yet across East Asia, including in China, external borrowing was fairly conservative during periods of rapid growth. In China, external borrowing never rose above 20 percent of gross domestic product (GDP).

Li Ruogu, the former head of China’s export credit agency, China Export Import Bank, argued that post-HIPC concerns about debt sustainability meant that low income borrowers were restrained from investing in projects that could provide the necessary infrastructure for their economic development. The World Bank and IMF, having lived through several decades of debt crisis, and implemented debt write-offs under the HIPC initiative, have been more wary about optimism on the sustainability of borrowing. The International Financial Institution’s (IFIs) Debt Sustainability Framework provided limits on borrowing for post-HIPC countries, and these limits have been the subject of intense negotiations with some countries that wanted to borrow at commercial rates from Chinese lenders.

In April 2019 China’s Ministry of Finance published China’s own Debt Sustainability Framework. In many ways, the framework is quite similar to the one used by the Washington-based IFIs. However, as Johanna Malm has pointed out, there are some important differences. For example, Malm notes, “the framework makes it clear that China does not see debt distress as an obstacle to continued borrowing.”

“[I]t should be noted that an assessment for a country as “high risk” of debt distress, or even “in debt distress”, does not automatically mean that debt is unsustainable in a forward-looking sense. In general, when a country is likely to meet its current and future repayment obligations, its [public and publicly guaranteed] external debt and overall public debt are sustainable.”

The crux of the Chinese argument is the belief that “Productive investment, while increasing debt ratios in the short run, can generate higher economic growth [...] leading to lower debt ratios over time” [emphasis added]. The concern of course is whether investment is truly productive.

CHINESE LENDING AND DEBT DISTRESS: WHAT DO THE NUMBERS SAY?

IN THIS SECTION WE USE EXAMPLES FROM our data, and information on Chinese lending contained in the World Bank’s monitoring of the COVID-19 Debt Service Suspension Initiative (DSSI), to present a picture of the Chinese contribution to debt in Africa. All figures refer to PPG. The DSSI data suggest that for the 40 low income African countries, debt to China adds up to US$
64 billion and accounts for 22 percent of the PPG debt stock in 2018, and an estimated 29 percent of debt service due in 2020. The outstanding debt to the World Bank is very close to this figure. Low income African countries owe the World Bank US$ 62 billion, but due to generous subsidies the World Bank is able to offer its clients, debt service is lower.

Figure 3 shows Chinese disbursed and outstanding debt as a percentage of gross national income (GNI), and as a percentage of all external debt (with vertical axis log scale). Countries in debt distress or at high risk of debt distress as of June 2020 are marked. Along the left axis, we show where Chinese debt lies as a percent of GNI. Debt sustainability is based on the country’s entire portfolio of debt and its terms, but this provides a quick snapshot of one important variable.

The ratio of debt to national income that can be sustained depends on a number of factors. In the European Union, for example, member countries have committed to keep debt below 60 percent of national income. The IMF’s debt sustainability analysis uses a ratio of 30 percent for countries with weak macroeconomic performance and management capacity but allows countries with stronger management to go up to 50 percent of GDP. In Figure 3, we can see that Chinese debt as a percent of income is below 10 percent for most African borrowers.

The exceptions are Angola, Djibouti, Republic of Congo, Mozambique, Ethiopia, and Zambia.

In the next section, we look at the level of Chinese debt in the individual countries that, before the COVID-19 pandemic, were judged to be at high risk of, or already in, debt distress. While the list of countries facing debt distress will undoubtedly grow as a result of COVID-19, we start with the 20 African countries rated by the World Bank and IMF as at “high” risk or “in debt distress” in the June 2020 DSSI list, and in other publications. Figure 4 shows those countries. In the case studies below, we add Angola, which concluded a program with the IMF in 2018, an act that signals a high level of debt risk, although there is no formal rating. We group these 22 countries into three categories, those with a small share of debt owed to China (less than 15 percent), those with a medium share (15 to 25 percent), and those with a high share (over 25 percent).

**Chinese Loans a Small Share (under 15%) of Debt Stock: 12 Debt-Distressed Countries**

In OVER HALF OF THE COUNTRIES IN, or at high risk of, debt-distress, China accounts for less than 15 percent of PPG debt and debt service is approximately in the same range (Appendix Table 1). Some of these countries have borrowed very little from China.

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![Figure 3: China’s Role in Africa’s Debt Problem](image)
Burundi: Saudi Arabia and India have both lent more to Burundi than China, whose debt comes to just two percent of the total. Almost all of Chinese lending went to telecoms projects.

Cape Verde: China held less than two percent of Cape Verde’s debt, having financed airport scanners for US$ 13 million and two e-government projects (US$ 30 million).

Chad: In Chad, a US$ 1.45 billion oil-secured loan from the Anglo-Swiss company Glencore meant that by the end of 2016, 85 percent of Chad’s oil exports (its primary source of revenue) were going to repay Glencore. Only seven percent of Chad’s debt is owed to China, financing a cement factory, Chad’s share of an oil refinery and power station built by China National Petroleum Corporation, and electricity transmission lines from the refinery to the capital. After the oil price crash in 2014-2015, Chad was having trouble paying three loans with upcoming maturities to China Eximbank, and in 2017 the outstanding debts on these loans were rescheduled.

Eritrea: China makes up 4 percent of the country’s debt stock. The loans were to support a telecom project, a thermal power plant, food storage, purchase of Chinese machinery, and a road.

The Gambia: As of 2018, China had made only one loan to The Gambia, for a telecoms project.

Ghana: The government of Ghana has a total external debt of US$ 19.4 billion. They owed US$ 1.86 billion to China (under 10 percent), while nearly half of the external debt is owed to bondholders and commercial banks, and a third to multilateral banks. Our data show US$ 3.7 billion in loan commitments between 2000 and 2018. Ghana’s largest Chinese-financed projects include several loans for the 2007 Bui Dam (US$ 673 million), and the 2013 Western Corridor gas processing plant (US$ 850 million). The latter loan had a 10-year term, so should be close to being repaid.

Mauritania: Saudi Arabia is the largest single creditor in Mauritania, where China holds less than 10 percent of debt. China built Mauritania’s Friendship Port in the 1980s as a foreign aid project. The largest project in Mauritania since 2000 has been an expansion of this port, for US$ 293 million.

São Tomé and Príncipe: The DSSI lists outstanding official bilateral debt to China as US$ 10 million. This is likely misreported by São Tomé and Príncipe. Our data records no lending to São Tomé and Príncipe from official Chinese bilateral
China-Africa Research Initiative

In Sierra Leone, Chinese lenders have financed 39
41
40
JULY 2020
The World Bank did not include data for South
37
th
35
21
CHINA-AFRICA RESEARCH INITIATIVE
creditor, with US$ 1.6 billion outstanding. The data released by
creditors are Italy, the United Arab Emirates, and the United
6According to the DSSI, Saudi Arabia is currently Sudan’s major
creditor, with US$ 1.6 billion outstanding. The data released by
the World Bank in June 2020 note that China accounts for only
eight percent of Sudan’s outstanding debt.6 While according to
our data, China has signed off on at least US$ 6.8 billion to
Sudan over the years, a portion of this debt has already been
repaid through oil shipments. After the loss of the oil-producing
South in 2012, China granted a delay of five years to Sudan’s debt
repayment.6

Sudan: In Sudan, which is also not eligible for the DSSI, China
is a less significant lender than many might assume. Paris Club
debt, including arrears, at US$ 20.6 billion is 37.7 percent of the
total, and non-Paris Club debt at US$ 20.2 billion, is 36.9 percent.6

Somalia: According to the DSSI, Chinese debt, at US$ 83.9 million,
is less than four percent of the total in Somalia, where the largest
creditors are Italy, the United Arab Emirates, and the United
States, all creditors to whom Somalia—a highly indebted poor
country that embarked on the HIPC debt relief process only in
March 2020—is in arrears. We have recorded no loans from China
to Somalia between 2000 and 2018. Since there is no debt service
scheduled for these Chinese loans, we believe the World Bank
records refer to Chinese debt from before 2000 that has gone into
arrears.

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South in 2012, China granted a delay of five years to Sudan’s debt
repayment.6

South Sudan: The World Bank did not include data for South
Sudan on its DSSI website (it is possible that the data for South
Sudan was combined with that for Sudan). However, the IMF
reported that as of the end of March 2019, South Sudan owed
China US$ 150 million for the Juba International Airport, out of
a total debt stock of US$ 1.196 billion, or 12.5 percent.6 Our data
shows two loans signed as of 2018, for the airport, and for an air
traffic system, for a total of US$ 407 million.

Chinese Loans a Medium Share (15 to 25 percent) of Debt Stock: 3 Debt Distressed Countries

In a second group, including Central African Republic,
Mozambique, and Zimbabwe, Chinese debt stock is from 15 to
25 percent of the total. It is important to note that in all three
countries, debt service due in 2020 rises considerably above 25
percent. These cases show the impact of higher interest rates for
Chinese loans compared with other funders.

Central African Republic: In the Central African Republic (CAR),
China accounted for 18 percent of the debt stock, but 31 percent
of debt service for 2020. The DSSI lists outstanding debt to China
as US$ 130 million. According to the IMF, CAR is in arrears to
Taiwan (we also see this in Liberia and Burkina Faso, which are
at only moderate risk of debt distress).49 These loans appear to
have been folded into the China figures, since our figures show
only US$ 71 million in Chinese loan commitments. Our data
shows several small loans to help make up budgetary shortfalls,
and two other projects (US$ 21 million for the Boali hydropower
project and a US$ 36 million for a telecoms project) for a total of
US$ 73 million in lending commitments.

Mozambique: The DSSI records show that Mozambique owed
China US$ 2 billion out of a total debt of US$ 11.4 billion (18
percent), but debt service to Chinese creditors was expected to
be 27 percent of all debt service for 2020. It is possible that
this debt service figure reflects debt reprofiling that was done
in 2017 and pushed some debt payments off to later dates. In
2017, Mozambique was in default on its external public debt,
and reached an agreement to reschedule its debts to China.
According to media reports, Mozambique was granted a grace
period on payments due on US$ 2.02 billion, although the
original maturities were maintained.44 Our data show signed
loan commitments of US$ 2.5 billion. Mozambique’s largest
loans from China have financed the Maputo-Catembe Bridge
(US$ 686 million), Beira to Machipanda EN6 road repair (287 km)
for US$ 416 million, and the 74 km Maputo ring road (US$ 300
million). Aside from one zero-interest foreign aid loan signed in
2018, there have been no new Chinese loans since the country
reprofiled its Chinese debt.

Zimbabwe: Although Zimbabwe is not eligible for the DSSI
because of its arrears to the World Bank and IMF, it is in debt
distress. Because of these arrears, Zimbabwe’s debt sustainability
analysis published in March 2020 noted that 77 percent of
Zimbabwe’s debt was owed to Paris Club and multilateral creditors like the World Bank, with “non-Paris Club lenders”, including China, making up 20 percent. However, the DSSI figure for Zimbabwe states that China accounts for 24.8 percent of Zimbabwe’s outstanding debt, around US$ 1.1 billion. It is not clear why this discrepancy exists.

Our database includes US$ 3 billion in Chinese loan commitments in Zimbabwe since 2000. The largest projects include US$ 998 million for the Hwange coal-fired power plant expansion, signed in 2017 and currently underway, and US$ 360 million for the Kariba South Bank hydropower project, and US$ 219 million for an upgrade to state-owned telecoms company NetOne. As in other countries, a significant portion of these loan commitments remain to be disbursed.

According to the DSSI, Zimbabwe was scheduled to repay Chinese lenders US$ 72 million in 2020, which would have been 54 percent of all debt service. Zimbabwe has defaulted on multiple loans to China Eximbank, and each time was granted extensions of the repayment period. A US$ 35 million loan for ZISCOSteel was granted maturity extensions in 2003, 2007, and 2010. Two loans totaling US$ 18 million for the SinoZimbabwe Cement Plant were granted maturity extensions and interest rate reductions in 2004, and a US$ 200 million buyer’s credit for agricultural machinery was granted a maturity extension in 2012.

Chinese Loans a Large Share (over 25 percent) of Debt Stock

In seven low income countries with significant debt problems, China now holds over 25 percent of all external debt, according to the DSSI figures: Angola, Cameroon, Republic of Congo, Djibouti, Ethiopia, Kenya, and Zambia.

Angola: With over US$ 19 billion in debt to China according to the DSSI, Angola is China’s largest borrower in Africa, and indeed, owes China the most among all the low-income countries in the DSSI. China makes up 49 percent of the country’s outstanding government debt. For 2020, debt service on Chinese loans is scheduled to account for 58 percent of all debt service due. Our database shows us over US$ 40 billion in loan commitments over the past 20 years. Many of these have been repaid with oil exports, and some have not yet been disbursed. Chinese lines of credit have financed over 100 projects in Angola, including the US$ 2.5 billion Kiamba Kiaxi new city with over 20,000 apartments, US$ 509 million for the Nzeto-Soyo road, and US$ 835 million for Soyo 1, Africa’s largest gas turbine power station. Angola also refinanced a number of loans that its state-owned oil company Sonangol owed to Chinese banks. Between 2010 and 2014, Sonangol signed US$ 10 billion worth of loans with CDB and ICBC. When the oil price crashed in 2015, Sonangol was having trouble paying them back. In late 2015, CDB extended a US$ 15 billion line of credit to Angola, US$ 10 billion of which Angola used to recapitalize Sonangol. Over the next two years Sonangol used some of this money to pre-pay debts to Chinese banks.

Cameroon: Cameroon has borrowed extensively from Chinese banks. Some of the largest loan commitments include Kribi port (US$ 948 million over two phases), Yaounde water supply project from the Sanaga river (US$ 678 million), and US$ 541 million for the 211 Mwh Memve’ele hydropower dam. We have data on the terms for 27 loans out of a total of 44 loans from China, all but two are at fixed interest rates, two percent or less. According to the World Bank’s DSSI data, China accounted for 32 percent of Cameroon’s public debt as of 2018 (US$ 3.2 billion), but 45 percent of all debt service estimated to be due in 2020. This is a function of the loan restructuring Cameroon agreed to in 2019. Cameroon’s debt to China was reprofiled so that only one third of the debt service due between 2019 and 2022 would have to be paid over those three years, with the other two thirds (US$ 253 million) reprofiled to be paid in following years within the existing maturity. Cameroon’s debt difficulties meant that disbursement of funds committed to existing projects slowed. As of late September 2019, China accounted for 28.5 percent of undisbursed external loans. Chinese banks could slow or pause disbursement if Cameroon was unable to finance its share (usually 15 percent) of a project, or unable to complete tasks like compensating landholders in the project area, a responsibility usually left with host governments.

Republic of the Congo: Chinese lending to the Republic of Congo accounts for 45 percent of the country’s external debt, and in 2020, 43 percent of debt service. The largest loans were for highways. Chinese loans have financed a new highway, National Route 1, linking Brazzaville with Pointe Noire on the coast (US$ 1.8 billion) and National Route 2 (US$ 537 million). In 2019, China Eximbank agreed to restructure US$ 1.6 billion of outstanding debt from loans signed by the ROC between 2010 and 2014, extending the maturities by 15 years and reducing the interest rates.

Djibouti: In Djibouti, where Chinese banks financed the Djibouti-Addis railway, a large water project, and
three port upgrade projects, China holds 57 percent of PPG debt at US$ 1.2 billion, according to the DSSI. Multilateral creditors, with US$ 600 million, hold 29 percent. Djibouti’s debt service due to China accounts for 58 percent of the total due in 2020. Negotiations between Djibouti and China Eximbank are ongoing regarding the restructuring of the US$ 490 million loan for Djibouti’s section of the Addis-Djibouti railway. In 2019, an MOU was signed to extend the maturity by 10 years and reduce the interest from LIBOR + 300 bps to LIBOR + 210 bps. The agreement has yet to be finalized.⁴⁷

Ethiopia: Our data suggest that Ethiopia has signed loan agreements with Chinese lenders of almost US$ 14 billion between 2000 and 2018. These loans have funded over 50 projects, the most significant being telecoms expansion (US$ 3 billion), wind farms (US$ 600 million), hydropower plants and associated transmission lines (US$ 2.3 billion), the Addis Ababa light rail system (US$ 475 million), the Addis-Djibouti railway (US$ 2.5 billion), and a number of sugar complexes including mills (US$ 1.7 billion). The DSSI data lists China as the single most significant creditor in Ethiopia, with outstanding debt of US$ 8.7 billion, 32 percent of all public debt. The World Bank is very close, with 31 percent of outstanding debt. Yet higher interest rates for Chinese loans mean that China makes up 42 percent of all debt service due in 2020. In 2018, China Eximbank granted a restructuring for the loan for the Ethiopian section of the Addis-Djibouti railway, extending the maturity by 20 years.⁴⁸

Kenya: The DSSI records that Chinese lending to Kenya makes up 27 percent (US$ 7.5 billion) of Kenya’s outstanding debt of US$ 27.8 billion. Large projects financed by Chinese lenders in Kenya include US$ 867 million for a number of geothermal wells at Olkaria, US$ 229 million for the Karimenu Dam Water Supply Project, US$ 156 million for the Nairobi southern bypass highway, and US$ 5.1 billion for two phases of the controversial Standard Gauge Railway between Mombasa and Malaba.⁴⁹ In Kenya, commercial interest rates for some large loans, including part of the Standard Gauge Railway, mean that in 2020, debt service on Chinese loans was scheduled to take up 38 percent of all debt service.

Zambia: Zambia has been hovering on the precipice of debt distress for several years, even though a joint IMF/World Bank debt sustainability analysis (DSA) published in August 2019 noted that at that point, Zambia was servicing its debt and had “remained current on all its debt obligations.”⁵⁰ According to the DSSI, as of 2018, PPG debt to China was less (US$ 2.8 billion) than to bondholders (US$ 3 billion), and Chinese lenders held about 26 percent of PPG debt in Zambia. The DSA recorded that Zambia’s public electricity utility ZESCO held an additional US$ 700 million in non-guaranteed debt, likely to be entirely from Chinese lenders.

These figures are quite a bit smaller than our CARI data on signed Chinese loan commitments (US$ 9.7 billion). Aside from repayments, the most obvious reason for this difference is the distinction between loan commitments and disbursements, as we noted above with the case of Nigeria. The DSA noted that Zambia had contracted US$ 9.7 billion of PPG loans that were expected to be disbursed between 2019 and 2024. A large portion of this is likely to be Chinese. For example, ZESCO signed off on US$ 5.6 billion in Chinese loan commitments for power projects just between 2016 and 2018. Because of Zambia’s debt problems and inability to contribute its side of some project costs (compensation for land acquisition, for example), disbursement on existing projects has been halting.

DISCUSSION

IN 2020, HOW DIFFERENT IS AFRICA’S debt crisis compared with the crisis that began in the late 1970s? The earlier crisis had its origins in global and domestic policy factors, and the balance between these differed country by country. There is no dispute about the two most important global shocks: the dramatic rise in oil prices caused by the Yom Kippur War (1974) and the Iran-Iraq War (1980) which hurt all oil importers, and the dramatic rise in global interest rates caused by the July 1981 decision of the US Federal Reserve to raise US interest rates to 22.36 percent.⁵¹ Developing countries that had borrowed at variable rates found their debts far more difficult to service, and capital fled from the south to the north.

When countries went into arrears, they faced steep penalties from Paris Club creditors. Domestic policy factors such as overvalued exchange rates, loss-making public companies, and expensive subsidies also played a role. In the late 1980s, the members of the Paris Club recognized the fact that dozens of low-income countries were essentially bankrupt. In low income sub-Saharan Africa, the external debt to GNI ratio rose from 49 percent to 104 percent between 1980 and 1987, considerably above today’s pre-COVID-19 levels. This recognition of insolvency slowly led to programs of bilateral and multilateral debt write-offs, culminating in the HIPC initiative in 1996.
In 2020, after decades of reform, most African countries are in far better economic shape than they were in the 1980s, although there are exceptions such as Zimbabwe. Global interest rates are at record low levels. In some countries such as South Sudan, the Central African Republic, Burundi, and Somalia, armed conflict and civil war hamper economic output and debt sustainability. Pre-COVID 19, the collapse of commodity prices was the chief factor driving debt distress in Angola, Chad, the Republic of Congo, Mauritania, and Sudan. This also played a role in Ghana and Zambia, but expansive spending around elections was an additional factor. Still, for most of the 21 countries in this analysis, debt problems are likely to be liquidity problems rather than reflections of insolvency.

Chinese lenders are now a significant part of the debt picture in Africa, but their role should not be overestimated. In over half of the low-income countries most at risk of, or already in, debt distress, Chinese lending is relatively small, with less than 15 percent of debt stock. That is to say, their debt problems are largely caused by lenders other than China.

In another 3 countries, borrowing from China appears to be between 15 and 25 percent of debt stock: Central African Republic (CAR), Mozambique, and Zimbabwe. Yet in CAR, some of the DSSI debt data is from Taiwan, which complicates analysis.

In just seven African countries, as of 2018, China contributed between 26 and 58 percent of PPG debt stock. These are the countries where Chinese lending is central to the African debt distress picture.

Debt service is another important variable. In two countries, Angola and Djibouti, more than 50 percent of debt service was owed to Chinese lenders in 2020. Yet even here, looking at averages creates a somewhat misleading picture. With Angola included, 29 percent of all debt service in the DSSI countries in Africa is due to China. With Angola excluded, only 18 percent of debt service is Chinese.54

The World Bank’s DSSI data is a gold mine of information for Chinese lending in low income countries and Angola. Our CARI database gives the details on each loan commitment made by Chinese lenders across Africa, including countries that are not part of the DSSI. These two resources should allow analysts to make a great leap forward in understanding the myths and realities of Chinese lending in risky markets in Africa. ★
## Appendix 1a: Chinese Lending and African Debt (all $ are in US$ millions)

<table>
<thead>
<tr>
<th>Country</th>
<th>Risk of external debt distress</th>
<th>CARI 2000-18 CN loan commitment</th>
<th>2018 Debt to China as % of loan commitment</th>
<th>China as % of debt by official bilateral lenders</th>
<th>Biggest official bilateral lender</th>
<th>2018 DSSI debt stock: China</th>
<th>China as % of PPG external debt</th>
<th>Debt to China as % of GNI</th>
<th>World Bank as % of PPG external debt</th>
<th>Bonds as % of PPG external debt</th>
<th>Debt service due 2020: China</th>
<th>China as % of debt service due 2020</th>
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</tr>
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<td>50%</td>
<td>63</td>
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</table>
### Appendix 1b: Chinese Lending and African Debt (all $ are in US$ millions) - continued

<table>
<thead>
<tr>
<th>Country</th>
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<th>CARI 2000-18 CN loan commitment</th>
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<th>World Bank as % of PPG external debt</th>
<th>Bonds as % of PPG external debt</th>
<th>Debt service due 2020: China</th>
<th>China as % of debt service due 2020</th>
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<td>5%</td>
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<td>5%</td>
<td>31%</td>
<td>0%</td>
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</table>
### Appendix 1c: Chinese Lending and African Debt (all $ are in US$ millions) - continued

<table>
<thead>
<tr>
<th>Country</th>
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<th>World Bank as % of PPG external debt</th>
<th>Bonds as % of PPG external debt</th>
<th>Debt service due 2020: China</th>
<th>China as % of debt service due 2020</th>
</tr>
</thead>
<tbody>
<tr>
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<td>76%</td>
<td>20%</td>
<td>Saudi Arabia</td>
<td>326</td>
<td>8%</td>
<td>6%</td>
<td>9%</td>
<td>0%</td>
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<td>8%</td>
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<td>82%</td>
<td>39%</td>
<td>China</td>
<td>2,012</td>
<td>18%</td>
<td>14%</td>
<td>26%</td>
<td>6%</td>
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<td>13%</td>
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<td>53%</td>
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<td>4%</td>
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<td>1%</td>
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<td>13</td>
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<td>10</td>
<td>4%</td>
<td>2%</td>
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<td>0%</td>
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<td>44%</td>
<td>China</td>
<td>1,440</td>
<td>12%</td>
<td>6%</td>
<td>18%</td>
<td>35%</td>
<td>72</td>
<td>10%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>High</td>
<td>229</td>
<td>21%</td>
<td>31%</td>
<td>China</td>
<td>48</td>
<td>3%</td>
<td>1%</td>
<td>19%</td>
<td>0%</td>
<td>5</td>
<td>7%</td>
</tr>
<tr>
<td>Somalia</td>
<td>In distress</td>
<td>0</td>
<td>NA</td>
<td>8%</td>
<td>United States</td>
<td>84</td>
<td>4%</td>
<td>2%</td>
<td>20%</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>South Sudan</td>
<td>In distress</td>
<td>407</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sudan</td>
<td>In distress</td>
<td>6,815</td>
<td>20%</td>
<td>18%</td>
<td>Saudi Arabia</td>
<td>1,330</td>
<td>8%</td>
<td>4%</td>
<td>8%</td>
<td>0%</td>
<td>102</td>
<td>17%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Low</td>
<td>2,043</td>
<td>36%</td>
<td>27%</td>
<td>China</td>
<td>734</td>
<td>6%</td>
<td>1%</td>
<td>52%</td>
<td>0%</td>
<td>155</td>
<td>22%</td>
</tr>
<tr>
<td>Togo</td>
<td>Moderate</td>
<td>674</td>
<td>75%</td>
<td>81%</td>
<td>China</td>
<td>506</td>
<td>34%</td>
<td>9%</td>
<td>4%</td>
<td>0%</td>
<td>37</td>
<td>36%</td>
</tr>
</tbody>
</table>
### Appendix 1d: Chinese Lending and African Debt (all $ are in US$ millions) - continued

<table>
<thead>
<tr>
<th>Country</th>
<th>Risk of external debt distress</th>
<th>CARI 2000-18 CN loan commitment</th>
<th>2018 Debt to China as % of loan commitment</th>
<th>China as % of debt by official bilateral lenders</th>
<th>Biggest official bilateral lender</th>
<th>2018 DSSI debt stock: China</th>
<th>China as % of PPG external debt</th>
<th>Debt to China as % of GNI</th>
<th>World Bank as % of PPG external debt</th>
<th>Bonds as % of PPG external debt</th>
<th>Debt service due 2020: China</th>
<th>China as % of debt service due 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>Low</td>
<td>2,862</td>
<td>68%</td>
<td>74%</td>
<td>China</td>
<td>1,946</td>
<td>24%</td>
<td>7%</td>
<td>39%</td>
<td>0%</td>
<td>137</td>
<td>42%</td>
</tr>
<tr>
<td>Zambia</td>
<td>High</td>
<td>9,703</td>
<td>29%</td>
<td>84%</td>
<td>China</td>
<td>2,808</td>
<td>26%</td>
<td>11%</td>
<td>9%</td>
<td>28%</td>
<td>316</td>
<td>27%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>In distress</td>
<td>2,962</td>
<td>37%</td>
<td>48%</td>
<td>China</td>
<td>1,100</td>
<td>25%</td>
<td>4%</td>
<td>20%</td>
<td>1%</td>
<td>72</td>
<td>54%</td>
</tr>
</tbody>
</table>
ENDNOTES


12. SAIS-CARI Loan Commitment Data


14. The Debt Management Office of Nigeria lists the amount of debt service paid on each loan in each year, separated into principal and interest payments. To calculate disbursement (as these amounts are not usually made public), we take advantage of SAIS-CARI’s data on interest rates. Using the interest rate, we calculate the amount outstanding on each individual loan from the interest payment made on that outstanding balance the following year: “Debt Service,” Debt Management Office Nigeria, https://www.dmo.gov.ng/debt-profile/external-debts/debt-service

16. Ibid.


39. IMF Africa Department, “Republic of South Sudan: 2019 Article IV Consultation,” International Monetary Fund, June 2019, https://www.imf.org/-/media/Files/Publications/CR/2019/sSSDEA2019001.ashx. The report also notes that South Sudan owed estimated short-term debts of US$ 338 million to oil companies for oil advances. These are likely to be Chinese companies, which dominate the oil sector, but could also be from oil traders. Trafigura has provided oil advances to South Sudan in the past. If these oil advances were all to be from Chinese firms, the Chinese share of South Sudan’s debt would rise to 41 percent.


42. In 2019, the IMF’s Debt Sustainability Analysis for Zimbabwe’s listed the country’s total external debt (including arrears) as US$ 8.7 billion, with the Paris Club making up US$ 3.5 billion and multilateral creditors US$ 3.9 billion (78 percent). The IMF did not report on Chinese debt, but “non-Paris Club” debt was US$ 1.7 billion, or 20 percent. IMF Africa Department, “Zimbabwe: 2019 Article IV Consultation,” International Monetary Fund, Country Report No. 20/82, March 2020, https://www.imf.org/-/media/Files/Publications/CR/2020/English/1ZWEEA2020001.ashx.

43. On the Memve’ele Dam, see Yunnan Chen and David G. Landry, “Capturing the Rains: A Comparative Study of Chinese Involvement


45. Ibid.


49. Acker, Brautigam, and Huang, “Debt Relief.”


52. Because of the lack of data, we do not exclude debt service to Angola’s other lenders from total debt service.

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