



## **Database Overviews and Objectives**

The Global Development Policy (GDP) Center at Boston University is a University-wide center in partnership with the Frederick S. Pardee School of Global Studies. The GDP Center's mission is to advance policy-oriented research for financial stability, human well-being, and environmental sustainability.

The GDP Center currently maintains five databases: the China-Latin America Finance Database (CLAF), the China's Global Energy Finance Database (CGEF), the China's Overseas Development Finance Database (CODF), the Chinese Loans to Africa Database (CLA), and the China's Global Power Database (CGP).

The <u>China-Latin America Finance Database</u> includes loans from China's policy banks to Latin American and Caribbean governments and state-owned enterprises.

The <u>China's Global Energy Finance Database</u> is an interactive data project that exhibits financing for global energy projects by China's policy banks.

The <u>China's Overseas Development Finance Database</u> is a geolocated record of Chinese overseas development finance from China's policy banks.

The <u>Chinese Loans to Africa Database</u> covers Chinese lending to African governments and their state-owned enterprises from 2000 onwards. The CLA database was created by SAIS-CARI and transferred to the GDP Center in 2021.

The <u>China's Global Power Database</u> records all power generation projects around the world involving Chinese foreign direct investment (FDI) and policy bank finance.

#### Mission Statement

Our goal for these databases is to provide transparent information to aid research, education, policymaking, and accountability with regards to China's overseas development finance and projects around the world. This methodology note explains how GDP Center experts and our partners created these databases, and how the databases are updated and maintained. These databases are open knowledge products and we welcome additions and corrections.

## **Database Scopes**

**Table 1: Database Basic Information and Scope** 

	First Published	Time Period Covered	Updates	Geographi- cal Scope	Observation Type	Financial Scope
CLAF	2012	2005-2019	Annual	Latin America, Caribbean	Loan	Policy banks
CGEF	2018	2000-2019	Annual	Global	Loan	Policy banks
CODF	2020	2008-2019	Annual	Global	Loan	Policy banks
CLA	2007	2000-2019	Annual	Africa	Loan	Policy banks, other loan types (pre-2019)
CGP	2020	2000-2033	Every 2 years	Global	Power Plant	Policy banks, FDI

Source: Boston University Global Development Policy Center, 2021.

#### **Definitions**

#### POLICY BANKS AND DEVELOPMENT FINANCE

The China Development Bank (CDB) and the Export Import Bank of China (CHEXIM) are two of the three "policy banks" (政策性银行) in China. We confine the range of "development finance (开发性金融)" to the two policy banks CDB and CHEXIM due to their engagement in overseas investments. The third policy bank, Agricultural Development Bank of China (ADBC), is not included because it does not provide overseas financing at this point.

A policy bank is defined as a financial institution that is (1) established and guaranteed by the government; (2) has exclusive financial support from the state; (3) bears the responsibility of implementing economic and financial policy (贯彻落实国家经济金融方针政策).

The China Development Bank (CDB) was originally defined as a policy financial institution.<sup>1</sup> The bank is under direct jurisdiction of the State Council, and the Governor of CDB is a cabinet minister-level official. The bank was incorporated as the China Development Bank Corporation and officially classified as a development financial institution in December 2008. The CDB also functions similarly to an export or overseas investment credit agency as a result of its active involvement in supporting Chinese firms in China's overseas trade and investment finance.<sup>2</sup>

CHEXIM is a specialized export credit agency dedicated to supporting exports and investments for Chinese companies. Before 2005, the bank was China's only major overseas capital provider in energy projects and equipment exports. The bank also dedicates a large proportion of its credit operations to non-concessional loans.<sup>3</sup>

Common borrowers of CDB and CHEXIM financing in the databases include:

- Recipient country governments. CHEXIM will only grant one of its two types of "preferential loans"/两优贷款 to sovereign institutions (such as ministries of finance or central banks) or financial institutions appointed and guaranteed by the sovereign government.
- State-Owned Enterprises (SOEs) of the recipient country. In these cases, companies sign contracts directly with Chinese banks.
- Joint investors, which occasionally includes Chinese companies.

#### LOAN TYPES

Common types of financing from the two policy banks include:

 Export buyer's credit: Non-concessional loans to assist recipient countries in purchasing products and services from Chinese firms.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> We define CDB as a policy bank based on its function, although in recent years it has been designated as a commercial bank by the Chinese government.

<sup>&</sup>lt;sup>2</sup> China Development Bank, CDB Financial Knowledge Material 2017. <a href="http://www.cdb.com.cn/shzr/jjzsjwj/khtsyw/201709/">http://www.cdb.com.cn/shzr/jjzsjwj/khtsyw/201709/</a> P020170904630084158376.Pdf

 $<sup>^3</sup>$  Chinca, Introduction to two preferential loans, the Export-Import Bank of China.  $\frac{\text{http://www.chinca.org/cms/html/files/2013-12/16/20131216102948872930302.pdf}$ 

<sup>&</sup>lt;sup>4</sup> The Export-Import Bank of China, Export buyer's credit. <a href="http://www.eximbank.gov.cn/tm/Codetails/index.aspx?nodeid=31&page=ContentPage&contentid=13983">http://www.cdb.com.cn/cpfw/gjw/dkrz\_434/201602/t20160219\_2641.html</a>

- Non-concessional loans: A loan will be considered non-concessional if it is for a "self-running business,"(自营业务)<sup>5</sup>, interest rates are comparable to the market rate, or it is specified as a commercial loan/商业贷款
- Concessional loans/援外优惠贷款: A concessional loan, one of the two types of preferential loans, is often considered as official development assistance. Intergovernmental agreements are required. The main characteristics of these loans are fixed interest rates (usually 2-3%) and long-term maturity (15-20 years). The terms of repayment are divided into a grace period (where the recipient only pays interest) and repayment period (where the recipient pays every half-year). Concessional loans are distributed in RMB and are now regulated by the China International Development Cooperation Agency.
- Preferential export buyer's credit/优惠出口买方信贷: The other type of preferential loan, these loans are the result of China's reforms to foreign assistance in the 1990s. They function similarly to export buyer's credit, but the Chinese government provides subsidies to lower the interest rate to a fixed, lower level. An intergovernmental agreement is not required. Preferential export buyer's credit is distributed in USD and is regulated by the International Cooperation Department and Department of Finance.<sup>8</sup>

The main difference between CDB and CHEXIM in their overseas operations is that only CHEXIM is authorized to issue concessional loans. Even when no Chinese company is contracted, both banks may be involved in project finance.

When collecting policy bank and development finance information, GDP Center databases do not consider umbrella framework agreements as valid loan records. Unless specific projects are mentioned and evidence supports that the projects are in motion, statements pledging funds to general sectors are not recorded as development finance in our databases. The following types of economic cooperation involving CDB and CHEXIM are not recorded, even when covered by media:

- Memorandums of Understanding (MoU), which are not considered confirmed loans.
- Financial agreements with other banks.
- Lines of credit, which are not loans by themselves.
- Proposed projects that have not met financial closure.
- · Loans to projects that have been cancelled.

<sup>&</sup>lt;sup>5</sup> The Export-Import Bank of China, Self-running business. <a href="http://www.eximbank.gov.cn/tm/Fm2/index">http://www.eximbank.gov.cn/tm/Fm2/index</a> 1168.html; China Development Bank, Loan financing. <a href="http://www.cdb.com.cn/cpfw/gjyw/zytz\_435/">http://www.cdb.com.cn/cpfw/gjyw/zytz\_435/</a>

<sup>&</sup>lt;sup>6</sup> The Export-Import Bank of China, "two preferential" loans. <a href="http://www.eximbank.gov.cn/tm/Codetails/index.aspx?nodeid=33&page=ContentPage&contentid=13986">http://www.eximbank.gov.cn/tm/Codetails/index.aspx?nodeid=33&page=ContentPage&contentid=13986</a>

<sup>&</sup>lt;sup>7</sup> Chinca, Introduction to two preferential loans, the Export-Import Bank of China. <a href="http://www.chinca.org/cms/html/files/2013-12/16/20131216102948872930302.pdf">http://www.chinca.org/cms/html/files/2013-12/16/20131216102948872930302.pdf</a>. Note the government regulatory body of concessional loans is updated.

The Export-Import Bank of China, Export buyer's credit. <a href="http://www.eximbank.gov.cn/tm/Codetails/index.aspx?nodeid=31&page=ContentPage&contentid=13983">http://www.cdb.com.cn/cpfw/giyw/dkrz\_434/201602/t20160219\_2641.html</a>

<sup>9</sup> Deborah Brautigam, Jyhjong Hwang, China-Africa Loan Database Research Guidebook. https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/58ac6353f7e0ab024bcc665c/1487692628411/guidebook+draft+v.26.pdf

<sup>&</sup>lt;sup>10</sup> In rare cases, multiple projects are recorded in one report (with relatively high credibility, such as Chinese embassy). However, the projects are not widely covered. In such cases, these projects count as one entry in the database as there is no better way to separate them.

- Loans provided by other banks that are falsely reported as CDB or CHEXIM. These records will be deleted if there is further evidence indicating that these banks are not involved.
- Grants and technical assistance, which are unlikely to be issued by CDB and CHEXIM.

GDP Center does internally track co-financing arrangements between CDB and/or CHEXIM and other financial institutions. CLAF, CGEF, and CODF note known co-financing arrangements and, when data is available, the share of the total amount associated with development bank finance. Otherwise, we use the total loan amount. In rare cases, the CDB and CHEXIM grant loans to the same project separately. If these loans are covered in different news reports, we record them as separate entries, as the loans may finance different phases of a larger project. If a loan is found to include multiple phases of distribution, the data manager will either add a note in the previous entry regarding the installment, or revise the new loan and previous one as two different loans. In most cases, the percentage of contribution is not revealed. Loans are not assumed to be evenly supported by co-financiers.

## **Description of Database Variable Entries**

The following tables describe the information displayed in each database's interactive website.

**Table 2: Variables Included in Each Database** 

Category	Variable	CLAF	CGEF	CODF	CLA	CGP
Basic Information	Date/Year Year of Commission	V	V	V	$\overline{\mathbf{A}}$	$\overline{\mathbf{V}}$
	Type Sector	V		$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	
A	Status Region					
Geographic Information	Country BRI Country	✓	<b>∀</b>	V	V	
エ	Area			$\overline{\mathbf{V}}$		
Financial Information	Borrower Lender Amount	<b>∀</b>	<b>∀</b>	<b>∀</b>	abla	<b>∀</b>
	Deal Type					$\overline{\mathbf{V}}$
Energy and Environmental	Energy Source Energy Subsector		<b>∀</b>			
Information	Capacity CO <sub>2</sub> Emissions					<b>∀</b>
	Technology Sensitive Territory Overlap					V

Source: Boston University Global Development Policy Center, 2021.

**Table 3: Variable Descriptions** 

Variable	Description				
Date/Year	The date/year the loan contract is confirmed to be signed. In cases where reports of a certain project only include information that the project is "to be financed by certain banks," the date of the project contract will be verified in a later iteration. If there is evidence that the project has already been recorded and has already been implemented, we do not add a new entry. If the project has already been recorded but has not started, we revise the date to match the new event.				
Year of Commission	Year plant entered or is scheduled for commission				
Туре	The type of project (energy, infrastructure, mining, other)				
Sector	The sector of the project (government, transport, agriculture, power, multi-sector, etc.)				
Status	Project status (operational or under construction)				
Region	The region where the project takes place				
Country	The commonly used name of the recipient country.				
BRI Country	As a relatively new proposal of regional economic cooperation, the BRI is not a defined group of countries with clear membership. As a result, the list of BRI countries may vary as some researchers extend the official list to countries that are interested in BRI or participate in trade with other BRI countries. The CGEF updates the list of BRI countries according to the latest reporting of countries that have signed the BRI Cooperation MOUs with China. <sup>11</sup>				
Area	The area encompassed by the associated project, in square kilometers				
Borrower	The primary recipient of loans. Concessional loans are always granted to governmental entities of the recipient country, but other types of loans can be issued to companies. In rare cases, the loan is granted to Chinese companies. If the loan is granted to an unspecified agency, the borrower is recorded as "government."				
Lender	The provider of loans. As we only track loans from two banks, the lender will always be in one of the three categories: CDB, CHEXIM and CDB-CHEXIM cofinanced. Project descriptions may contain information on other involved financial institutions.				
Amount	The loan amount in millions (USD) at the current value of the contract, regardless of periods of distribution. In some cases, the loan is transacted in foreign currency, or RMB, and is converted using the annual average exchange rate of the respective year of the loans.				
Deal Type	The type of financial arrangement: FDI (M&A, greenfield investment), policy bank finance, or involves both FDI and policy banks				
Energy Source	The primary energy source. This is usually specified in exploration projects and power generation projects. Transmission projects with a specified source, such as transmission lines from a dam, are recorded accordingly. Electricity distribution projects such as power grids that have no specified energy sources are listed as "unspecified electricity."				
Energy Subsector	The type of energy sector activity. Currently, this is generally divided into four categories: exploration and extraction; power generation; transmission and distribution; and multipurpose. The first three of these categories are the commonly used sub-sectors in the energy supply sector. Transport-related facilities for oil and gas are categorized in the transmission sector. There is also currently one entry classified as "energy efficiency," where the trade of energy saving equipment is involved. If a project cannot be classified in these categories, a new category will be used.				

The list of BRI countries grows over time, and our database will adjust this annually according to the list on the official BRI website: <a href="https://eng.yidaiyilu.gov.cn/info/iList.jsp?cat\_id=10076&cur\_page=1">https://eng.yidaiyilu.gov.cn/info/iList.jsp?cat\_id=10076&cur\_page=1</a>.

Variable	Description
Capacity	Gross generating capacity of all units (MW) for the power plant with Chinese capital participation. If the capacity of a pipeline or oil/gas field is recorded, it is recorded using the unit of measurement of the source.
CO2 Emissions	For every fossil-based power project, we calculate its expected annual carbon dioxide emissions in kilotons. The estimation approach and original data can be found in the CGP Methodology Note. $^{12}$
Technology	Primary fuel (coal, gas, solar, wind, hydropower, nuclear, biomass)
Sensitive Territory Overlap	Based on spatial mapping, whether or not the project overlaps with indigenous peoples' lands, critical habitats, and/or national protected areas <sup>13</sup>

Source: Boston University Global Development Policy Center, 2021.

## **Data Collection Methodologies**

## **Development Finance Data Sources**

## MANUAL DATA COLLECTION (CLAF, CGEF, PRE-2020)

The major sources of data in the GDP Center databases are news reports, official declarations of contracts, and other verified official and non-official documents. The major source of data collection is web searches.

#### Keywords include:

- China Development Bank (CDB), China Export-Import Bank (CHEXIM), and their alternate spellings, such as Export-Import Bank of China.
- Country names, especially major economic partners of China.
- Names of long-term clients of the banks, mostly Chinese state-owned companies.
- Energy Sources. Exploration projects from the two banks include fossil fuels (coal, oil, gas/ LNG). All types of power generation can be supported by the two policy banks; however, in practice, the most frequently supported types of power plants are coal-fired and hydroelectric. Transmission projects might involve electricity from unspecified generation sources.
- Words such as "loan", "credit" and "finance". While the GDP Center databases do not record unspecified loans, proposed loans or MOUs, these reports are often included in the search results and must be manually identified.

There are four main sources of data collection: (1) the official websites of CDB, CHEXIM and Ministry of Commerce of China (MOFCOM); (2) online lists of Chinese investment or energy projects in certain recipient countries, which are checked by entry to inspect the involvement of CDB or CHEXIM; (3) daily collection of news reports involving CDB or CHEXIM; (4) interviews and personal verification.

https://www.bu.edu/gdp/files/2020/10/CGP-Method-Note\_English.pdf

<sup>&</sup>lt;sup>13</sup> For detailed definitions of these layers, see the paper associated with the CODF: Ray, R., Gallagher, K.P., Kring, W., Pitts, J, and Simmons, B. 2021. Geolocated dataset of Chinese overseas development finance. Nature Scientific Data. Available at <a href="https://osf.io/gfwhj/?view\_only=49a5f67a97ff4996812cc68612cc5cff">https://osf.io/gfwhj/?view\_only=49a5f67a97ff4996812cc68612cc5cff</a>.

#### WEB SCRAPING (CODF; CLAF, CGEF, AND CLA POST-2020)

In order to algorithmically collect data, news aggregators and historical news services typically provide an Application Programming Interface (API) to facilitate programmatic access. This allows many thousands of individual searches (e.g. "China Development Bank loan" in "English" for "August-1-2015" yielding 50 results) to be performed by an algorithm. An algorithm collecting this data may take several hours to days to collect the entire corpus of search results for complex projects but will surpass a manual approach, which would take significantly longer and may introduce human errors.

We use two main data sources for the web scrape. The first, Azure Cognitive Webservice is provided by Microsoft and has excellent coverage and is accessed by an API. One weakness of this API is the coverage, which is strongest around English articles. To supplement this, we utilize the GDELT Project, which has much greater coverage, especially for non-English languages, but yields significantly higher false positive matches. These false positives must be vetted manually, so a primary reliance on this data source would be untenable.

In this step, we utilize the following search terms:

- "China" or "Chinese" and
- "Development Bank," "CDB," "Export-Import," "Export Import," "Exlm," "Ex-Im," "Ex Im," or "Eximbank" and
- The name of at least one borrowing country, in English or in other languages commonly spoken in each, in noun or adjectival form (for example "Iceland," "Ísland," "Icelandic," or "Íslendingar" for Iceland; or "Hungary," "Magyarország," "Hungarian," or "Magyar," for Hungary). We also include non-Roman characters, when appropriate for a country's official language(s). For example, Bangladesh is included through the search terms: Bangladesh, Bangladeshi, वांश्लांपत्यं, वांश्लांपत्यों. For languages that assign genders to adjectives depending on the gender of the noun they are describing, we include both masculine and feminine versions of the adjective. For example, Brazil is included through the search terms: Brazil, Brazilian, Brasil, Brasileiro, Brasileira.

After initial record collection, additional algorithms reduce the data by filtering to remove duplicates, poor news sources, and to remove articles which did not mention the key terms above in close proximity with one another. These records are then manually scanned for relevancy and further reduced. Then, researchers manually check and read each of the remaining records against existing records already included in our databases, resolving any conflicts in project attributes. Where conflicts arise between verification sources, we give government sources top priority, followed by academic sources, civil society sources, and private press sources.

#### **DOUBLE VERIFICATION**

Regardless of whether data was manually collected or initially web scraped, we only publish data in our databases that can be verified in both China and the host country, or in interviews and consultations with the policy banks and host countries. The GDP Center only records projects if confirmed by one Chinese source and one external report, either in English or in the host country's local language, indicating a loan signed by either CDB or CHEXIM. This is unless there is confirmation from a direct stakeholder. If a report can confirm the project, but cannot confirm that CDB or CHEXIM provided a loan, it won't be recorded. In the case that a project is officially cancelled, the entry is deleted.

We include the following domains for China-based verification (in no particular order): (1) .gov.cn; (2) cdb.com.cn; (3) Chinese embassies to foreign countries; (4) xinhuanet.com; (5) en.people.cn; (6) cgtn.com; (7) chinaplus.cri.cn; (8) chinanews.com; (9) cmw.cn; (10) chinadaily.com.cn. The level of credibility of Chinese sources is generally ranked as follows: (1) Official websites of CDB, CHEXIM, and MOFCOM; (2) Websites of local embassies and involved companies; (3) China's official media such as Xinhua News Agency; (4) Academic journals (which usually use the above sources for evidence, but sometimes use interviews and other exclusive information); (5) Open reports from industrial associations, such as the China Electricity Council; (6) Commercial media (which usually forward important announcements from the above sources); (7) Other. News released on forums and blogs is considered as the least reliable source.

The level of credibility of non-Chinese sources is ranked as: (1) Official websites of borrower ministries and embassies; (2) Official websites of recipients and involved companies; (3) SEC filings, IMF Article IV consultations; (4) Surveying agencies and organizations with their own data; (5) Mainstream media; (6) Open source database and academic research (which usually uses the above sources for evidence) or NGOs; (7) Other: News reports that only appear in online forums without further evidence are taken as invalid. If the only evidence of a project is from a governmental source or global institution (such as the World Bank), we include the project but only if details of the project are provided.

## Other Loan Data Collection (CLA only, pre-2019)

The CLA database, for projects tracked prior to 2019, collected data on all Chinese mainland loans to Africa, beyond just the two policy banks. These loan sources include the Chinese Ministry of Commerce, Chinese private/commercial banks, Chinese state-owned enterprises SOEs) or private businesses providing suppliers credits or investment loan financing, and the People's Bank of China. For a full description of the SAIS-CARI methodology, please see the China-Africa Loans Database Research Guidebook.<sup>14</sup>

## **Foreign Direct Investment Data Collection (CGP only)**

The Global China Initiative undertakes a three step process to identify Chinese foreign direct investment in the power sector using a variety online databases and public reports, some which are propriety to the GDP Center's GCI. First, we build upon existing databases to identify an aggregate list of potential data entries for our master dataset. We further corroborate this information and fill missing gaps through a unique algorithmic approach that we apply to the WEPP database. The following details the three step process that we pursue to generate our unique database.

- 1) Generation of company list. For each country of our interest (China in the case of CGP), we first generate a list of power companies that may invest globally by surveying a wide variety of online databases and public reports. Four online databases are intensively utilized, including FDiMarket (2017), Dealogic (2017), Coal Plant Tracker (2017), and Global Coal Exit List (2017). Combining these sources, we create an initial list of companies that we consider to be potential investors in foreign power markets. Detailed lists of companies can be found in the appendix. We acknowledge that there could be more missing companies, especially small to medium-sized private companies.
- 2) Direct matching with S&P WEPP database. After compiling the list of firms that invest globally in the power sector, we then match the names on our company list with companies listed in the

 $<sup>\</sup>frac{14}{\text{https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/5efd04572cbaa4329d32be1e/159364002}}{6011/\text{SAIS-CARI+Research+Guidebook+2020.07.01.pdf}}$ 

S&P WEPP database. We use a simple matching algorithm that searches the S&P WEPP database for names of firms in our company list and variations thereof. For every company, we generate one to three keywords that are representative of all possible names that WEPP uses for the company. We tag power plants with the name of a holding company when at least one of the keywords are found in the WEPP database indicating it is the original owner. We then put all of the power plants obtained via this matching process together into a new list. Examples of keywords are included in the appendix. It should be noted that the coverage of renewable power projects in WEPP is much less comprehensive than non-renewable power projects. Therefore, such a top-down approach based on the WEPP database could likely under-estimate cross-border investment in the global renewable power sector.

**3) Project status verification.** A power plant project can take as long as a decade from its announcement to the day it starts operating. Many announced projects end up canceled or delayed and an incorrect recording of foreign outward investment could wrongly include these "zombie deals." In this database, we rely on the project status information provided by WEPP, which records power plants as in operation, under construction, under planning, deferred, canceled or retired. We only include projects that are in operation, under construction, or under planning as valid investments. Investments at other project stages are excluded to avoid zombie deals. In addition, we also validate every investment by Internet searches to avoid false matches (see Double Verification description above). Website links are included in the database. Since every investment is traced down to the power plant level and is given a unique project ID, double counting is avoided.

### **Update Schedule**

Data updates are published with a one-year time lag. For example, for an update published in 2021, data will be current through 2020. Data collection for the databases occurs at the beginning of the calendar year, followed by data verification. During this time, new projects are added, dates of postponed projects are updated, repetitive and cancelled entries are deleted, and other considered revisions are made. Generally, databases are updated with the previous year's data by February or March.

## **FAQs**

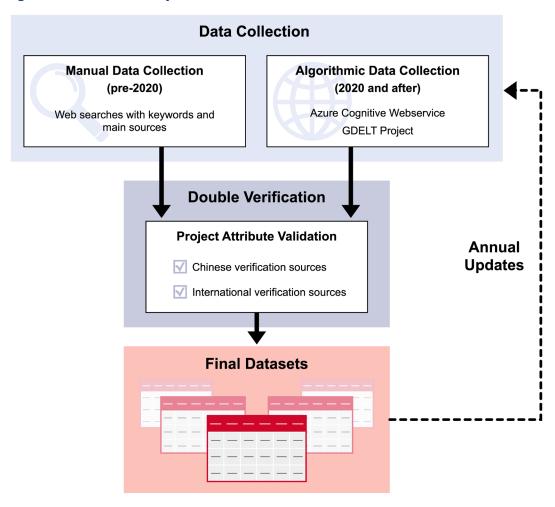
#### How do I download the data?

Excel files for each database can be downloaded by request on their respective interactive websites, or through the hyperlinks below:

- CLAF Database
- CGEF Database
- <u>CODF Database</u> (see also Open Science Foundation <u>repository</u>)
- CLA Database
- CGP Database

Please credit our databases (see suggested citations below) and keep us updated on how you use the data.

**Figure 1: Database Assembly Schematic** 



Source: Boston University Global Development Policy Center, 2021.

#### How can I submit a suggestion or update?

We welcome suggestions and updates from contributors, and especially rely on the community of experts with regional expertise. If you would like to submit suggestions on methodology, please email <a href="mailto:gdp@bu.edu">gdp@bu.edu</a>. If you would like to bring a specific loan or project to our attention, please fill out <a href="mailto:this form">this form</a>.

# There are other databases that track China's overseas finance and/or projects. How do the GDP Center databases compare?

A concerted global effort is needed to build transparent knowledge and understanding of China's overseas involvement and the Belt and Road Initiative. The GDP Center focuses on making all of our information open source, and double-verifying a specific scope of Chinese overseas involvement, namely development finance, and some other types of finance in certain databases (pre-2020 CLA; CGP). We do not track Chinese commercial bank loans.

# Does your double verification methodology lead to systematic undercounting of China's overseas finance?

Given that deals are frequently announced and later canceled, our double verification methodology ensures that we do not include such canceled projects. There is often a delay between the announcement and initiation of a project. In our annual updates, we add confirmed loans and projects from prior years when we find and verify updated information, such as the project being completed.

### How do you handle lines of credit in your databases?

We note when a line of credit is initially extended or committed to projects within the scope of the databases, but we do not note every instance that the line of credit is used or drawn upon. We adjust data on the line of credit if we later find and verify that it was never used, partially used, or extended.

## How are you going to improve your databases in the future?

We have an ongoing list of methodological updates and tasks for our databases. These tasks include harmonizing variable names across databases, improving our characterization of co-financing arrangements, and honing our web scraping methodology. This methodology note will be regularly updated.

## **Suggested Database Citations**

China Africa Research Initiative and Boston University Global Development Policy Center. 2021. Chinese Loans to Africa Database, Version 2.0. Retrieved from <a href="https://chinaafricaloandata.bu.edu/">https://chinaafricaloandata.bu.edu/</a>.

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