README

Data Package for AidData's Geocoded Global Chinese Official Finance Dataset (Version 1.0.1)

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Official Citation

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AidData Research and Evaluation Unit. 2017. Geocoding Methodology, Version 2.0. Williamsburg, VA: AidData at William & Mary. https://www.aiddata.org/publications/geocoding-methodology-version-2-0

*Please note: Both works count as the official citation for this dataset.

Geocoded Data Coverage

Years: 2000 - 2014

Donors: 1

Total Projects: 3485 Geocoded Projects: 3485

Locations: 6190

Total Disbursements: NA

Total Commitments: \$273,611,118,916.00

Geocoded Disbursements: NA

Geocoded Commitments: \$273,611,118,916.00

Five "Quick Start" Tips

- 1. Use the file, **oda-like_flows.csv**, to restrict your search to only "aid" projects in the strictest sense of the term.
- 2. Use the file, **oof-like_flows.csv**, to restrict your search to projects that do *not* qualify as "aid" in the strictest sense of the term.

- 3. The file **all_flow_classes.csv** contains all Official Finance projects, including those that do qualify as "aid" and those that do not.
- 4. The column "even_split_commitments" contains an estimate of the monetary commitment that is allocable to each location of a project.
- 5. The column "project_total_commitments" contains the commitment amount for the entire project.

What data and files are covered in this Readme?

This data package includes five files, which are listed in the following table.

- all_flow_classes.csv
- oda-like flows.csv
- oof-like_flows.csv
- vague_flows.csv
- project_descriptions_and_sources.csv

File Name	Description
all_flow_classes.csv	Includes locations for all projects, regardless of flow_class. (See below for field descriptions.) All fields from AidData's Global Official Chinese Finance Version 1.0 dataset are included except for the "description", "source", and "factiva source" fields.
oda-like_flows.csv	Filtered version of the all_flow_classes.csv according to flow_class "oda-like", which includes "aid" projects in the strictest sense of the term. For more information, see the "flow_class" definition below.
oof-like_flows.csv	Filtered version of the all_flow_classes.csv according to the flow_class "oof-like", which includes projects that do not qualify as "aid" in the strictest sense of the term. For more information, see the "flow_class" definition below.
vague_flows.csv	Filtered version of the all_flow_classes.csv according to the flow_class "Vague (Official Finance)." This file includes all projects for which there is insufficient information to make "aid" or "not aid" determinations. For more information, see the

	"flow_class" definition below.
project_descriptions_and_sources.csv	To optimize file download size, project descriptions and sources of project documentation are not included in each of the files above. This file includes these fields and is organized according to projects rather than project locations.

Description

Each file — with the exception of project_descriptions_and_sources.csv — contains a merge of the 'raw' data used in AidData Working Paper 64, <u>Connective Financing: Chinese Infrastructure Projects and the Diffusion of Economic Activity in Developing Countries</u>. To access the 'raw' data, please visit [INSERT LINK TO GITHUB]. Some of this 'raw' data is also available on <u>GeoQuery</u>.¹

Each row in the merged files contain a project location. To make it easier for users to distinguish between projects that do and do not meet the strict definition of "aid", these files provide project location records that have been pre-filtered according to the "flow_class" variable (ODA-like, OOF-like, Vague OF). Descriptions² of these flow classes are also listed in the table below.

The geocoded data in this data package is taken from AidData's <u>Global Chinese Official</u> <u>Finance Dataset</u>, <u>Version 1.0</u> (CGOF), released in October 2017. Two filters were applied prior

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¹ When aggregating data, GeoQuery performs advanced calculations that attribute portions of less geographically precise aid to more geographically precise levels of aggregation. Because of this, users performing a "simple" filtering operation in a spreadsheet may arrive at a different result than users who input those same filter parameters into GeoQuery. For a full description of GeoQuery's "boundary rasterization" process, visit the documentation for AidData's *GEO* framework: http://geoquery.org/wp-content/uploads/2017/10/IntroducingtheAidDataGeoFramework.pdf.

² From the Readme of the source dataset, AidData's Global Chinese Official Finance: "Chinese Official Finance refers to concessional and non-concessional sources of funding from Chinese government institutions (including central, state or local government institutions) with development, commercial, or representational intent. More specifically, it captures (a) highly concessional, Chinese development projects that meet the OECD's criteria for ODA; and (b) officially-financed Chinese projects that lack development intent or are provided with higher interest rates and lower grant elements (i.e. projects that fall within the OECD's criteria for "Other Official Flows", or OOF.) Chinese ODA represents "Chinese aid" in the strictest sense of the term, but Chinese official finance (ODA and Other Official Flows) is sometimes used as a broader definition of aid. AidData's dataset allows users to disaggregate Chinese official finance into its constituent parts and determine if they wish to use a narrow or broad definition of aid."

to geocoding project locations: projects were only geocoded if the "recommended_for_research" field³ was set to "true" and if the "status" field⁴ was set to "completion" or "implementation".

The main difference between the geocoded data in the merged CSV files listed above and the source dataset (without geocodes) is that each row in the merged CSV files consists of a *project location* instead of a *project*.⁵

When a project had multiple locations, the total commitment amount for that project was evenly divided by the number of project locations. The total amount for the entire project is located in the column "project_total_commitments." This amount corresponds to the value that the "usd_defl_2014" variable takes in the source dataset. The amount attributed to each project location is listed in the "even_split_commitments" column. To facilitate analysis, non-financial project-level variables⁶ (such as "funding_agency" or "flow_class") are carried over to each project location.

All data from the Global Chinese Official Finance Dataset (Version 1.0) were collected using <u>AidData's Tracking Underreported Financial Flows (TUFF) methodology, version 1.3</u>. TUFF is a rigorous and replicable methodology that synthesizes and standardizes open-source information in order to create project-level official finance data for opaque donors and lenders.

Since AidData began tracking underreported financial flows in 2013, it has benefited from the generous support of Humanity United, the John D. and Catherine T. MacArthur Foundation, the William and Flora Hewlett Foundation, the Academic Research Fund of Singapore's Ministry of Education, the United Nations University World Institute for Development Economics Research (UNU-WIDER), and the College of William and Mary.

Field Names and Definitions

³ The "recommended_for_research" field identifies projects that AidData recommends including for most types of research & financial analysis. In the CGOF dataset, it is equal to "TRUE" for all projects except for those that are marked as umbrella projects, pledge projects, cancelled projects, and suspended projects. Projects marked as "FALSE" were excluded from this dataset.

⁴ The "status" field tracks the progression of a project. Labels from the CGOF dataset include: Pipeline: Pledge, Pipeline: Commitment, Implementation, Completion, Suspended, Cancelled. Projects that were not marked "Implementation" or "Completion" were excluded from this dataset.

⁵ Each row in the project_descriptions_and_sources.csv file still contains project-level data. This data includes the project descriptions and the sources used to create the dataset, AidData's Global Chinese Official Finance, Version 1.0.

⁶ Full project descriptions and sources used to compile the original project record in the Global Chinese Official Finance dataset were omitted from the pre-merged project location files to economize file size.

Field Name	Definition
ad_purpose_codes	AidData has developed a granular system of sector coding, which expands the OECD's purpose code scheme. For more information, please visit: https://www.aiddata.org/pages/data-user-guide
	Note: This dataset is not purpose coded, so this column is blank.
ad_purpose_names	AidData has developed a granular system of sector coding, which expands the OECD's purpose code scheme. For more information, please visit: https://www.aiddata.org/pages/data-user-guide
	Note: This dataset is not purpose coded, so this column is blank.
all_recipients	From the CGOF readme: "The recipient entity or entities receiving official finance from a donor entity. A project record can have multiple recipients in cases where a donor entity is providing financing, goods or services to more than one country through a single project. This field provides a pipe-delimited list of all recipients specified as receiving official finance from a donor entity."
amount	From the CGOF readme: "Monetary amount pledged or committed by the donor entity for the completion of a project."
	Note: See "disambiguation" section below. In the CGOF, "amount" refers to commitments in varying currencies. For the total amount committed to an entire project deflated to 2014 USD, please refer to the field "project_total_commitments". For an estimation of amounts committed to a project location, please refer to the field "even_split_commitments".
cofinancing_agency	Co-financing agencies or other agencies involved in the project

contacts	From the CGOF readme: "Name and position of people who were involved in the project if available."
currency	From the CGOF readme: "Currency associated with the monetary amount for a project."
	Note: "Currency" only refers to the value in the "amount" column. It does not refer to monetary amounts listed in other columns, which denominated in USD.
crs_sector_code	From the CGOF readme: "3-digit sector classification based on OECD sector codes."
crs_sector_name	Name of the 3-digit sector classification based on OECD sector codes sources Links to all the sources attached to one project.
deflators_used	From the CGOF readme: "Deflator value calculated based on AidData methodology (which mimics OECD deflation methodology) using World Bank sources. Deflator is calculated using donor country inflation and change in buying power."
	This conversion was applied to the value in the "usd_current" column in order to calculate the value listed in the "usd_defl_2014" column, which provides the source for the "project_total_commitments" in this data package.
description	1-2 paragraph comprehensive summary of the activities supported by the project. For a detailed explanation of how this variable is recorded, please see page 15 of the TUFF methodology found here: https://www.aiddata.org/methods/tracking-underreported-fin-ancial-flows
	Note: In this data package, the "description" field only appears in the file "description_and_sources.csv". In order optimize the overall size of this data package, this field was not merged with project locations.
end_actual	From the CGOF readme: "The actual date that a project was completed on."

end_actual_isodate	Standardized conversion of the value in the "end_actual" column to the isodate format.
end_planned	The announced completion date for a project.
even_split_commitments	This estimate of the amount of the project that was allocated to each location of the project is taken by dividing the value in the "project_total_commitments" column by the number of locations that correspond to a particular project. (i.e. the number of rows with a project_location_id that includes the project_id.)
even_split_disbursements	Total disbursements divided by number of project locations. Since this dataset only tracks commitments, this column is also blank.
exchange_rates_used	From the CGOF readme: "Exchange rate used to change the specified currency of the original amount into USD."
	This rate was applied to the value in the "amount" column to arrive at the value in the "usd_current" column.
field_completeness	From the CGOF Readme: "Rates projects based on the number of missing data fields critical to understanding the project. It also penalized projects with "Vague" makers like "Vague Official Finance" for flow class or "Vague TBD" for flow type. The field completeness measure varies from 0 to 9; higher values indicate that a higher percentage of the "fields" (i.e. variables such as transaction amount, flow type, and commitment year) for a given project record are complete. For more information, see http://china.aiddata.org/content/improving_the_data ."
flow	Details on how financial flows, goods or services are transferred from the donor to recipient for a project. Flow types include: Debt Forgiveness, Debt Rescheduling, Export Credits, Foreign Direct Investment, Freestanding Technical Assistance, Grant, Loan, Joint Venture with Recipient, Scholarships/Training in Donor Country, and Strategic/Supplier Credit.
flow_class	TUFF Coders are also instructed to assign all projects to one of the following flow class categories: "ODA-like", "OOF-like", "Vague (Official Finance)". More details on these

	flow categorizations can be found in TUFF Methodology 1.3 document located here:
	If one's goal is to capture Chinese Official Development Assistance (ODA) or aid in the strictest sense of the term, include only projects that are classified as ODA-like. However, if one's goal is to capture the universe of Chinese Government-financed projects provided on concessional and non-concessional terms, include projects that are classified as ODA-like, OOF-like and Vague (Official Finance).
funding_agency	Donor agency that provided the funding.
gazetteer_adm_code	An array of unique identifiers that represents the hierarchy of a GeoNames place taken from various sources in the GeoNames Gazetteer. For more information on GeoNames data source, visit: https://www.geonames.org/data-sources.html
gazetteer_adm_name	An array of names associated with the gazetteer_adm_code that represents the hierarchy of a place. For more information on GeoNames data sources, visit: https://www.geonames.org/data-sources.html
geographic_exactness	A two-point, ordinal scale taken from the International Aid Transparency Initiative (IATI) standard that captures how precisely a record has been geocoded, where 1 is "exact" and 2 is "approximate". For more information, visit: http://reference.iatistandard.org/202/codelists/GeographicExactness/
geoname_id	The unique identifier of a place taken from the "GeoNames" catalogue. For more information about GeoNames, visit http://www.geonames.org/
grace_period	Interval to first repayment of capital in years.
grant_element	From the CGOF readme: "Grant element of the loan, in percent. Uses grant element reported by project sources, unless it can be calculated independently with the OECD grant element calculator (assumes 10 percent rate of discount, 2 payments per annum, and equity principal payment)."

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Agency that implemented the project. Could be from the donor, recipient or other parties.
From the CGOF Readme: "Perceived intent of the finance provider. Categories covered by "donor intent" include: Development, Commercial, Representational, Mixed (encompassing any combination of the other three intents)."
Reported interest rate of the project loan, in percent.
From the CGOF readme: "Denotes projects with multiple countries acting as donor (including the donor of investigation), where the financial amount provided by each donor separately could not distinguished."
From the CGOF readme: "A binary marker that indicates when a project has been verified with in-country field research."
The assigned latitudinal coordinate assigned to a project coordinate.
Denotes a project or financial arrangement where the donor extended a line of credit to a recipient entity. This credit may or may not be used in its entirety by the recipient.
From the CGOF readme: "Represents the general nature of the loan. Categories covered include: interest free; concessional; non-concessional; no information and some information."
An index of location types used by the International Aid Transparency Initiative (IATI) standard. For more information, visit: http://reference.iatistandard.org/202/codelists/GeographicLocationClass/
The subnational locations where projects occurred.
United States National Geospatial-Intelligence Agency (US NGA) Feature Designation Codes. For more information visit: http://geonames.nga.mil/namesgaz/

location_type_name	The name associated with a location_type_code. For more information on location types, visit: http://geonames.nga.mil/namesgaz/
longitude	The assigned latitudinal coordinate assigned to a project coordinate.
maturity	Reported duration of the project loan, in years.
place_name	The name of a place taken from the in the "GeoNames" catalogue. For more information about GeoNames, visit http://www.geonames.org/
precision_code	An eight-point, ordinal scale that captures how precisely a record has been geocoded, where 1 is the highest level of spatial precision and 8 is the lowest level of spatial precision. For a complete description of AidData's geocoding methodology, visit the geocoding methodology documents found at: https://www.aiddata.org/methods/geocoding
project_id	Unique identification number assigned to every project in the dataset. Within the dynamic, online version of the dataset (at china.aiddata.org), projects can be accessed with their unique identification numbers by using the "Access project by ID" function.
project_location_id	The unique identification number assigned to every project in the raw dataset. The component of the project_location_id that is located before the "_" corresponds to the project with which a location is associated.
project_total_commitments	This amount represents the total amount committed to the project, deflated to 2014 USD. This amount is taken from the "usd_defl_2014" column in AidData's Global Chinese Official Finance Dataset. (Related columns to this deflation are also included in this dataset for reference.) In the raw data file, level_1a.csv, this field name is referred to as "total_commitments".
project_total_disbursements	This amount represents the total amount disbursed to the project, deflated to 2014 USD. This dataset only tracks commitments, so this column is blank.

project_title	Title of project.
recipient_agencies	From the CGOF readme: "Recipient agencies that are involved in the project."
recipient_agencies_count	Number of recipient agencies that are involved in the project.
recipient_condensed	From the CGOF readme: "Recipient country. If multiple countries were identified as recipients, this field identifies the smallest regional grouping that all specified countries belong to."
recipient_count	From the CGOF readme: "Number of recipient <i>countries</i> identified" (emphasis added).
recipient_cow_code	From the CGOF readme: "Code of recipient country according to COW standard".
	For more information on the <i>covariates of war</i> (cow) standard, visit: http://www.correlatesofwar.org/data-sets/cow-country-codes
recipient_iso3	Code of recipient country according to ISO3 standard
recipient_iso2	Code of recipient country according to ISO2 standard
recipient_oecd_code	Code of recipient country according to OECD standard
recipient_oecd_name	Name of recipient country according to OECD standard
recipient_un_code	Code of recipient country according to UN standard
recipient_imf_code	Code of recipient country according to IMF standard
recipient_region	From the CGOF Readme: "Region of the recipient country."
round_coded	This dataset includes locations that were geocoded in three rounds: (1) Chinese Government-financed projects in Africa, which were coded in 2013; (2) Chinese Government-financed projects in three ecologically sensitive regions, which were coded in 2016; and (3) all remaining projects (at the implementation or completion stage) from AidData's Global Chinese Official Finance Dataset, Version 1.0, which were coded in 2017. The first

	dataset was coded using the 1.1. version of AidData's geocoding methodology. Precision scores were assigned by geocoders, indicating how close to a particular set of latitude and longitude coordinates a project occurred. The second and third datasets were coded using the 2.0 version of AidData's geocoding methodology. In this methodology, AidData adopted the International Aid Transparency Initiative (IATI) standard for describing the location class and geographic exactness of a given location. For more information on AidData's geocoding methodology, along with a detailed crosswalk of AidData precision codes to the IATI standard, please refer to documentation found here: https://www.aiddata.org/methods/geocoding
source_triangulation	From the CGOF readme: "Rates projects based on the types of sources (media, academic, donor/recipient government, other official, NGO). The source triangulation measure varies from 0 to 19, with higher values representing a project record that draws upon a diverse set of information sources. For more information, see http://china.aiddata.org/content/improving_the_data ."
sources_count	From the CGOF readme: "Number of sources attached to one project."
start_actual	From the CGOF readme: "The actual date that the implementation of a project began on."
start_actual_isodate	Standardized conversion of the value in the "start_actual" column to the isodate format.
start_planned	From the CGOF readme: "The announced start date for a project."
status	Tracks the progression of a project. Labels from the CGOF dataset include: Pipeline: Pledge, Pipeline: Commitment, Implementation, Completion, Suspended, Cancelled. Note: For this dataset, projects were only geocoded if this field contained a value of "Implementation" or "Completion".
title	Short phrase describing the nature of a given project.

transactions_end_year	This refers to whichever is later: a) the listed end date of a project, or b) the last transaction recorded for a project. This information is drawn source information for a project and is used in GeoQuery to enable users to filter project records by date. Note: "transactions_end_year" replicates the "year" column
	in the CGOF dataset.
transactions_start_year	This refers to whichever is earlier: a) the listed start date of a project, or b) the first transaction recorded for a project. This information is drawn source information for a project and is used in GeoQuery to enable users to filter project records by date.
	Note: "transactions_start_year" replicates the "year" column in the CGOF dataset.
umbrella	This field identifies projects where some agreement was signed between two countries but the funds were not allocated at the original agreement date, only to be allocated through smaller projects later on. Given the nature of TUFF data collection, it is likely that the smaller projects that relate to these umbrella projects were captured elsewhere in the dataset. To avoid double counting, we suggest users do not include records that are marked as umbrella projects in financial analysis. All general lines of credit are also marked as umbrella projects.
usd_current	From the CGOF readme: "Nominal USD value of the amount specified for the project."
	Note: The "current" year refers to the the commitment amount in the year that the project was committed. This is listed in the "year" column.
usd_defl_2014	From the CGOF readme: "Deflated monetary equivalent of reported monetary amount in reported currency to 2014 U.S. dollars."
	Note: This column is replicated in the column, "project_total_commitments.

year	The year in which an agreement was reportedly made between a supplier of development finance and a recipient for a project. If available, the agreement year is the year of the formal signed commitment for a project; if commitment year is unavailable, or if a commitment has not been made, the year of the informal pledge is the agreement year for a project.
year_uncertain	From the CGOF readme: 'Marker for projects without any sources reporting a specific pledge or commitment year. In these cases, the year of the earliest media report serves is coded as "agreement year."'

Disambiguation of Key Terms

"Donor"

For a list of Chinese agencies that provided official finance, please refer to the field "funding_agency". The merged CSV files in this data package do not contain a column labeled "donor".

In AidData's <u>Global Chinese Official Finance Dataset</u>, <u>Version 1.0</u> (CGOF), released in October 2017, "donor" refers to "[the] entity providing assistance to recipient country. This can be a sovereign state or multilateral organization providing assistance to a recipient country. For this [CGOF] dataset, the donor will always be China".

The CGOF dataset provided a field labeled "funding_agency" which listed specific agencies that provided official finance. In the 'raw' data used in Working Paper 64, the "donor" column in level_1a.csv and projects.csv refers to these agencies listed in the CGOF "funding_agency" column.

Monetary Amounts

Monetary amounts for each *project* and for each project *location* are each denominated in 2014 USD. The amount per project is listed in the "project_total_commitments" column, and the amount per project *location* is listed in the "even_split_commitments" column. To calculate the amount per project location, the total amount for the project was divided evenly by the number of project locations associated with that project.

"project_total_amount" / (number of project locations) = "even_split_commitments"

In the raw data used in AidData Working Paper 64, this "project_total_column" column is listed as "total_commitments" in the file, "level_1a.csv." For clarity, this column was renamed in the merged files in this data package. This column was sourced from the "usd_defl_2014" column in AidData's Global Chinese Official Finance Dataset, Version 1.0 (CGOF).

Also included are columns from the CGOF that were used to calculate the "usd_defl_2014" column. These columns are located in the project_ancillary.csv file in the 'raw' data used in AidData Working Paper 64. The value for "usd_defl_2014" was calculated by converting the nominal amount into USD and then deflating to a consistent year, 2014.

- "amount" / "exchange_rate_used" = "usd_current"
- "usd_current" / "deflators_used" = "usd_defl_2014"

For more information about exchange rates and deflators used in the CGOF dataset, visit: http://aiddata.org/data/chinese-global-official-finance-dataset

As noted elsewhere in this document, this dataset only tracks commitments and not disbursements, as defined by the OECD. For more information, visit: http://www.oecd.org/dac/financing-sustainable-development/development-finance-data/dac-glossary.htm

Dates and Years

This data package draws from the 'raw' data used in AidData Working Paper 64, which itself draws from AidData's <u>Global Chinese Official Finance Dataset</u>, <u>2000-2014</u>, <u>Version 1.0</u> (CGOF). Because AidData's geocoded research releases generally include fields to handle both commitment and disbursements, there are additional naming conventions. These columns are included in the merged files in this data package for reference.

- The columns "start_actual_isodate" and "end_actual_isodate" replicate to the "start actual" and "end actual" columns in the CGOF.
- "transaction_start_year" and "transaction_end_year" replicate the "year" column in the CGOF. Because this geocoded dataset is comprised of only commitments (and not disbursements) the starting and ending transaction years are the same. In the 'raw' data used in Working Paper 64, these are listed in the "transaction_year" column in transactions.csv.

Columns With Uniform Values Not Included in the Merged CSV Files

recommended_for_research: true

is geocoded: true

start_type_actual: start actual
end_type_actual: end actual

As noted above, projects were only geocoded if the "recommended_for_research" field in AidData's <u>Global Chinese Official Finance Dataset</u>, <u>Version 1.0</u> (CGOF) was set to "true". Similarly, all of the records in this data package are geocoded, so "is_geocoded" is always set to "true".

The "recommended_for_research" field identifies projects that AidData recommends including for most types of research & financial analysis. In the CGOF dataset, it is equal to "TRUE" for all projects except for those that are marked as umbrella projects, pledge projects, cancelled projects, and suspended projects. Projects marked as "FALSE" were excluded from this dataset.

The fields "start_type_actual" and "end_type_actual" refer to a IATI standard field, Activity Date Type. For this dataset, projects were always geocoded based on "actual" start and end dates. "Actual start" equals the IATI activity type code, "2". "Actual end" equals the IATI activity type code "4". For more information about the International Aid Transparancy Initiative (IATI) standard activity date type field, visit:

http://reference.iatistandard.org/203/codelists/ActivityDateType/

For more information about how AidData's geocoding methodology crosswalks with the IATI standard, please visit the documentation found at: https://www.aiddata.org/methods/geocoding

Guides for using our geocoded data in GIS and in a Spreadsheet

For further information on using data in GIS and spreadsheets, reference:

https://github.com/AidData-WM/public_datasets/blob/master/documentation/using_geocoded_data.md

Tracking Underreported Financial Flow Sources and Methodology

This dataset draws from AidData's Global Chinese Official Finance (Version 1.0) dataset. The following information in this section is taken from the readme for that dataset.

AidData uses the Tracking Underreported Financial Flows (TUFF) methodology to collect detailed financial, operational, and locational information about China's overseas investments. The TUFF methodology involves a systematic, transparent, and replicable process of triangulating information from four primary sources: (1) English, Chinese, and local-language news reports; (2) Chinese ministries, embassies, and economic and commercial counselor offices; (3) the aid and debt information management systems of finance and planning ministries

in counterpart countries; and (4) case studies and field research undertaken by scholars and NGOs. A dedicated research team synthesizes and standardizes the information from these various sources into discrete project records.

In total, AidData drew upon more than 15,000 distinct information sources to assemble its Global Chinese Official Finance (Version 1.0) dataset. On average, each project record is informed and confirmed by three independent sources. Human data collectors were also assisted by a machine learning algorithm (called the TUFF Robot) to help automate the early stages of the data collection process.

China has formally opted out of international reporting systems, including the OECD's Creditor Reporting System and the International Aid Transparency Initiative (IATI). Beijing has published aggregated numbers on foreign aid in the State Council White papers of 2011 and 2014, but it is unclear how they define and measure foreign aid. China does not publish a bilateral, country-by-country breakdown of its international development finance activities. Nor does it publish project-level data or detailed information about the less concessional and more commercially oriented financing that it provides. AidData provides details on all three.

Please see the AidDataTUFF_methodology_1.3.pdf document for a detailed description of the data collection and quality control procedures that AidData use to collect data on Chinese Official Finance.

Data Use Recommendations

Users should pay extra attention to debt forgiveness/rescheduling projects. We have included debt forgiveness/rescheduling projects in the 'recommended_for_research' field, but there may be some overlap if the original loan is captured elsewhere in the dataset. Users may choose to exclude these projects if they so desire, as there is insufficient information to identify whether forgiven debts are already captured by other loan project rows.

Familiarize yourself with the key fields in the dataset and the various categorizations they offer. These fields include: donor, intent, flow, flow class, status, umbrella, sector, and recommended for research.

Glossary

Chinese Official Finance: Concessional and non-concessional funding from Chinese government institutions (including central, state or local government institutions) with development, commercial, or representational intent.

Official Development Assistance (ODA): A project that is primarily aimed at development, has a concessionality level (e.g. grant element) of at least 25%, and the recipient is ODA eligible (as

defined by the OECD, based on country income level). This definition is aligned with the OECD Development Assistance Committee Directives. For a project to be categorized as ODA in our database, the intent field must be set to "Development", and the flow type field must be a grant, grant-like (e.g. scholarships, technical cooperation), or a concessional loan. In our dataset, these flows are categorized as "ODA-like".

Other Official Flows (OOF): A project that does not meet the criteria for ODA, because it is not primarily focused on development, it is insufficiently concessional (e.g. grant element less than 25%), or is being provided to a country that is not eligible for ODA. This definition is aligned with the OECD Development Assistance Committee 2014-2015 Directives. Projects in this category include those where the intent is primarily commercial or representational, and/or projects that are not concessional enough to qualify as ODA. This category includes export credits. In our dataset, these flows are categorized as "OOF-like".

Vague Official Finance: This flow class captures officially financed projects where there was not enough information about the project's concessionality level or intent to make a clear ODA or OOF determination. The OECD-DAC does not require this type of residual category because it members systematically report the intent and concessionality level of their officially-financed projects.

Health of Record Score: An assigned value that rates the completeness and verifiability of each record in the database. The score is used internally to prioritize subsequent rounds of research and quality checks, and can also be used by external users to identify the relative reliability of each record. It is comprised of two individual scores: (1) The Source Triangulation Score captures our level of confidence in the information in a project record based on the type and number of resources used to create the project record, and (2) The Data Field Completeness Score indicates the level of completeness for a given record, based on the availability of information on high-value fields. To get to a Health of Record Score for each project record, we add the Source Triangulation Score and the Data Field Completeness Score together. We consider a score between 0-8 low, and target those projects during our quality assurance procedures to bolster the record. A score of 8-15 is considered good, and a score above 15 is considered very good.

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