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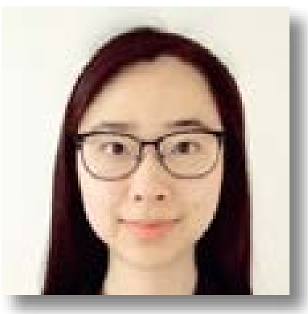
Official Aid or Export Credit:

China's Policy Banks and the Reshaping of Development Finance



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ABSTRACT

This paper seeks to demystify China's overseas development finance by examining the lending mechanism of two policy banks – China Development Bank and Exim Bank of China. Using quantitative data and interviews, the paper shows how and why China mixes the use of official aid and export credits. It argues that existing literature could not fully explain the non-concessionality of Chinese loans. Challenging the postwar paradigm of development finance, which was established by industrial countries based on an idea of "donation" from the North to the South, China practices a "state-supported, market-based" way of development finance. The state involves in infrastructure finance not through direct allocation of fiscal revenue, but through enhancing the creditworthiness of projects and making them bankable to the market. This form of development finance provides an alternative option for developing countries.

KEYWORDS

Development Finance, Policy Bank, Official Development Aid, Export Credit, China

Introduction

In the past decades, China has been massively financing infrastructure projects overseas, building railways, bridges, power plants, and ports around the world. The enormous amount of capital outflow has drawn much attention from international investors, mass media, policy makers, and academics, especially after the announcement of the Belt and Road Initiative and the establishment of the Asian Infrastructure Investment Bank in 2013. Though heatedly debated and discussed, the nature of these infrastructure loans remains controversial in academic writings and media reports. Sometimes they are referred as state-led aid, financing infrastructure works in less developed countries, whereas other times they are seen as commercially-driven export credits, supporting the international venture of Chinese manufacturers.

Both narratives are true to a certain extent and the presence of both of them reflects the fact that China mixes the use of aid and export credits. But if we examine the nature of these credits carefully, we find that aid loans and export-credit loans hold fundamentally contradictory lending philosophies: aid serves the interest of the recipient whereas an export-credit loan serves the interest of the lender; aid offers a more favorable condition to a less developed country, whereas a commercial loan charges higher interest rates from it. In other words, it is impossible to be "both" at the same time. More importantly, the two ways of understanding these cross-border loans lead to different interpretations of China's incentives in doing overseas projects, which consequently result in different conclusions regarding the impact of these loans on the global political and economic order. If they are aid with little commercial interest, they may be used to serve foreign-policy or geopolitical purposes, but if they are export credits, they may ultimately choose more-developed economies as destinations and converge to the existing global market. To what extent are these loans "aid" and to what extent are they "export credits"? Why has China mixed them up for its overseas development-finance projects?

This paper seeks to dissect China's overseas development-finance loans by focusing on the major agencies that handles them, i.e. the China Development Bank and the Export-Import Bank of China. As public financial agencies that pursue both policy and commercial objectives, the two policy banks reconcile state versus market interests. Examining the international lending of these two banks, the paper makes two arguments, one descriptive and one explanatory. First, the nature of China's development-finance loans is a mixture of official aid and export credit. In terms of lending destinations, these loans are aid-like and flow mostly to the less developed regions, but in terms of their terms and conditions, they appear commercially-driven, i.e. their interest rates are non-concessional and comparable to market rates. Such a mixture can be partially explained by China's geopolitical, foreign-policy strategy and the state-led economic development model, two prevailing explanations provided by existing literature. But beyond that, the dual identity of these loans shows that China, as a developing economy and a late comer of the international market, is reshaping the existing development-finance paradigm, which is based on the idea of "donation" from the North to the South and associates development finance with concessionality. The lending of the two policy banks presents a "state-supported, market-based" way of development finance. The state involves in infrastructure finance not through direct allocation of fiscal revenue, but through enhancing the creditworthiness of projects and making them bankable to the market. This form of development finance provides an alternative option for developing countries.

The contribution of this paper is threefold. First, it provides a new perspective of understanding China's overseas development finance through a close examination on the financial agencies that disburse those loans. The majority of the literature that analyzes China's overseas infrastructure investment has been focusing on either government organs or business sector, while the policy banks that lie in-between the state and the market have been largely overlooked. Using open-source quantitative data and interviews, this paper demystifies the lending process and analyzes the incentives and operating models of the policy banks that serve both government and firm interests.

Second, the paper seeks to clarify the confusion over the concept of China's overseas "development finance". As a result of a lack of a clear definition, existing calculations and estimations of China's overseas development finance vary largely from each other, which consequently leads to starkly distinctive conclusions about the impact of the capital flow. In fact, the same loan can mean different things in the eyes of different parties. For example, a market-rate exim-bank loan to a less developed country may appear to be an "aid" from the recipient's perspective, but is regarded as a commercial loan from the lender's perspective. This paper examines the portfolio of China's development-finance credits using the OECD definition, and explains the factors that cause China's blended use of official aid and export credit.

Third, the paper contributes to the literature of development studies and development economics. The concept of development as well as the rules of development finance in the postwar era were mostly written by the Bretton Woods institutions, the United Nations, the OECD, and the many other international institutions established by industrial countries. China as an emerging donor/lender challenges the existing paradigm of development finance. This paper attempts to characterize an alternative view of development finance through examining the world's largest developing country.

The sections below will be structured as follows. The first section provides a literature review and research methods. The second section presents what China's official development finance looks like using OECD definition, and argues that the majority of China's development-finance loans are providing non-concessional interest rates for projects in less developed regions. The third section explains the rationales behind such Chinese-style development finance, and is followed up by a fourth concluding section.

Literature Review and Research Methods

Literature Review: theorizing China's overseas development finance

Existing estimations of China's international lending present various forms of credits of development finance. The JICA Research Institute estimates China's foreign aid using open-source data from Chinese official documents (Kitano and Harada, 2014; Kitano, 2016).AidData's China Project by William & Mary College tracks reported projects of "Chinese Official Finance" by three categories: official development assistance (ODA), other official flow (OOF), and vague official finance. The China Africa Research Initiative of John Hopkins School of Advanced International Studies tracks China's aids, loans, and FDI to Africa. Boston University's Global Development Policy Center racks the global energy finance loans of China's two policy banks.

Analyses based on these existing databases point out two facts about China's international lending. First, China uses various types of credits to finance overseas projects, and there has been no consensus on how to categorize these credits. It is often difficult to tell whether a loan from China is aid or an export credit, and China categorizes its development-finance credits in a way that is different than the OECD definitions. To clarify the concept of China's development finance, this paper in the sections below will provide a detailed examination of the multiple types of Chinese credits. Second, and quite counter-intuitively, the bulk share of Chinese overseas development finance is not ODA and is non-concessional (Bräutigam, 2011; Bräutigam and Gallagher, 2014; Dreher et al., 2017). Both facts show that China's development finance differs from that of the traditional donors, which are mostly countries of OECD-Development Assistance Committee (DAC). The facts also lead to the question: why does China use non-concessional loans to finance development projects, which (1) appear commercially nonviable and (2) according to existing international norms should be either financed by concessional loans or not financed at all?

The economic statecraft literature provides a perspective to understanding these issues, arguing that the state uses economic activities to achieve foreign-policy, geopolitical, security, and strategic goals (e.g. Baldwin, 1985; Mastanduno 2007). Through such a lens, the Chinese policy-bank loans are seen as the state's tool to pursue objectives that are beyond pure economic interests (Alvis, 2013; Reilly, 2013; Norris, 2016). This strand of literature lays the foundation for a commonly observed interpretation of China's infrastructure projects in the developing countries – they do not necessarily make profit, but fulfill China's global political ambition. The economic statecraft literature could help advance understanding of the lending portfolio of the policy banks on a macro level, especially in the energy sector where the banks seek to achieve the state's strategic goal in securing resources overseas. But a micro-level examination of the policy banks' lending process shows that the story is more than economic statecraft. As the sections below will show in detail, Chinese government organs with diplomatic or political mandates have very limited authority in coordinating overseas loans, and the ones that are really in control are the economic ministries. What is more, the theory could not explain the non-concessionality of those cross-border loans.

The developmental state theory offers another perspective to understanding China's overseas loans (e.g. Johnson, 1982; Amsden, 1989; Wade, 1990; Haggard et al., 1993; Evans, 1995; Woo-Cummings, 1999; Solís, 2004; Thurbon; 2016). This strand of literature underscores the state's coordinating role in facilitating economic growth, supporting selected industries, and assisting exports. Backed up by the state, a selected group of enterprises are able to access low-cost capital and thereby compete with their foreign rivals on the international market with greater advantages. The developmental-state model is often used to explain the economic rise of late industrialized economies, such as China's East Asian neighbors Japan and South Korea. A large part of China's overseas development finance can be explained by this theory. As the paper will show, a considerable amount of the Chinese loans were lent to selected enterprises with close ties to the state, and the policy-bank lending assisted the overseas venture of these enterprises, which were late comers of the international market. Nonetheless, the non-concessionality of the Chinese loans remains unexplained. This literature sees preferential credits as a crucial element of state support, i.e. having accessibility to cheap capital creates a comparative advantage for the selected industries and firms. This, however, does not apply to the case of China.

The failure of existing literature in explaining China's non-concessional development loans allows us to reconsider the meaning of development finance and the existing paradigm that determines the rules and norms of financing development projects. What concessionality implies essentially is a transfer of wealth from donors to recipients. The interest rate of a concessional loan is lower than market rate and has to be subsidized by the donor/lender. The practice of concessional lending (and its extreme version, grant giving) is therefore charitable. The development economics literature in the 1950s and 1960s highlighted the importance of large investment capital in jumpstarting economic growth and provided the theoretical ground for such a practice (e.g. Lewis, 1954; Rosenstein-Rodan, 1961; Rostow, 1963). In the same era was the establishment of the World Bank's International Development Association (IDA) and the OECD-DAC, two international organizations that have been regulating and disbursing soft loans and aid to the developing world. The idea behind this tide of "donation" in the postcolonial era was that with the aid from industrial countries, "backward" economies could begin to grow. The incentives of the traditional donors, however, were more than economic. Aid giving was also a tool for maintaining relationship with former colonies and strengthening political ties with the Third World in the Cold War era. Such a donation-based practice of aid giving was criticized for being inefficient, resulting in market distortions and causing debt issues in the recipient countries, and gradually challenged by the more commercially-driven means of aid giving by emerging donors (Bauer,1968; Easterly, 2003 and 2006; Kothari, 2005; Six, 2009; Sato et al, 2011; Mawdsley, 2012; Ohno and Ohno, 2013; Edwards, 2014).

Combining aid with export credits, China's non-concessional loans challenge the conventional knowledge that development finance should be conducted in a charitable, philanthropic manner. China is a significant emerging donor but it should not only be conceptualized as merely a "donor", because the majority of development-finance loans from China, as the paper will show in detail below, are not "donations" at first place. Chin and Gallagher (forthcoming) argue that China globalizes its development finance through the overseas diffusion of a coordinated credit space model that blends non-concessional and concessional lending, aid, and commercial lending. Lin and Wang (2016) argue that China, based on its own experience of economic growth, is going beyond aid through development cooperation for structural transformation. Xu and Carey (2015) propose an idea of "public entrepreneurship", a new wave of scaled-up market-based official finance especially from emerging economies. Along the same line, this paper argues that China's policy banks are offering a new form of development finance. Through a close examination of the lending mechanism of China's two policy banks, the agencies that handle the majority of the country's development-finance loans, the paper shows that differing from traditional aid giving, which is based on the idea of donation from the North to the South, China practices "state-supported, market-based" means of development finance.

Research Methods

DATA

This research uses both quantitative and qualitative data. Quantitative first-hand data are obtained from publicly accessible annual reports, financial almanacs, and historical documents. Due to the fact that the two policy banks reveal limited data by sector, region, or project, when official data is not available, the research uses secondary data, namely, Aiddata's China project compiled by Williams and Mary College, China's Global Energy Finance data compiled by the Global Development Policy Center, Boston University, and Engineering News-Record data. Qualitative data are obtained from interviews as well as articles and papers written by people working or used to work in related fields. This includes government officials, bank officials, loan managers, employees of enterprises engaged in overseas development finance, and among others. Both types of data are used to characterize the volume, cost, direction, purpose, and lending process of the development-finance loans.

COMPARATIVE CASES

In order to understand China's overseas development finance, it is important to identify "to what" the Chinese loans are compared to. For example, relative to what do we say a loan from China has a low interest rate? According to which definition do we say a loan is aid? This paper uses two benchmarks. One is the paradigm of development finance established by OECD and the World Bank in the postwar era, which will be discussed in detail in the upcoming section. This paradigm determines the rules, norms, and regulations regarding how a country should issue development-finance loans/aid. What is important about this paradigm is that it was initiated mostly by West European countries and the United States, i.e. the earliest developed economies and also the main traditional donors.

Another benchmark is Japan's postwar development-finance model. Here Japan is treated as the "most similar case" to China. The reason is several-fold. First, in terms of scale, both countries are among the largest economies as well as the largest lenders/donors in the world. Second, the two shared many institutional similarities such as large banking sectors, strong bureaucratic systems, and more importantly, both have strong public-financial agencies mandated to serve policy goals. Third, Japan was a major challenger to the existing OECD/WB paradigm in the postwar era, just like China today. From the 1950s to the 1970s, the Japanese economy grew rapidly and its ODA-financed overseas projects posed a great challenge to American and European firms. The OECD thus began to modify ODA rules in order to prohibit Japan from using concessional ODA lending to compete in international tenders. As a result, Japan had to make a major shift on its ODA policies and untie its ODA loans. China's current status resembles the earlier Japan, and many aspects of the Chinese loans can in fact be explained the by the Japanese model. But China still differs from Japan on the issue of concessionality. These comparisons will be discussed in a more detailed manner in this paper.

Estimating China's development finance using OECD definition

Official Aid versus Export Credit: the OECD definition

Capital for development finance comes from multiple sources. Financiers of development projects include multilateral financial institutions, such as the World Bank, the Asian Development Bank, the European Investment Bank, to name a few, or public financial agencies of particular countries, such as the Japan International Cooperation Agency, the China Development Bank, the KfW Development Bank, and among others. In addition, any private investor that has the capital and interest in financing infrastructure works can also be a provider. Since a development project can serve both a public purpose of providing public goods and a private purpose of generating profit, it is usually hard to differentiate the public versus private incentives of the capital. But since development projects usually require long-term and large-volume investment and are not necessarily commercially viable, the finance of these projects often times involves public elements.

A commonly used type of development-finance capital is Official Development Assistance (ODA). According to the definition of OECD, ODA has to meet three criteria. First, it must be "official", i.e. "provided by official agencies, including state and local governments, or by their executive agencies". Second, it must be concessional, meaning the interest rate should be lower than market rate. Third, the main objective must be the "economic development and welfare of developing countries", i.e. not serving the commercial purposes of the donors.[1]

Using this definition, two types of official loans cannot fall into the category of ODA, and they are categorized as Other Official Flows (OOF).[2] (1) Non-concessional development loans: loans that are offered by an official agency but do not meet the concessional condition. An example is a loan offered by a national development bank at a market interest rate. (2) Export Credits: loans/guarantees that are offered by an official agency but not for the purpose of the recipient country's development. An example can be a loan provided by an official export credit agency (ECA) of the donor country for the purpose of promoting its own exports.

The second type of OOF, i.e. export credits, are handled by a country's official ECA, and consist of two categories. The first is direct export credits, i.e. "loans extended by ECAs to facilitate and encourage exports to developing countries". An example can be a loan from the Japan Bank of International Cooperation (JBIC, a state-owned official ECA) to support Japanese export to India. The second is officially-guaranteed or insured export credits, i.e. "loans extended by the private sector but guaranteed/insured by ECAs to finance an export transaction." An example can be a loan provided by the Deutsche Bank and guaranteed by the official insurance ECA of Germany, Euler Hermes.

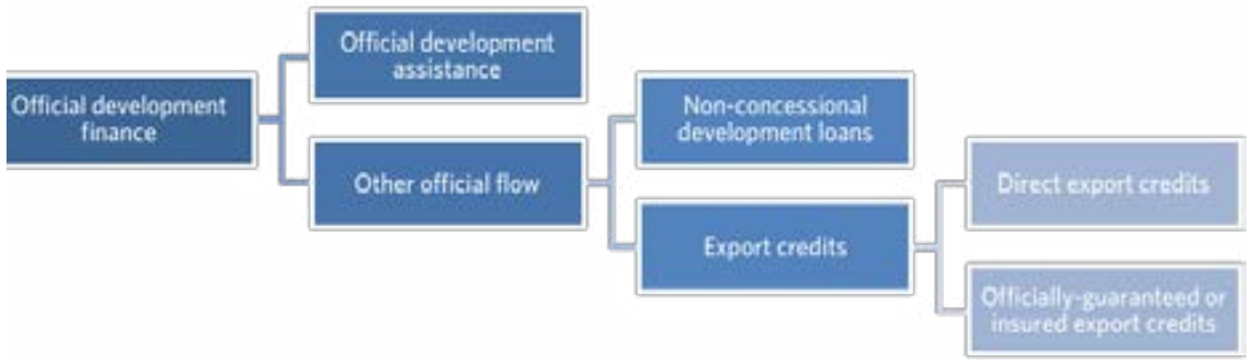
Although the OECD has explicit definition for each type of credits, in reality the boundaries between these credits are not well demarcated. There are mainly two reasons for such blurriness. First, it is difficult to draw a line between concessional and non-concessional loans. For instance, nowadays the interest rate of Japanese and European capital is rather low, and even the market rate appears quite "concessional". Thus in terms of cost there is not much difference between a concessional loan offered by an official agency and a commercial loan offered without official support. Second, it is hard to identify the objective of a loan. An infrastructure project can benefit the recipient country and at the same time facilitate exports of the donor country. As a result of these ambiguities, countries can intentionally mix these credits to achieve certain goals. One commonly observed grey zone is the offering of low interest-rate ODA loans to commercially viable projects. By doing so, a country lowers the cost of capital and thereby increases its chips in international competition. This practice was rather common in the 1970s, when many countries applied a "beggar-thy-neighbor" trade policy to boost their own exports. To avoid this, the OECD has carried out various regulations and rules throughout the postwar era, aiming to explicitly demarcate ODA and export credits, but loopholes still exist.

Despite the blurriness between different types of credits, the OECD typology has been commonly used by its members and non-members to estimate the volumes of their overseas development finance. The sections below will analyze China's official development-finance loans/grants based on such a framework, and examine the volumes of China's (1) ODA (concessional official loans), (2) non-concessional official loans, and (3) officially-guaranteed or insured commercial loans.

1 "Official development assistance – definition and coverage," OECD, http://www.oecd.org/dac/stats/officialdevelopmentassistancedefinitionandcoverage.htm.

2 "Resource flows beyond ODA in DAC statistics," OECD, http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/beyond-oda.htm. "Non-ODA flows to developing countries: Export credits," OECD, http://www.oecd.org/dac/stats/beyond-oda-export-credits.htm.

Graph 1 OECD typology of official development-finance credits



Examining China's development finance through the OECD lens

China's official development-finance capital generally falls into four categories – (1) grants and interest-free loans issued by government (ministry), (2) concessional loans and (3) non-concessional loans issued by policy banks, and (4) commercial-bank loans insured by official insurance company. Not being an OECD member, China does not use the OECD definitions to categorize its development-finance credits. According to the Chinese government's official definition, China's foreign assistance consists of the first two types of capital, i.e. grants and interest-free loans disbursed by the Department of Foreign Assistance of the Ministry of Commerce (MOFCOM) and concessional loans issued by the Department of Preferential Loans of the Exim Bank of China (Chexim).[3] Grants and interest-free loans are capitalized by the government's fiscal revenue whereas the concessional loans use mostly Chexim's self-raised funds. Concessional loans are denominated in Renminbi with an interest rate below China's central bank's benchmark rate, and the margin between the two is subsidized by the Ministry of Finance (MOF).[4] In addition to concessional loans, Chexim offers a type of U.S. dollar loan that is also below market interest rate – preferential buyer's credit. These dollar loans are not calculated as part of China's official foreign aid, because they are financed by the bank's own capital and are not subsidized by government funds. The two types of loans combined are referred as liangyou loans (literally, two preferential loans). They are handled by the same department of Chexim and come with interest rates ranging between 2% to 3%.[5] MOFCOM's loans/grants as well as Chexim's liangyou loans generally qualify the OECD's definition of ODA, but their aggregated amount is rather limited (see Figure 1). Liangyou loans only compose a minor portion of Chexim's total lending. The bank's other lending departments issue non-concessional loans with interest rates comparable to market rates.

Besides MOFCOM and Chexim, the China Development Bank (CDB) also finances overseas development projects. Despite the fact that the CDB does most of its business at home, its size of overseas lending is actually the largest among all financial agencies in China. By the end of 2016, the CDB's accumulated lending volume in foreign (non-renminbi) currency took up 30.1% of China's entire banking sector, which demonstrates the bank's leading role in China's overseas finance.[6] The CDB only offers non-concessional loans, at least that is what the bank claims to have been doing, in spite of the common suspicion that it has offered preferential credits to projects that serve China's national goals. Interviews with CDB loan managers as well as with employees of enterprises that have received CDB loans suggest that the interest rate of CDB loans generally range from 3-6%.[7] The bank's self-reported average interest rate of "loans and advances" in 2015 and 2016 were 5.25% and 4.40% (CDB Annual Report, 2016), and the interest rates of its medium-long term Renminbi loans range from 4.75-4.9%.[8] What is certain is that the CDB does not offer any kind of officially subsidized loans that resemble Chexim's concessional loans. In very rare cases the CDB may offer an extraordinarily low interest rate. For example, for a widely reported project—Jarkata-Bandung High Speed Railway project for which China and Japan competed intensively, China offered an interest rate of 2% and the capital came from the CDB, according to media reports. This number was hardly representative because the lending process involved many external actors and the decision making was beyond the sole authority of the bank. But even in such a case, the interest rate offered by China was nowhere comparable to that of Japan, which was only 0.1%.[9] The policy banks' non-concessional rates are also generally higher than the interest rates provided by the International Bank for Reconstruction and Development (IBRD), the World Bank's lending arm for higher-income developing countries. The IBRD rates are usually 50-150 basis points above LIBOR, which is around 2-4% in the recent years. Using the OECD definition, CDB loans as well as Chexim's non-liangyou loans are in the family resemblance of OOF and not ODA, because both banks are official financial agencies but neither of the loans are concessional.

The non-concessional loans of Chexim and of the CDB are not that much different from one another, and there is no clear labor division between the two banks' overseas business, especially in the field of infrastructure finance. The reason for this commonality is simple – the two banks share the same group of clients, i.e. China's largest firms, which are mostly state-owned enterprises actively involved in strategic industries such as construction, energy, telecommunication, manufacture, and mining. As a result of such overlap, competition might occur between the two banks. Nonetheless, there is a slight difference in the two banks' lending philosophies. In general, the CDB is more market-driven than Chexim. According to China Banking Regulatory Commission (CBRC), the CDB is a "development-oriented financial agency" (kaifaxing jinrong jigou), whereas the other two policy banks[10] are "policy-oriented financial agencies" (zhengcexing jinrong jigou).[11] The CDB has to maintain its own balance sheet and gain a minimum profit whereas the other policy banks can receive state subsidies. To use the CDB's own words, development-oriented finance is "the deepening and upgrading of policy-oriented finance". The former highlights the use of market mechanism in achieving developmental goals (see Chen, 2012)[12], whereas the latter emphasize their policy-oriented mandates. A consequence of such a difference is that CDB loans are more stringent than other policy-bank loans and the bank has a better financial performance than its two peers.[13]

Another important source of development capital is China's big commercial banks, namely, the Industrial and Commercial Bank of China, China Construction Bank, and Bank of China, all listed in stock exchange and ranked the 1st, 2nd, and 8th of world's largest banks by Forbes. These banks are not official ECAs or development banks, nor are their loans concessional. Therefore they are not ODA by OECD standard. But according to OECD definition, a commercial loan can be considered OOF if the project is guaranteed by an official insurance company (another type of ECA). The underlying assumption behind this definition is that if the project fails, the official insurance company backed up by government's fiscal revenue will cover the lost. In real practice, if a borrower has purchased insurance from an official ECA for its project, banks will offer it a much lower interest rate because the project is guaranteed by sovereign creditability and considered less risky. The Chinese equivalent of insurance ECA is the China Export and Credit Insurance Corporation (Sinosure), which was established in 2001 after a merger of the export-credit insurance departments of the People's Insurance Company and of Chexim. As shown in Figure 1, in 2013 Sinosure insured approximately $50 billion overseas development-finance loans (Sinosure Annual Report, 2015),[14] whereas the two policy banks' estimated non-concessional loans were about $207.6 billion (China Financial Almanac, 2013). However, many of the Sinosure-insured loans were in fact issued by the two policy banks and not by commercial banks. So the volume of China's officially-insured commercial-bank loans in 2013 should be smaller than $50 billion.

Compared to commercial banks, the two policy banks have an advantage in providing long-term, large-volume loans – an important precondition for infrastructure finance. As Figure 2 shows, the two policy banks took up dominant shares (78%) of medium-long term foreign-currency loans of all Chinese banks.[15] This advantage is a result of their distinct source of funds. The two policy banks raise most of their funds through issuing long-term bonds on the bond market. In fact, the CDB played a crucial role in creating China' interbank bond market and is the second largest bond issuer on the bond market, exceeded only by the Ministry of Finance (MOF). Policy-bank bonds enjoy "zero-risk weighting", a policy favor granted by CBRC, which means that the bonds are guaranteed by the state and rated as high as MOF's government bonds. Such sovereign guarantees at their capital-input allow the policy banks to disburse long-term, large-volume loans for their capital-output (see Sanderson and Forsthye, 2012; CDB History, 2013; Humphrey, 2015; Chen, 2017). Commercial banks, on the contrary, rely mostly on clients' deposit, which can be withdrawn short-term.

3 On April 18, 2018, the China International Development Cooperation Agency was inaugurated and its mandate is to coordinate foreign assistance and international development cooperation. This paper analyzes China's development finance policies before this administrative restructure.

4 "Zhongguo de Duiwai Yuanzhu (2014)," the State Council, http://www.gov.cn/zhengce/2014-07/10/content_2715467.htm.

5 "Liangyou Daikuan Yewu Jishao," Export-Import Bank of China, http://www.chinca.org/cms/html/files/2013-12/16/20131216102948872930302.pdf.

6 "Guokaihang: Tuchu Fuwu Yidaiyilu Jianshe," China Development Bank, http://www.cdb.com.cn/xwzx/khdt/201702/t20170204_4068.html.

7 Interest rates of foreign-currency loans are presented in the form of LIBOR + n·100bps. Actual interest rates therefore may fluctuate with LIBOR.

8 "Guojia Kaifa Yinhang Renminbi Daikuan Lilv Biao," China Development Bank, http://www.cdb.com.cn/cpfw/cdkll/rmbdkjzllb/.

9 "Zhongri Zhengduo Yinni Gaotie Zuizhongzhan Jinri Daxiang," Tengxun Caijing, http://finance.qq.com/cross/20150901/5OSn869v.html.

10 China has three policy banks, the other one being the Agricultural Development Bank of China.

11 "Guojia Kaifa Yinhang Jiandu Guanli Banfa Dajizhewen," CBRC, http://www.cbrc.gov.cn/chinese/home/docView/44629962F8C34E959647559003B7BB4D.html. "Zhongguo Jinchukou Yinhang Jiandu Guanli Banfa," CBRC, http://www.cbrc.gov.cn/govView_8CE5EF195B654C20ACB5077415C8A210.html.

12 "Guanyu Kaifaxing Jinrong," China Development Bank, http://www.cdb.com.cn/kfxjr/gykfxjr/.

13 "Zhengcexing Jinrong Zaidingwei," Caijing, http://yuanchuang.caijing.com.cn/2015/0820/3950786.shtml.

14 This includes Medium & Long-Term Export Credit Insurance, Overseas Investment Insurance, Bond and Guarantee Business, and Others.

15 Medium-long term loans refer to loans that are above one year

The CDB's and Chexim's overseas loans are mostly denominated in U.S. dollar, and some are denominated in Renminbi or other currencies. As to their costs, policy banks do not have a significant advantage in offering "cheap" loans compared to the commercials banks. In terms of renminbi loans, the capital cost of the policy banks is generally higher than that of commercial banks: the yield of policy-bank bonds is roughly around 3-5%, whereas the deposit rate is only 1-2%.[16] In terms of foreign-currency loans, the CDB has two sources. The first is to borrow foreign currencies directly from government organs (e.g. the central bank) at a rate of approximately 2%-3% (CDB Annual Report, 2016).[17] The other is to issue foreign-currency bonds, but the volume of issuance is usually limited. In 2016, for example, the bank issued a total volume equaling 6.5 billion USD foreign-currency bonds, whereas its Renminbi-bond issuance was 1500 billion (over 200 billion USD) (CDB Annual Report, 2016). Compared to financiers from developed countries, these Chinese loans are generally costly. For instance, Japan, China's main competitor on the infrastructure finance market, has a negative interest rate, and even the non-concessional yen loans come with low rate. The low interest rates on the international financial market mean that if a Chinese commercial bank can attract sufficient amount of deposit in foreign currency directly, it may be able to offer an interest rate that is even more preferential than those offered by the CDB or Chexim's non-liangyou departments.

In terms of borrowers, MOFCOM's grants and interest-free loans as well as Chexim's liangyou loans are only to governments, i.e. agreements must be signed between MOFCOM/Chexim and a government agency of the recipient country, though firms may be able to participate in international tenders later and sign contracts with project owners. Non-concessional loans, regardless of coming from policy banks or commercial banks, can be lent to either government agencies or corporations. In other words, policy banks' non-concessional loans are not much different from commercial-bank loans in terms of borrowers' type.

What the two differ are in regards to the scale, maturity, and strategy of investments. The CDB identifies itself as a "wholesale" bank with an advantage in offering large-scale, long-term loans. For example, in the first few years since its establishment, the bank offered a 30-billion, 15-year renminbi loan to the Three Gorges Dam project, which is China's and the world's largest hydro power plant (CDB, 2016). The bank also provides portfolio financing, i.e. using bundled loans to finance multiple projects at a time (Zou, 2015; CDB, 2016; Xu, 2017b; Chen, 2018). This way of finance is an outcome of the bank's mandate to facilitate urbanization and development: to equip cities with necessary infrastructure, multiple facilities have to be built at a time, roads, power plants, sewage plants, ports, industrial parks, and among others. Chexim does less urban planning, but also has a preference in lending to projects with economic scale, because its major clients are mostly engaged in strategic industries which projects requires large-volume investment. Compared to the policy banks, the commercial banks' lending volume is smaller on an aggregated level. Neither do they have an advantage in offering long-term large loans. However, on a single project level, a commercial bank is capable of competing with the policy banks, especially for infrastructure projects with great commercial potential. In other words, if the project per se appears lucrative, commercial banks have sufficient incentive and capacity to compete with the two policy banks.

To sum up, except for MOFCOM's interest-free loans and Chexim's concessional loans, all other development-finance capital, including Chexim's and the CDB's non-concessional loans as well as the large commercial banks' loans, are not subsidized by government and generally do not come with a considerable level of concessionality. The CDB loans might be slightly more stringent than that of Chexim due to their diverse lending philosophies, but such difference is not significant. Compared to commercial banks, policy banks have an advantage in scale, i.e. issuing large-volume and long-term loans, but the interest rates they offer are not necessarily more concessional given that they raise most of their funds through bond issuance on the market, which is more costly than raising funds from savings, the usual capital source of commercial banks.

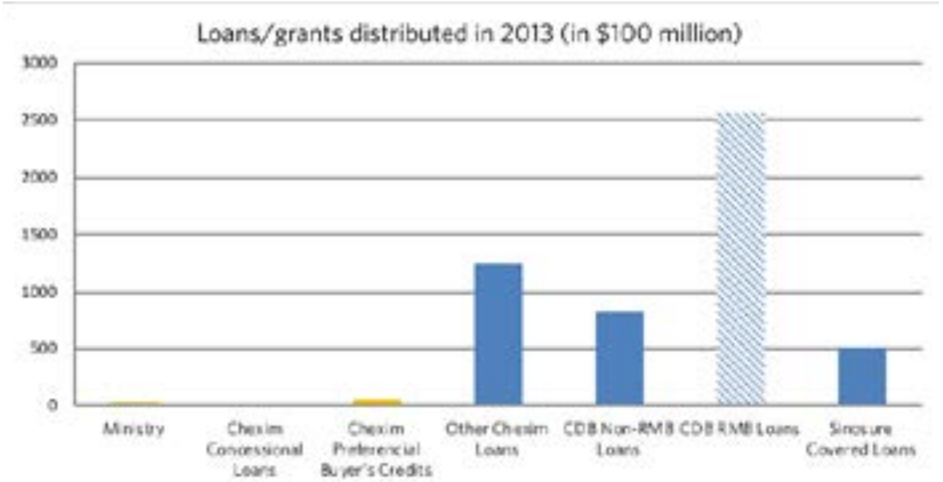
16 Policy bond yield rate can be found on the official website of China Central Depository & Clearing co. ltd and deposit rate can be found on People's Bank of China's official website.

17 According to CDB's annual report, the average interest rate of "borrowings from governments and other financial institutions" was 2.26% in 2016 and 2.67% in 2015. By the end of 2016, 9% of "borrowings from governments and other financial institutions" was in Renminbi, 89% was in US dollar, and 1% was in other currencies.

Table 1 China's official development-finance credits

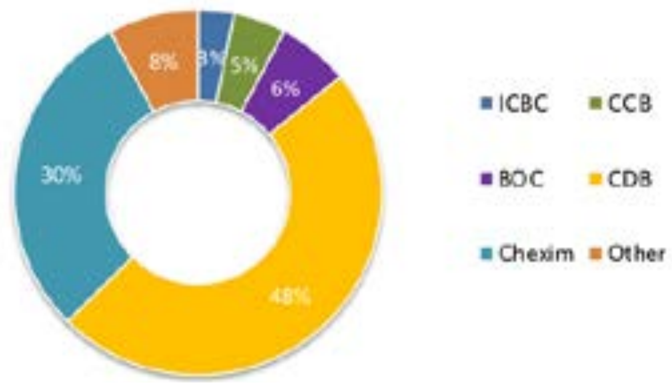
OECD category	ODA			OOF	
China category	Foreign assistance	Foreign assistance/ Liangyou	Liangyou	Non-concessional loans	Commercial loans
Loan type	Grants, free-interest rate loans	Concessional loans	Preferential buyers' credit	Non-concessional loans	Commercial loans covered by Sinosure
Agency	MOFCOM	Chexim	Chexim	Chexim, CDB	Commercial banks
Interest rate	0	2%-3%	2%-3%	Market rate	Market rate
Borrower	Government agency of recipient country	Government agency of recipient country	Government agency of recipient country	Government agency of recipient country/ Chinese firm	Government agency of recipient country/ Chinese firm

Figure 1 China's official development-finance credits



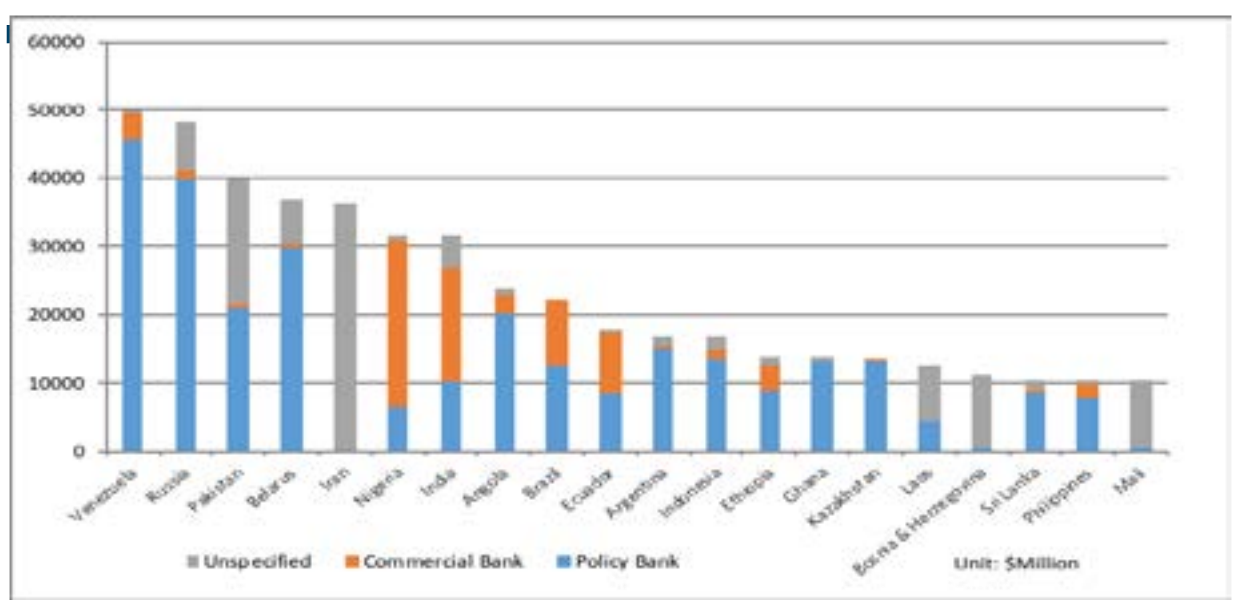
Sources: Ministry of Finance, China Financial Almanac 2013, Sinosure Annual Report 2015

Figure 2 Medium-long term foreign-currency loans by banks, 2015;



Source: China Financial Almanac 2015

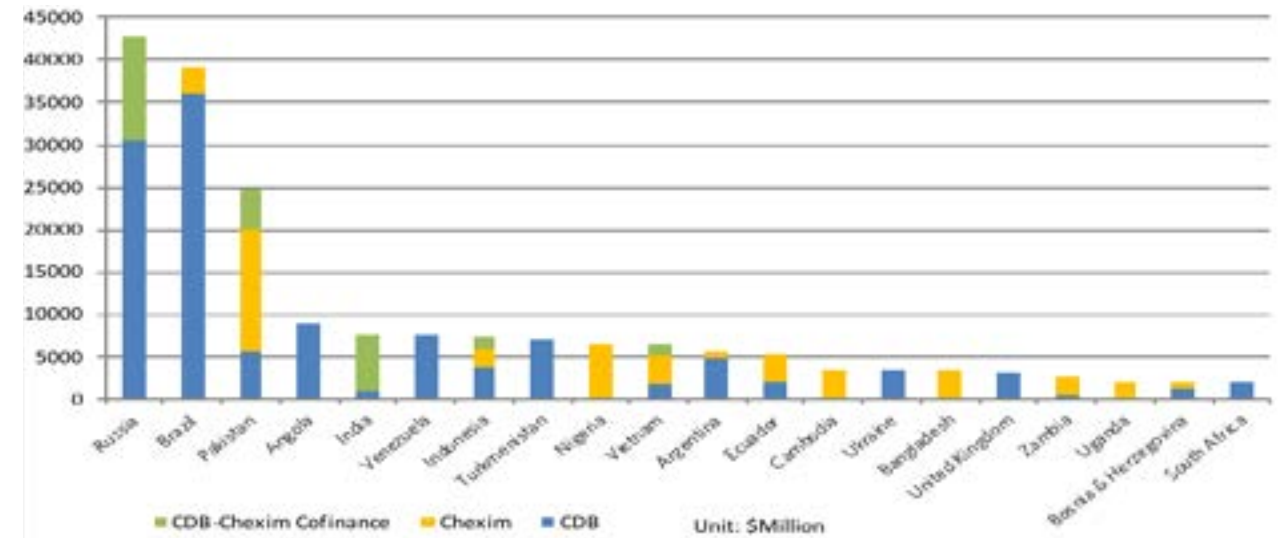
Despite their non-concessionality, the majority of the Chinese loans have been lent to the developing regions. According to [Aiddata's 2017 dataset](), the top 20 borrowers of Chinese bank loans from 2000 to 2014 were Venezuela, Russia, Pakistan, Belarus, Iran, Nigeria, India, Angola, Brazil, Ecuador, Argentina, Indonesia, Ethiopia, Ghana, Kazakhstan, Laos, Bosnia-Herzegovina, Sri Lanka, Philippines and Mali (see Figure 3 China's official bank Loans 2000-2014).[18] Using the World Bank's income-level categorization,[19] eight of these borrowers are upper-middle income countries, eight are lower-middle income countries, two are a low-income, and none of them is high-income (China per se is an upper-middle income country). According to [Global Development Policy Center's dataset](), from 2000 to 2017, largest borrowers of China's policy-bank loans in the energy sector are Russia, Brazil, Pakistan, Angola, India, Venezuela, Indonesia, Turkmenistan, Nigeria, Vietnam, Argentina, Ecuador, Cambodia, Ukraine, Bangladesh, United Kingdom, Zambia, Uganda, Bosnia and Herzegovina, and South Africa (see Figure 4 CDB's and Chexim's lending in energy sector, 2000-2017). Among these, eight are upper-middle income countries, ten are lower-middle income countries, one is a high-income and one is a low-income country. In other words, the policy banks are mostly targeting developing economies.



18 The original dataset has 5466 entries of development-finance projects. The author took out projects that were financed by government organs (e.g. a ministry), companies, and, organizations, and kept projects financed by policy banks, commercial banks, and unspecified financiers; the author also took out grants, interest-free loans, technical assistance, scholarships, debt forgiveness, debt restructuring, and only calculated loans, export credits, supplier credits, and unspecified ones. This added up to 1737 entries.

19 "World Bank Country and Lending Groups," World Bank, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.

Source: aiddata[20]



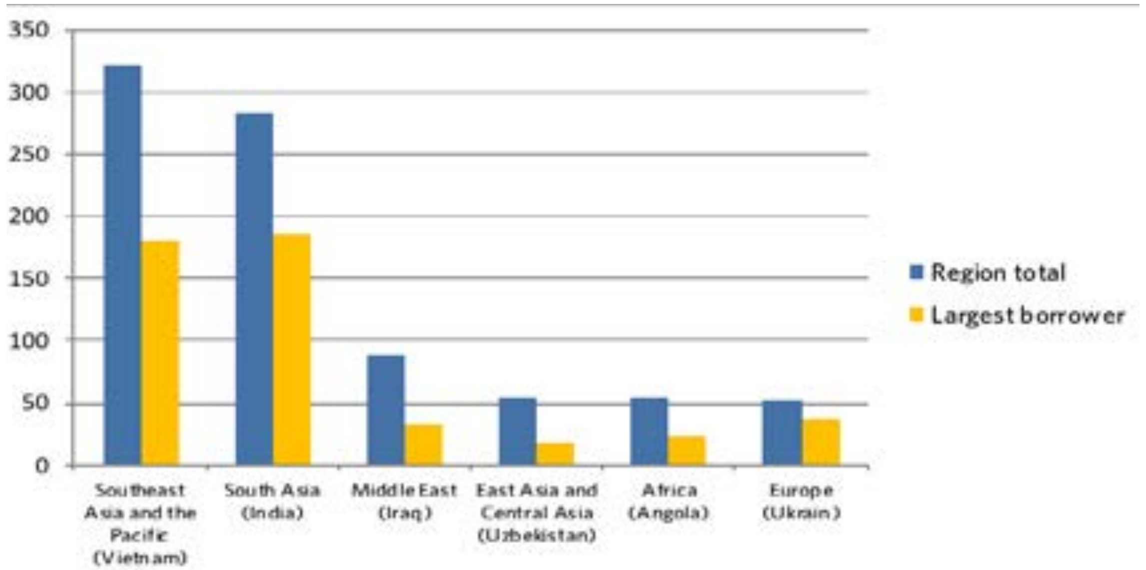
Source: GDP Center

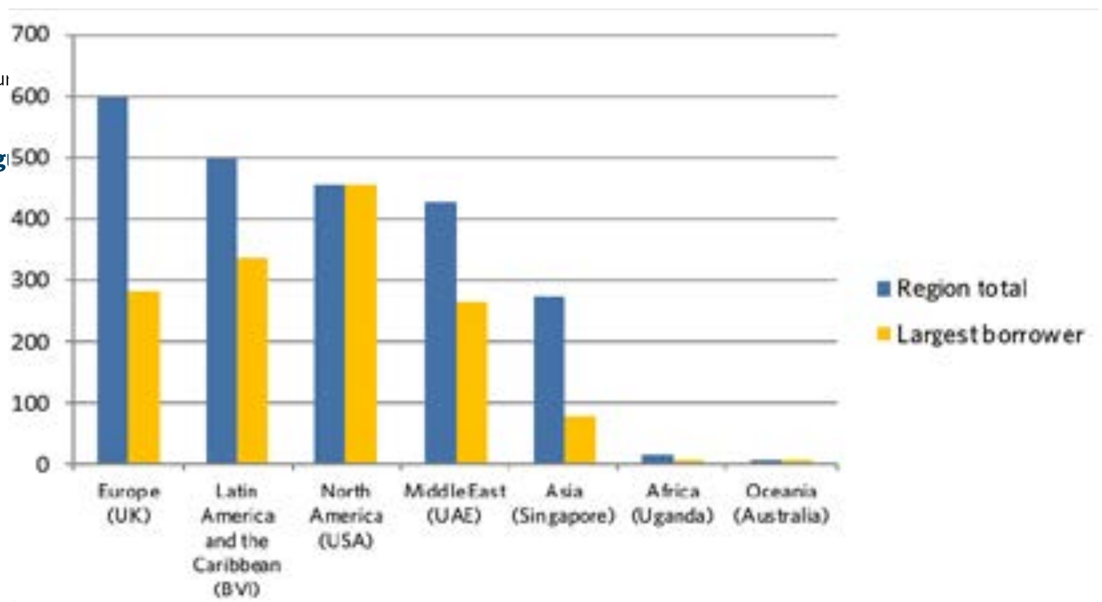
This lending preference shows that China uses non-concessional loans to finance projects in regions that are usually destinations of concessional lending of industrial countries. A comparison to Japan's two public financial agencies illustrates this disparity. Japan has two separate public financial agencies, Japan International Cooperation Agency (JICA) and Japan Bank for International Cooperation (JBIC), which handle concessional ODA loans and non-concessional export-credit loans respectively. In Fiscal Year 2015, JICA distributed 37% of its ODA to Southeast Asia and the Pacific and more than half of it went to Vietnam. The region that received the second largest amount of ODA was South Asia and about two thirds of it went to India (see Figure 5). JBIC (Japan's former Exim Bank), however, shows a contrasting lending preference—it was more interested in the "good markets". The region that received the largest amount of JBIC credits in the same year was Europe, and the largest borrower in Europe was the United Kingdom (see Figure 6 Japan bank for international cooperation's investment by region, fy2015, in billions Yen).

A similar lending and aid-giving pattern can be found in Germany, the largest European ODA donor. In Germany the KfW Group handles both ODA and export-credit loans. It has separate divisions that deal with these two types of businesses: the KfW development bank and the DEG that handle development projects, and the KfW-Ipex that handles export credit loans. Ipex is the most profitable division of the KfW. In fact, the KfW Group uses profits generated from Ipex to subsidize other parts of its business that does not necessarily make profits. According to Ipex's annual report, in Fiscal Year 2015, 4.2 billion Euro (24%) loans were lent to projects in Germany, 6.7 billion Euro (39%) went to other parts of Europe, and the rest of the world took up 6.4 billion Euro (37%), of which 4.8 Euro (28%) were lent to emerging markets. In other words, the majority of the credits (63%) stayed within Europe (KfW-Ipex, 2016). The KfW Development Bank and the DEG focus on developing countries and emerging markets, and a certain portion of the capital for those projects (e.g. 2.2 billion euros out of 7.7 billion in 2015) came directly from the Federal Government rather than the bank per se (KfW, 2016). In Fiscal Year 2015, the largest recipients of Germany's development loans are India, Indonesia, and South Africa.[21] That is to say, like Japan, Germany's non-concessional lending also prefers more developed countries than developing ones. For projects in less developed countries, where China's non-concessional lending usually flows to, Germany uses ODA instead.

20 The dataset does not specify whether commercial-bank loans are insured by an official insurance company, and therefore may overestimate the total volume of non-concessional official development-finance loans by including commercial loans.

21 "Global Engagement," KfW, https://www.kfw.de/microsites/Microsite/transparenz.kfw.de/#/start/2015.





Source: JBIC Annual Report 2016

To conclude, the above analysis presents three important features about China's official overseas development finance. First, the main financiers of the projects are the two policy banks. The amount of MOFCOM's foreign assistance is trivial compared to the volume of policy-bank loans. Second, the majority of the loans are not concessional. Only MOFCOM's grants and interest-free loans and Chexim's liangyou loans offer interest rate below market rate, but these grants and loans altogether account for a limited portion of China's total development-finance credits. The major sources of capital are Chexim's non-concessional loans and the CDB overseas loans. Sinosure-covered commercial-bank loans are also an important source but by far their total volume is not as large as that of the policy-bank loans. Third, the destinations of the non-concessional loans are the developing countries, to which lenders from industrial economies usually offer government-subsidized concessional lending or aid/grant only. These three lending characteristics present a dual identity of China's overseas development finance. In terms of their destinations, the loans are aid-like because they target mostly the developing world. However, in terms of the way they are disbursed, these policy-bank loans are more like commercial loans, because their interest rate is non-concessional, either in comparison with foreign loans or with Chinese commercial bank loans.

Why using non-concessional loans for development finance?

Why do China's policy banks use non-concessional loans to finance projects that are traditionally financed by concessional lending of industrial countries? This section first discusses two strands of existing literature, the economic statecraft literature and the developmental state literature. The former sees the state as using commercial actors to achieve non-economic goals; the latter sees the state as coordinating economic development through rational planning. These literatures explain some part of China's development finance, but do not explain the non-concessionality of the loans. The section then puts forward a complementary explanation based on a micro-level examination of the policy banks' lending process, arguing that the Chinese-style development finance is a result of the country's status as a developing country still going through industrialization and urbanization as well as a late comer on the international market. This view also sees the state as pursuing economic development objectives, but unlike the second literature, it highlights the role of the state in credit enhancement and market creation. Further, the section shows that the way Chinese policy banks finance infrastructure projects challenges the existing development-finance paradigm established by industrial countries. Unlike the current norm of aid giving, which channels fiscal revenue from developed countries to developing ones, China conducts development finance not through direct allocation of fiscal revenue, but through enhancing the creditworthiness of projects and making them bankable to the market.

China's economic statecraft

One way of understanding China's overseas development finance is through the lens of economic statecraft. That is, the state uses economic means to achieve geopolitical, diplomatic, security, or strategic goals. The loans were lent to less developed regions because, based on the reasoning of this literature, they are tools of the state to achieve non-commercial goals. In other words, China's policy banks should have invested in more profitable projects or in better-off the regions, but owing to the fact that they had to pursue state objectives, they invested in the less developed regions that are either geopolitically important or have abundant resources.

Analysis based on the reasoning of this literature is often seen in media reports regarding China's infrastructure projects, especially those located in "strategically important" areas. A typical example is a recent acquisition of Sri Lanka's Hambantota Port by the China Merchants Group. Financed by Chexim and beginning operation in 2012, the port ran deficit for years and as a result the Sri Lanka Port Authority had to lease it to the Chinese firm in 2017. Several media reports pointed out that this acquisition might threaten Sri Lanka's sovereignty and affect international relations in the Indian Ocean.[22] "There is the possibility that China militarizes the port and uses it in a discriminatory, exclusive manner," commented Kitaoka Shinichi, political scientist and president of Japan International Cooperation Agency.[23]

The economic statecraft argument is also seen in discussions on China's investment in energy and mining sectors. Norris (2016) defines economic statecraft as the state seeking "to influence the behavior of commercial actors in an effort to achieve the state's strategic objectives", which include security objectives such as securing resource overseas. In his analysis of the CDB, Norris specifies two state organs that could affect the CDB's lending decisions: the State Council, which is China's central government, and the National Development and Reform Commission (NDRC), China's economic planning organ, and argues that the bank is a tool of the state to secure resource overseas.

The economic statecraft theory does a great job in explaining the policy banks' investment portfolio at a macro level. Policy banks, by definition, have to achieve the policy objectives of the state. The CDB has the mandate to finance "infrastructure, basic industries, and pillar industries", and Chexim has the mandate to facilitate the "going global" of Chinese firms of strategic importance. The two banks follow

22 See for example, "Is China's Belt and Road working? A progress report from eight countries," Nikkei Asian Review, https://asia.nikkei.com/Spotlight/Cover-Story/Is-China-s-Belt-and-Road-working-A-progress-report-from-eight-countries; "Sri Lanka, Struggling With Debt, Hands a Major Port to China," the New York Times, https://www.nytimes.com/2017/12/12/world/asia/sri-lanka-china-port.html.

23 "ASEAN 50nen to Ittaiichiro: nihon, jishyu-jiritsu-tōitsushienwo," Nikkei, https://www.nikkei.com/article/DGKKZO23402350T11C17A1KE8000/.

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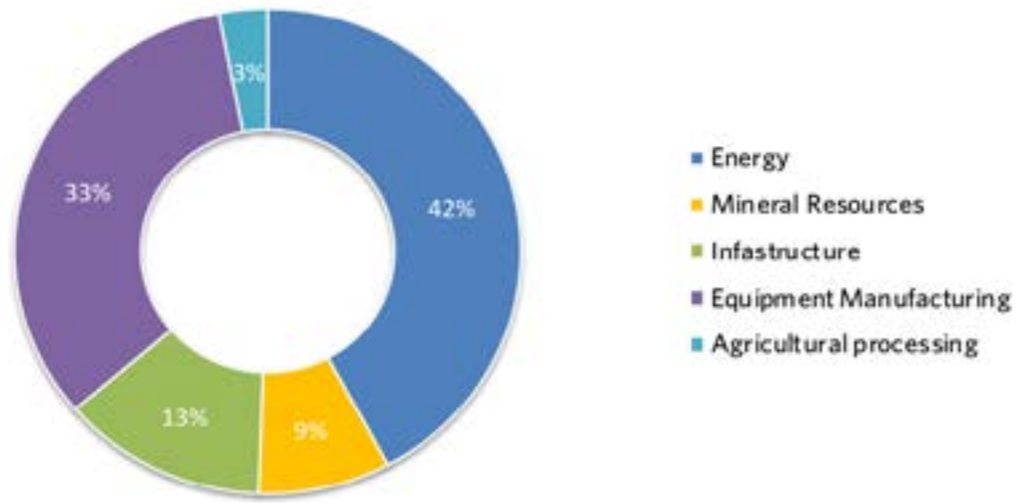
state guidelines when they select industries and projects to finance. By the end of 2014, more than 50% of CDB's overseas lending was to
n disbursement by sector (by



Source: CDB Global Cooperation Business

However, at a micro level there are two issues with this line of argument. The first is who "the state" is and what state interests are. The second is through what channels the state could make an impact on the banks' lending decisions and what happens if the banks' interests conflict with state interests. The policy banks are state-owned and serve state interests, but at the same time they are financial agencies subject to the supervision of China Banking Regulatory Commission. For both policy banks, banking prudence is one of their most important principles. To put it simply, they do not want failed projects or non-performing loans. This does not necessarily align with the non-economic "state objectives", i.e. geopolitics, foreign relations, or security, which are the key interests of specific government organs such as the Ministry of Foreign Affairs (MOFA) and the National Development and Reform Commission (NDRC). When the banks' economic and financial interests conflict with the state's interests, whether these government organs have sufficient power to alter the banks' decisions remains questionable. It is therefore important to examine through what channels "the state" can make an impact on the banks' lending decisions.

A first channel is state ownership, which is viewed by the economic statecraft literature as an important sign of state control. The CDB is a state-owned share-holding corporation and its four shareholders are the Ministry of Finance (MOF), Central Huijin (a sovereign wealth fund), Buttonwood investment platform of the State Administration of Foreign Exchange (SAFE), and the National Council for Social Security Fund. Chexim is not a share-holding corporation and its owners are MOF and the Buttonwood investment platform. First, the fact that these state financial organs own the banks does not mean that they could determine the latter's lending decisions. The reason SAFE became the policy banks' major shareholder in 2015 was to increase the latter's capital adequacy ratio and allow them to lend more. Second, even if these state financial organs attempt to affect the banks' lending using their status as shareholders/owners, it is very unlikely that they force the bank to pursue political, foreign-policy or security objectives, because the former are more concerned about the financial/economic condition of their assets.

A second channel is personal appointment. All top leaders of the policy bank are appointed by the Communist Party, but their work experience before joining the banks reflects the priority of the banks.[24] The CDB has 13 directors (top-level leaders). Three of them are executive directors directly managing the bank, including the head of the bank. All three came from state-owned commercial banks. Four of the directors are government-agency directors from four ministerial-level government organs, i.e. NDRC, MOF, MOFCOM, and the central bank. NDRC has an incentive to implement the state's industrial policies and securing resources, whereas all other government organs are more concerned with monetary, financial, and economic issues. The other six are equity directors from the four shareholders mentioned above. In addition, the bank has a board of supervisors, whose members are directly pointed by the State Council. But according to the CDB annual report and the State Council's Regulation on Board of Supervisors of Main Financial Agencies, the main duty of the supervisors is economic, i.e. to make sure that the bank manages state assets well.[25] The leadership structure of Chexim is slightly different since it is not a share-holding corporation, but it demonstrates similar commercially-oriented features. Both its chairman and vice chairman previously worked at the central bank. The chairman of the bank's board of supervisors came from China Banking Regulatory Commission. All five vice presidents came from financial/economic agencies. In other words, the leadership structure of the two policy banks shows that the banks are more concerned about financial/economic objectives than other ones.

This contrasts greatly with the case of Japan, where there is official, institutionalized channel for the state to influence the financial agencies and achieve non-commercial objectives. In his book on Japan's postwar economic miracle (1982), Johnson describes the phenomenon of "amakudari", which refers to the appointment of a ministry's official to an agency or enterprise supervised by the ministry. JICA is an amakudari destination for the Ministry of Foreign Affairs of Japan. In fact, it was not until 2003 that JICA had its first president who was not from MOFA. Similarly, JBIC was a "territory" of the Ministry of Finance of Japan, and NEXI (Japan's official export insurance company), the Ministry of Economy, Trade and Industry. The personnel transfer not only occurs with top-level leaders, but also to lower-level staff (see for example, Kusano, 2006). This institutional connection allows the ministries to achieve their objectives through coordinating the financial agencies. JICA, coordinated by MOFA, has the mandate to achieve the state's diplomatic goals and increase the presence of Japan through economic means. Unlike the case of Japan, in China there is limited room for ministries to influence the policy banks' lending decisions. The liangyou loans require approval by MOFCOM, but the non-concessional loans do not. According to China's administrative ranking system, policy banks are at least vice-ministerial level agencies.[26] The ranking of top-level policy-bank leaders are not necessarily lower than the government officials (with the only exception of ministers).

Another channel for the state to influence the bank is Gaofang, top-level leader visit. Usually when top leaders of China visit another country, they would facilitate economic cooperation between the two countries. An example is the China-Pakistan Economic Corridor (CPEC). The economic cooperation plan, which would build a collection of infrastructure projects throughout Pakistan, was put forward by China's Prime Minister Li Keqiang during his visit to the country. But such a top-down mechanism cannot be considered entirely state-led and the reason is twofold. First, government only provides a broad framework. On a micro-level each project is implemented by the banks, firms and related agencies, and they all have to go through regular bank appraisal process. Second, many projects existed before the top-level visit. For example, Gwadar Port of Pakistan was built before Li's visit in 2013. In many cases Gaofang reinforces existing projects rather than generating new ones from scratch.

To sum up, economic statecraft theory could explain the two policy banks' investment portfolio on a macro level. But on a micro level, the policy banks have their own economic and financial interests that do not necessarily align with the state's geopolitical or foreign-policy objectives. A close examination on the channels shows that government organs with non-economic mandates can affect the banks' lending decisions only to a limited degree.

China as a developmental state: state-firm nexus

The three direct channels through which the state can direct policy banks to invest in strategically important projects were discussed above. There is also an indirect way to do this, i.e. ministries can coordinate overseas finance through regulating firms. If a Chinese firm attempts to do an infrastructure project abroad, it has to acquire government approvals before requesting bank loans. Without receiving required government documents, banks would not lend to the firms. In most cases these documents are not difficult to acquire, but the procedural requirement gives ministries the power to veto. Through coordinating firms, the ministries can indirectly coordinate the policy banks. This leads to the possibility of using the developmental state literature to explain China's overseas finance. This strand of literature originated from empirical studies on the postwar miracles of Northeast Asian economies such as Japan and South Korea (Johnson, 1982; Amsden, 1989; Wade, 1990; Haggard et al., 1993; Evans, 1995; Woo-Cummings, 1999; Solís, 2004; Thurbon; 2016). Like the economic statecraft literature, the developmental state literature underscores the state's use of economic means in achieving national objectives. What is specific about the latter literature is that it views economic development, rather than security or foreign policy, as the core objective of the state. The

24 Leadership information of the two policy banks can be found on the banks' annual reports.

25 "Guoyou Zhongdian Jigou Jianshihui Zanxingtiaoli," the People's Bank of China, http://www.pbc.gov.cn/tiaofasi/144941/144953/2817209/index.html.

26 Some say the CDB is a ministerial level agency, but this is not confirmed.

developmental state literature also highlights the role of elite bureaucrats' rational planning of economy and their coordination of key sectors, including various industrial sectors and the financial sector. Specifically, the state coordinates the financial sector and channels preferential credits to selected industries and firms.

Two aspects of China's overseas development finance can be explained by the developmental state literature. First, China's development finance is coordinated by elite bureaucracy. Like Japan's Ministry of International Trade and Industry (MITI),[27] characterized by Johnson as the core ministry for Japan's economic planning, China's MOFCOM and NDRC have played crucial roles in coordinating industrial policies and overseas finance. A close examination on banks' lending process reveals the coordinating role of these two ministries.

Chinese contractors (i.e. the companies building infrastructure works overseas) that intend to participate in international tenders must acquire a number of documents from government organs. A first document is a "Support Letter" from the Chinese embassy's Economic and Commercial Chancellor's Office (ECCO) in the country where a tender takes place. The ECCO are the overseas offices of MOFCOM that coordinates business activities in the corresponding country. After receiving the Support Letter, the firm needs to acquire "Letter of Interest in Lending" from Chinese financial agencies and "Letter of Interest in Insuring" from Chinese insurance companies. With these three documents, the firm can apply for a Certificate of Approval to MOFCOM's Department of Outward Investment and Economic Cooperation.[28] The department will evaluate several aspects of the application, such as how well the project follows China's trade policy, what the risk level of the country where the project takes place is, what the firm's past experience doing business in this country is, and how professional the firm is in conducting the proposed project.[29] These regulations give MOFCOM the authority to veto projects. Theoretically, firms can choose not to apply for the Support Letter from ECCO and still participate in international tenders. However, Chinese banks and insurance companies would not provide financial support for firms without those government approvals. Therefore, only if the firm has very sufficient capital can it possibly skip government regulation. But this happens rarely because most international projects need quite a large amount of capital.

In addition to MOFCOM, several other government organs are involved in overseas finance. The NDRC monitors Chinese firms' outward direct investment. If a firm plans to conduct merger and acquisition overseas, it has to register with the NDRC or its provincial-level administrations, otherwise banks would not lend to the firm.[30] The State-owned Assets Supervision and Administration Commission (SASAC) is not directly involved in the lending process but it supervises the economic performance of central enterprises, i.e. how well they manage state assets. MOFA may be involved if a firm tries to do a project in a country that does not have official diplomatic relation with China or is politically unstable, but its presence is relatively weak in comparison with MOFCOM and the NDRC. In sum, Chinese ministries, especially MOFCOM and the NDRC play important roles in regulating overseas development finance.

Again an issue with this line of argument, i.e. the state coordinates firms to achieve economic and developmental objectives, is to what extent the state can really turn down projects if there is a conflict of interests between the ministries and the firms. Like the policy banks, the SOEs have their own commercial interests that do not necessarily align with the developmental objectives of the ministries, and it is rather difficult to differentiate whether the former are truly pursuing state objectives, or using such "developmental and strategic" objectives to justify their commercially-oriented behaviors. Wang (2015) sees the SOEs through a different lens, highlighting the fact that they are pursuing financial interests and managing the assets of what she calls a "shareholding state". "Whatever they do can be called 'pursing national strategy'", said a policy-bank loan manager. In fact, around half of the central enterprises are vice-ministerial level entities, namely, Sinopec, PetroChina, CNOOC, three oil giants actively engaged in international energy investment. Many of the central enterprises were formally ministries themselves, and their personnel appointment is directly managed by the Communist Party (see Li, 2016). As a result, ministries may not have sufficient power to affect these central enterprises' business decisions.

A second aspect of China's overseas development finance that can be captured by the developmental state literature is the fact that capital is channeled to a group of industries and enterprises selected by the state. Most of China's official loans (ODA and OOF) were lent to large firms conducting business in strategic industries. Most of these firms are state-owned central enterprises, i.e. the most important SOEs directly supervised by SASAC. SASAC's 2017 central-enterprise portfolio lists 97 enterprises which are involved in industries relating resources (petroleum, coal, steel, mineral, etc.), electricity, telecommunication, transportation, manufacture, and among others.[31] According

• 27 MITI was later reorganized and became the Ministry of Economy, Trade and Industry (METI).

28 "Duiwai Chengbao Gongcheng Xiangmu Toubiao (Yibiao) Guanli Banfa," MOFCOM, http://www.mofcom.gov.cn/article/swfg/swfgbi/201112/20111207878964.shtml.

29 "Guanyu Zhuwai Jingshang Jigou wei Qiye Banli Duiwai Chengbao Gongcheng Xiangmu Toubiao (Yibiao) Hezhun Yijian de Zanxing Guiding," MOFCOM, http://hzs.mofcom.gov.cn/article/zcfb/a/201612/20161202110143.shtml.

30 More details see "Qiye Jingwai Touzi Guanli Banfa," NDRC, http://www.ndrc.gov.cn/zcfb/zcfbl/201712/t20171226_871560.html.

31 "Yangqi Minglu," SASAC, http://www.sasac.gov.cn/n2588035/n2641579/n2641645/index.html.

to Engineering News-Record, an American magazine that annually ranks largest contractors, among world's top 50 international contractors, nine are from China, and all of them are central enterprises or their subsidiaries (Table 2).[32] According to the CDB, by the end of 2014, the bank has accumulated on-balance foreign-currency loans of 267 billion US dollar. About one quarter of it, approximately $67 billion, is issued by the CDB main bank (as opposed to the CDB's 38 provincial branches), the CDB organ that handles central enterprises' projects (CDB Almanac, 2015).[33] In other words, at least a quarter of the banks' overseas loans were lent to the central enterprises. Of course policy-bank loans are not restricted to state-owned borrowers. Huawei, a Shenzhen-based private-owned telecommunication giant is a long-term partner with the policy banks and has received large amount of loans from them. A commonality that companies like Huawei share with the SOEs is that they are enterprises of strategic importance and fall into the category of selected industries.

With the support of policy-bank loans, Chinese enterprises have a considerable advantage in winning international projects in countries that are in need of large-volume capital for infrastructure. Many project owners/sponsors in developing countries lack the capital to build infrastructure works, and therefore prefer contractors that come with financial packages. In 2006, the CDB offered a $15 billion loan to ZTE to build a mobile network in Ethiopia. The bank's financial package allowed ZTE to acquire this contract and build the first mobile network in the

RANK 2017	RANK 2016	FIRM
3	3	CHINA COMMUNICATIONS CONSTRUCTION GROUP LTD.
10	11	POWER CONSTRUCTION CORP. OF CHINA
11	14	CHINA STATE CONSTRUCTION ENGINEERING CORP. LTD.
21	20	CHINA RAILWAY GROUP LTD.
23	55	CHINA RAILWAY CONSTRUCTION CORP. LTD.
27	**	CHINA ENERGY ENGINEERING CORP. LTD.
31	23	CHINA NATIONAL MACHINERY INDUSTRY CORP.
48	49	CHINA METALLURGICAL GROUP CORP.
50	67	CHINA NATIONAL CHEMICAL ENGINEERING GROUP CORP.

To summarize, the fact that China's overseas development finance (1) is coordinated by ministries (elite bureaucracy) and (2) prioritizes selected industries and enterprises can be explained by the developmental state literature. Nonetheless, the non-concessionality of China's policy-bank loans remains unexplained. According to this literature, preferential lending is an important component of state support. Accessibility to low-cost capital allowed the selected industries and firms to have an advantage when competing with their rivals both at home and abroad. If China had been practicing the developmental state model, it should have largely subsidized the loans of the policy banks, and their interest rates would have been much lower.

Comparing today's China to Japan in the first two postwar decades illustrates this contrast. Japan's overseas development finance was mostly handled by the Overseas Economic and Cooperation Fund (OECF, now JICA) and the Exim Bank of Japan (now JBIC), two public financial agencies in charge of ODA loans and export credit loans respectively. These agencies received low-cost capital from the Fiscal Investment and Loan Program (FILP), which was a MOF-coordinated program that channeled cheap capital from postal savings to public financial agencies (Park, 2011). The major source of Japan's ODA and export credit capital was the FILP. The OECF and the Exim used low-cost FILP capital to support the exporting and international contracting of Japanese firms. Japan's use of tied ODA loans for commercial purposes was largely criticized by its American and European competitors for violating fair competition, and starting in the 1970s, the OECD multiple times disciplined ODA rules to prohibit Japan from using cheap loans to finance commercially-viable projects. As a result, Japan had to untie its ODA loans and reform its ODA policies since the 1980s (Yasutomo, 1995; Arase, 1995; Moravsick, 1998; Maeda, 2007 and 2010).

32 Firms are ranked according to construction revenue generated outside of each company's home country in 2016 in U.S. $ millions, https://www.enr.com/toplists/2017-Top-250-International-Contractors-1.

33 The CDB's provincial branches are located mostly in the capital or major port city of each province of China. Each branch is assigned a few countries and disburses loans to projects taking place in their assigned countries only. The only department of the CDB main bank that directly disburses loans is the Enterprise Bureau, which is in charge of all projects relating central enterprises.

China's foreign-assistance loans and liangyou loans today greatly resembles Japan's ODA loans in the earlier postwar decades, for which the state used subsidized loans to support firms' overseas ventures. Although an official assistance project is supposed to be government-led and serves developmental purposes, through the lens of Chinese contractors, those aid projects are not so much different from the international tender projects that they do for commercial interest. The only difference is that the sponsor of the former is MOFCOM as opposed to a foreign government agency. Only Chinese firms are eligible to partake in the tenders held by MOFCOM and the grants and loans are used to pay the contractors directly. Chexim's liangyou loans also demonstrate similar commercially driven characteristics. Although requests for liangyou loans can only be raised by a government agency of the borrowing country, in real practice it is often times the Chinese firms that suggest the foreign government to borrow from Chexim. In the eyes of Chinese contractors, those low-interest rate loans are just one type of financial tool that help them win international tenders.

But as discussed earlier, the majority of China's overseas development finance is capitalized by the Chinese policy banks' non-concessional loans, and their interest rates are not necessarily lower than those of Chinese commercial banks and much higher than those offered by their competitors from industrial countries. In other words, if the policy-bank loans are seen as preferential credits, then they are preferential in terms of their size and not their price. The non-concessionality of these loans, therefore, remains unexplained.

REWRITING DEVELOPMENT FINANCE

So what explains the Chinese policy bank's non-concessional lending to the development-finance projects? If economic statecraft theory and developmental state theory only explain part of the story, what explains the rest? This paper points out a crucial factor that is often overlooked in understanding China's development finance. That is, the country is a late comer of the global market and still a developing economy going through industrialization and urbanization despite its massive overseas capital outflow to the infrastructure market. This economic status determines its way of development finance.

Before further elaborating on this argument, it is important to notice that there is a reason we found the association between "commercial lending" and "developing finance" counterintuitive. This counter-intuition comes from two underlying assumptions of the current development-finance paradigm: (1) commercial loans should finance the more profit-generating projects of the better markets; (2) the less developed markets and less profitable projects should be financed by subsidized capital, i.e. preferential credits, soft loans, or grants. Applying this logic to China's development finance, either (1) the non-concessional policy-bank credits should have flown to the better-off markets, or (2) the current projects that the policy banks lend to should have been financed by concessional loans. In other words, non-concessional lending should not be used for development finance in the less developed regions.

The association between concessional lending and development was created by the OECD/World Bank in the first two decades of the postwar era, when decolonization brought to this world a group of "backward" countries. The OECD and World Bank dominate the norms, rules, and means through which countries conduct development finance. In the first decade since its establishment, the International Bank for Reconstruction and Development (IBRD) offered only non-concessional lending to facilitate reconstruction projects, particularly in Europe. It was not until the late 1950s when the notion of concessional loans (soft loans) was put on table and the International Development Association (IDA) was established in September 1960 as part of the World Bank to finance the less developed regions. IDA divided countries into two groups, those that offered capital, the developed, and those that received capital, the developing. The less developed countries could receive concessional IDA loans (see Devesh et al, 1997; Xu, 2017a). This is still how the World Bank Group functions today. Countries with a per capita income below a certain threshold are eligible to apply for IDA loans, which come with terms with greater concessionality, and those with higher income apply for IBRD loans.[34]

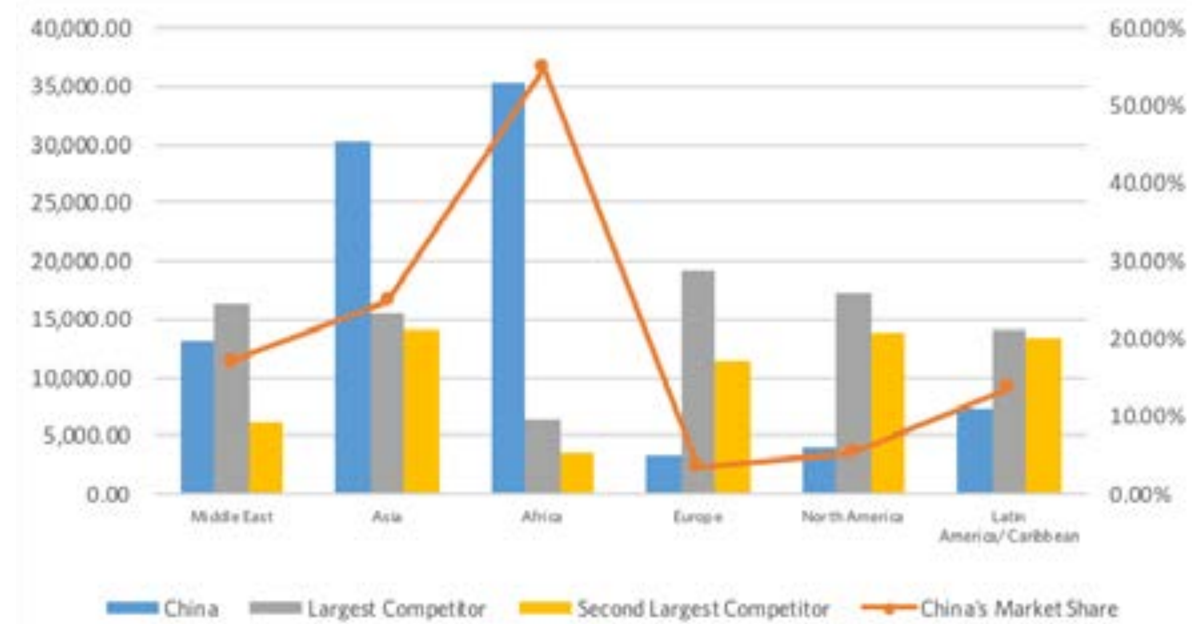
Similarly, the OECD's Development Assistance Group (DAG, later became Development Assistance Committee), mainly consisting of the wealthiest democratic countries in the world, was established in 1960. The DAG's Resolution of the Common Aid Effort adopted in 1961 stated that "while private and public finance extended on commercial terms is valuable and should be encouraged, the needs of some of the less-developed countries at the present time are such that the common aid effort should provide for expanded assistance in the form of grants or loans on favorable terms, including long maturities where this is justified in order to prevent the burden of external debt from becoming too heavy" (OECD, 2006). The OECD-DAC by far is still the major international organization that determines the rules of official development assistance.

This idea that "less-developed countries need loans with favorable terms" contrasts fundamentally with the logic of commercial lending, which charges a higher interest rate on less credible borrowers. The adoption of this idea by the World Bank and the OECD reflected the interests and preferences of the core members of these two international organizations, which were also then the most advanced economies, in two ways. First, these countries could afford offering grants or loans with concessionality – a loan with any level of concessionality implies a transfer of tax payers' money from the donor country to the recipient country. Second, firms of these countries were in general the most competitive ones on the international market. These firms had higher chances winning projects in international tenders, and preferred not to compete with firms backed up by state subsidies, which the former saw as violating principles of fair competition.

Understanding the logic of the current development-finance paradigm paves the way to understanding China's development finance. Why do Chinese policy banks not use commercial lending to finance projects in better-off markets, like the industrial countries do? Geopolitical concerns and access to resources are partial reasons, but there is another straightforward explanation that is often overlooked in the existing literature—the good markets and good projects were "taken" and China simply does not have a comparative advantage at those markets. A common view shared by the policy banks' lending managers and Chinese firms engaged in international infrastructure market is that Chinese firms are not necessarily competing with foreign firms in the "good markets"; rather, in more cases they are competing with their Chinese peers on the relatively less developed markets. Figures in the earlier section show that China's policy banks are mostly targeting middle-income developing countries, whereas its counterparts in Japan and Germany are targeting more advanced markets and uses only state-subsidized ODA loans to finance projects in countries where Chinese policy banks do most of their business (see Figure 3 China's official bank Loans 2000-2014, Figure 4 CDB's and Chexim's lending in energy sector, 2000-2017, Figure 5, and Figure 6 Japan bank for international cooperation's investment by region, fy2015, in billions Yen). This is not entirely a result of economic statecraft. There are resource-rich countries that are economically more developed and politically more stable. JBIC, Japan's Exim Bank that places the "securement of resources" on top of its agenda (JBIC, 2016), lends and invests mostly in advanced economies.

ENR's international contractor data shows that despite its total size, Chinese contractors have limited presences in developed markets such as Europe and North America. In 2015, Chinese contractors' revenue share in the European market was only 3.6% and 5.4% in the North American market. This contrasts largely with the 54.9% in Africa, where China had a dominant market share. China's presence in Latin America and the Middle East were also relatively insignificant. The Asian market was where China really competed, and its competitors were South Korea and Japan (see Figure 8 Revenue of Top 250 International Contractors in 2015, in $million).

These numbers show two important facts about China's overseas development finance. First, China has challenged the existing OECD/World Bank paradigm by largely financing the less developed regions. It has provided loans to regions that were traditionally not attractive to commercial capital from industrial countries. Without China's development finance, these projects would only be financed by limited amounts of development assistance or not financed at all. Second, China's overseas development finance model is also different from Japan's. ... n European and American



34 See for example, World Bank Lending (Fiscal 2017), the World Bank (IBRD-IDA), http://pubdocs.worldbank.org/en/982201506096253267/AR17-World-Bank-Lending.pdf.

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Source: ENR[35]

Then the next question is, if their borrowers are mostly from the less-developed regions, why do Chinese policy banks not offer loans with more favorable terms? Using the OECD/World Bank rationale, borrowers from less developed regions should enjoy certain level of concessionality, so that they have less burden of repayment and fewer debts. The answer lies in China's status as a developing economy, i.e. one that is still going through urbanization and industrialization, and needs capital for its domestic infrastructure construction. According to World Bank's data, China's urban population rate in 2016 is 56.7%, only slightly higher than world average (54.3%). This means a large part of the country is still not urbanized. Despite its strong overseas presence, the CDB still does the majority of its business domestically, financing urbanization and industrialization within China.

In fact, one important reason the CDB was founded in 1994 was to make more efficient use of limited capital and better finance infrastructure and industrial projects. Back in the early 1990s the central government of China had a large fiscal shortage and the policy makers realized the limitation of using direct credit allocation for infrastructure finance. The government therefore established policy banks to finance large-scale infrastructure works. Starting in the late 1990s, the bank went through a series of market-oriented reforms to streamline its lending process and avoid making imprudent investment (CDB, 2013; CDB, 2015; Chen, 2018). The history of the CDB shows that the Chinese government has been reluctant to, if capable of, using direct fiscal allocation to finance infrastructure projects within China in provinces that are still going through urbanization, let alone infrastructure projects in less developed regions in other countries. What is more, the idea of donation was against the initial rationale of creating the CDB, i.e. using market means to make more efficient use of limited capital. Chexim is more acceptable to the idea of using state-subsidized loans, but like the CDB, it is a policy bank relying on self-raised funds through bond issuance on the market. To increase the amount of state-subsidized loans would mean the Ministry of Finance shall allocate more credits to the bank. This, again, would diverge from what China has been doing for the past two decades.

How possible? State involvement for credit enhancement

How have the policy banks managed to finance commercially nonviable projects with loans at commercial rates? After all, the idea seems not plausible and may lead to failed projects. The essence of China's commercially-driven development finance is the use various means of state involvement (e.g. guarantees, coordination, planning) to increase projects' creditworthiness. A commercially viable project would generate sufficient cash flow by itself, and uses such cash flow to repay loans. For example, a power plant that generates electricity can use utility fees to pay back loans borrowed from banks to build this power plant. But in many cases infrastructure projects may not necessarily generate sufficient profits to repay loans. The Hambantota Port discussed earlier was an example. For these projects, the policy banks would require in their process of appraisal an extra level of guarantees to raise the level of credibility of the projects and cover the extra level of risks. The guarantees come from various sources, government, enterprises, insurance companies, and commodities. All of these methods demonstrate either explicit or implicit state involvement in the lending process.

The first source of state guarantee comes from the Chinese side. Policy banks often lend to state-owned enterprises, as discussed earlier in this paper, and the SOEs are often seen as the ones being picked up by the state to receive financial priority. Yet beyond this winner-picking rationale, there is another related, but slightly different reasoning behind the policy banks' lending preference. SOEs are generally viewed as the "more reliable" borrowers in the eyes of loan managers – they believe the state would somehow cover the loss if an SOE project fails. But this kind of guarantee is implicit because there are no formal laws and rules to enforce such a state bailout. Another way to enhance a project's credibility is to ask the project owner to purchase insurance from Sinosure, China's official ECA. In usual cases, having official insurance coverage increases the credit rating of a project and banks would consequently offer lower interest rate loans to the project. In China's case, purchasing Sinosure's insurance also increases a project's creditability, but the most important consequence of having such coverage is not lowered interest rates from banks, but approval from them. In other words, Sinosure coverage can transform a project from non-bankable to bankable and allows it to pass a bank's appraisal review.

Another source of guarantee comes from the borrower country's government. Banks can ask a government agency to use their fiscal revenue as a source of repayment, if the project per se does not generate sufficient cash flow. In fact, the CDB has been practicing this model domestically, i.e. having subnational governments offer fiscal guarantees for their infrastructure projects. But not every borrowing government is willing to provide such a revenue-based guarantee, because this would increase their amount of debt, and may affect their ability to borrow

35 Peter Reina and Gary J. Tulacz, "Seeking Stable Markets," Engineering News-Record, August 22/29, 2016.

from other financial agencies. Furthermore, a government's fiscal capacity is limited, and it cannot guarantee an unlimited number of projects.

So what if the borrowing government does not provide sufficient level of guarantees? As mentioned earlier, the CDB uses bundled loans to conduct portfolio financing, which is a financial technique to solve the creditability issue. In practice, the bank lends to multiple projects at a time, and uses earnings from the more profitable ones to cover losses of the less profitable ones (Zou, 2015; CDB, 2016; Xu, 2017b; Chen, 2018). But to be able to finance several infrastructure projects at a time, the bank must have sufficient capital. That is why this method is usually practiced by policy banks only, and not by commercial banks. One thing to noticed is that portfolio financing is not only a financial innovation. State coordination is not negligible in the process. In order to group multiple projects into a bundle, the bank has to coordinate with the government of the borrower country and plan ahead of time.

In addition, the policy banks also use commodity-backed loans for borrowers that lack the capacity to repay loans with capital. This method requires an even higher degree of coordination. It not only involves the policy banks and the borrowing government, but also contractors that build infrastructure works as well as firms that purchase commodities or resources from the borrowing country. A widely known example is the CDB's oil-backed loans to Venezuela, which has drawn much scholarly and media discussion (e.g. Downs, 2011; Gallagher et al, 2012; Sanderson and Forsythe, 2013; Bräutigam and Gallagher, 2014). In 2007, China and Venezuela jointly established a fund, where the CDB lent $4 billion and the Venezuelan Economic and Social Development Bank (BANDES, Venezuela's development bank) invested $2 billion.[36] The mechanism of oil-backed lending consists of two parts. The first part is international contracting. The CDB's loans to the joint fund were used to pay Chinese contractors that built infrastructure works in Venezuela. The second part is oil-backed repayment. Since the Venezuelan government did not have sufficient fiscal capacity to pay back CDB loans, the CDB signed a contract with PDVSA, a Venezuelan state-owned oil and natural gas company. The deal was, PDVSA sold oil to Chinese state-owned oil companies, the Chinese companies paid for the oil to a CDB account, and the payment from Chinese companies was used to repay the CDB loans owed by Venezuela. In essence, the CDB was using Venezuela's future oil revenue to repay the loans, and China was offering infrastructure in exchange for Venezuela's oil. This model is therefore dubbed the "infrastructure-for-oil" model.

The story was often depicted as an evidence for economic statecraft theory, i.e. China uses its financial agency (the CDB) to secure energy overseas and strengthen political tie with borrowing countries. This is true, but there is also another aspect of the story that is often overlooked, that is, from the lender's perspective, the oil serves as a type of collateral, which allows the commercially nonviable infrastructure projects in the less developed regions to take place. The CDB was not the first Chinese bank that practiced this model. Chexim's oil-backed lending to Angola in 2004 was named "the Angola Mode" by the World Bank (Foster et al, 2009). Even before 2004, China had been offering oil-backed loans to Republic of Congo and Sudan (Liu, 2011). What is more, the commodities and resources that were used for repayment were not restricted to oil. China's loans to Africa in the 2000s were repaid by various commodities including chromium (Zimbabwe), copper (D.R. Congo), cobalt (D.R. Congo), iron ore (Gabon), Bauxite (Guinea), and even cocoa (Ghana) and peanut oil (Senegal) (Liu, 2011; Bräutigam, 2009).

The CDB was very proud of its infrastructure-for-oil model for achieving multiple objectives at a time – facilitating exportation of Chinese firms, securing energy and resource for the state, and bringing to the developing world infrastructure works (Chen, China Finance, 2011). The same model, however, was largely criticized as failed investment, when oil prices dropped dramatically in the recent years and as a result Venezuela could not repay its debts. The purpose of this paper is not to make a positive or negative evaluation of this model, but to point out the fact that these controversies revealed the essence of this model, which is also the core idea of all the above mentioned methods that the policy banks use to finance infrastructure. Trust in SOEs, Sinosure coverage, portfolio financing, and commodity repayment all serve as guarantees or collateral that strengthen the creditworthiness of non-bankable projects in countries without sufficient fiscal revenue and affluent capital. These financing methods involve risks from their original design, because the policy banks are essentially using the state's credit support to cover extra risks of projects that should not have passed banks' appraisal according to market standard. Nonetheless, it allows the less developed countries that have neither sufficient fiscal revenue nor attractiveness to commercial capital to borrow money and build infrastructure projects that are fundamental for development and growth. In this process, the role of the state is not directly allocating fiscal revenue, but providing guarantees and coordinating various agencies to raise the creditworthiness of the projects and make them "bankable" to the market.

Conclusion: policy banks and the Chinese-style development finance

36 "Yu Woguo Zhu Weineiruila Dashiguan Jingsancanchu Wangyong Canzan Wangshang Jiaoliu," MOFCOM, http://shangwutousu.mofcom.gov.cn/article/lbqz/lbzn/200911/20091106631648.shtml.

The non-concessionality of Chinese policy-bank loans challenges the conventional wisdom that development finance should be conducted in a charitable manner. The existing literature on economic statecraft and developmental state could explain China's overseas development finance partly, but could not explain the terms of the loans. Through examining the lending process of the CDB and Chexim, this paper shows that China, as a late comer of the international market and an emerging developing economy, has put forward an alternative form of development finance.

Unlike conventional official assistance, which essentially transfers tax payers' money from donor countries to recipient countries, the policy-bank loans come with limited degree of concessionality and downplay the role of "donation". These loans also differ from tied aid, which uses state subsidized low-cost capital to raise the international competitiveness of selected enterprises. Chinese contractors are targeting less the market where investors from industrial countries are normally interested in. Rather, they are targeting more the developing market and frequently compete with their compatriots.

The policy-bank loans, instead, demonstrate new means of state involvement in development finance. The state facilitates development finance through neither direct fiscal allocation nor subsidization, but credit enhancement. Loans are appraised and disbursed in a market-driven manner, but the credibility of borrowers and projects are raised by various forms of government-coordinated guarantees and collateral. This allows many developing countries, which (1) lack the fiscal capacity to finance infrastructure, (2) are not attractive to commercial capital, and (3) receive insufficient amount of aid or concessional lending from traditional donors, to be able to finance infrastructure projects that are essential for development and growth. Such a "state supported, market based" means of development finance has challenged the existing development-finance paradigm and provided an alternative option for developing countries in need of capital.

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