

THE CENTER FOR
INTERNATIONAL
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Policies Governing
China's Overseas
Development Finance
*Implications for
Climate Change*

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Abstract

China's foreign direct investment began to grow in 1999, and gained further momentum when President Xi Jinping launched the Belt and Road Initiative (BRI) in 2013. China is now the largest investor in least-developed countries, in developing Asia, and the fourth-largest investor in Africa. Motivated by concerns about the carbon consequences of China's overseas investments, this paper identifies and evaluates Chinese policies governing China's overseas investments, and focuses particularly on how those policies influence environmental outcomes in recipient countries. Policies governing domestic investments are also examined with a view to clarifying inconsistencies between domestic and overseas policies.

Acknowledgements

The authors wish to thank (in alphabetical order) the following for their useful comments and suggestions on this discussion paper: Kevin Gallagher, Tim Stumhofer, Wang Tao, Vance Wagner, Fang Zhang, Zou Ji.

In addition, we gratefully acknowledge financial support from ClimateWorks Foundation, the William and Flora Hewlett Foundation, and BP International Ltd.

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1. Introduction

With the inception of the “Going Out” policy in 1999, Chinese overseas foreign direct investment (FDI) began to grow. The trend gained further momentum when Chinese President Xi Jinping launched the Belt and Road Initiative (BRI) in 2013 and when Premier Li Keqiang stressed the importance of “global cooperation in production capacity” at the OECD meeting in 2015.¹ As of 2017, the BRI is now enshrined in the Chinese Communist Party’s Constitution (CCP 2017), and China is now poised to become the largest source of foreign direct investment and overseas development assistance in the world. According to the United Nations Conference on Trade and Development (UNCTAD), foreign direct investment (FDI) is, “an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor.”² Overseas development assistance (ODA) is provided by official government sources, administered with the promotion of the “economic development and welfare of the developing countries as its main objective,” and is concessional in character (and conveys a grant element of at least 25 percent) (OECD 2018).

China’s overseas investment flows hit a record \$183 billion in 2016, second only to the United States and representing a 44 percent increase over the previous year (UNCTAD 2017). In terms of overall stocks of FDI, China is also second only to the United States with \$4.7 trillion compared with the U.S. investment of \$6.4 trillion.³ In terms of FDI stock, China is the largest investor in least-developed countries, the top investor in developing Asia, the third-largest investor in Russia, Eastern Europe, and Central Asia, and the fourth-largest investor in Africa (UNCTAD 2017).⁴ For energy-specific projects, Chinese-led policy banks invested \$160 billion in overseas finance for the energy sector since 2000, nearly equaling total energy finance from the World Bank and regional development banks during the same period (Gallagher, K.P. 2017). Eighty percent of China’s overseas energy investments are in fossil fuels compared with only 3 percent in solar and wind, and 17 percent in hydro (ibid).

Although there are undoubtedly economic and development benefits created for Chinese investors and host countries deriving from China’s substantial FDI, there is growing controversy over the significant social and environmental impacts of China’s overseas investments. Protests from local communities have sometimes derailed multi-billion-dollar contracts, as shown in the case of the Myitsonne hydropower project on the Irawaddy in Myanmar (International Rivers 2017) as well as numerous mining and hydropower projects in Latin America (Ray et al. 2017). While local communities have protested the localized environmental effects of certain investment projects, broader concerns about the greenhouse-gas emissions (GHG) resulting from new long-lived

1 <http://www.oecd.org/china/keep-development-in-focus-and-create-prosperity-for-all-speech-by-chinese-premier-li-keqiang.htm>

2 [http://unctad.org/en/Pages/DIAE/Foreign-Direct-Investment-\(FDI\).aspx](http://unctad.org/en/Pages/DIAE/Foreign-Direct-Investment-(FDI).aspx)

3 These figures include China, Hong Kong, and Macao.

4 Detailed data from UNCTAD 2017: pages 44, 49, 57, 64 and 79.

infrastructure projects that could last 50-75 years for a new power plant, for example, are also emerging. In addition, concerns have emerged about debt sustainability as well as geopolitical and national security issues (e.g. the Sri Lankan Hambantota Port in the Straits of Malacca, which was financed primarily by Chex-Im and then in 2017 leased by the Sri Lankans for 99 years to China).⁵

In 2013, the World Bank decided to limit its investments in coal-fired power plants after determining that there were many other technologies available that could increase access to electricity and ameliorate poverty. Most of the other multilateral development banks have since developed similar policies to limit financing for coal, but commercial banks largely do not have similar restrictions. In 2015, a new negotiated agreement for export credit agencies (ECAs) sharply limited the types of coal-fired power plants that could be financed to those that could meet CO₂ performance requirements was adopted at the OECD (OECD 2015). All OECD export credit agencies, such as KfW IPEX-Bank which is a part of Germany’s KfW Group, are now governed by this agreement (KfW 2018).

Unlike the main foreign multilateral development banks and OECD ECAs, which have policies restricting investment into coal-fired power plants, China’s policy banks, specifically the China Development Bank and China Ex-Im Bank, and state-owned commercial banks like the Industrial and Commercial Bank of China still actively lend for coal-fired power plants. While China’s policy or state-owned commercial banks have never formally limited their investments in coal-fired power plants, the Chinese government did state that, “China will strengthen green and low-carbon policies and regulations with a view to strictly controlling public investment flowing into projects with high pollution and carbon emissions both domestically and internationally” in the context of a 2015 U.S.-China Joint Statement on Climate Change at the Presidential level.⁶ Of course, recipient countries could limit new coal power plant construction through their own domestic energy, air quality, water, and climate policies.

In a recent study, we determined that between 2001 and 2016, Chinese financial institutions supported the construction of more than fifty coal-fired power plants abroad that were either under construction or operational (Gallagher, K.S. 2016). A majority of these power plants (58%) used sub-critical coal technology, which is the most energy *inefficient* form of coal-fired power plant, and therefore the type that is most carbon intensive. We then estimated that on an annual basis, this fleet of more than fifty coal-fired power plants would release nearly 600 million metric tons (MMT) of carbon dioxide per year, which is equivalent to 11% of total U.S. emissions in 2015 and 6% of total Chinese emissions in 2014. If a conservative 30-year lifetime of these plants is assumed, these plants will cumulatively emit 17,828 MMT CO₂, equal to more than triple total U.S. emissions in 2015, 1.5 times Chinese emissions in 2014, or slightly more than U.S. and Chinese emissions put together on an annual basis.

5 https://en.wikipedia.org/wiki/Magampura_Mahinda_Rajapaksa_Port

6 <https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/us-china-joint-presidential-statement-climate-change>

Today, China's outward investment is more diversified as companies shift their focus from primarily seeking natural resources toward creating a global strategic presence in multiple industries including infrastructure, real estate, high-tech, and information and communications (CCAG and CASS 2017). Conventional energy production is still one of the focus areas for investors, however, and more recent data indicates that Chinese banks and companies may be involved in as many as 79 coal fired generation projects worldwide as of 2017 (Walker 2016). The risks of environmental degradation and pollution are particularly high for investments in countries along the Belt and Road, where the natural environment is vulnerable, resources are already under stress, and environmental governance underdeveloped.

According to official Chinese government sources, China's BRI is motivated by China's desire to "promote orderly and free flow of economic factors, highly efficient allocation of resources, and deep integration of markets by enhancing the connectivity of the Asian, European, and African continents and their adjacent seas" (State Council 2015). This paper makes no assumptions about China's underlying strategic motivations. Instead, it is intended to clarify the governance structure that would help to reduce the environmental risks of China's overseas investments, and ideally foster green development. We specifically focus on the climate change risks associated with Chinese overseas investments, but the paper initially examines China's broader approach to socially-responsible investments.

Our main conclusion is that while the governance system for overseas investments has generally matured in recent years, the policies governing the environmental dimensions of China's FDI are still relatively weak and mostly voluntary in nature. The Chinese government has worked hard to streamline the overseas investments approval procedures and has shifted its emphasis to post-investment monitoring and supervision. We further conclude that China's overseas investment policies are inconsistent with the domestic policies, with domestic policies being more environmentally conscious than overseas policies.

We begin this paper by providing a "who's who" in China's overseas investment landscape. Next, we examine China's regulatory structure and main policies for overseas investments to clarify who has authority for approving which types of outbound investment, which government agencies are relevant, and how the structure has changed over time. We then examine China's policies to encourage socially-responsible investments and its efforts to "green" its banking system. A detailed comparison of China's policies governing overseas investments with those that govern domestic investments is then provided to elucidate the extent to which they diverge. Conclusions and policy recommendations are provided at the end of the paper.

In general, references to specific Chinese government regulations, Xinhua reports (official government media), or Chinese media are provided in footnotes, and references to research reports, scholarly literature, and foreign media are provided as parenthetical citations with a bibliography included at the end for further reference.

2. "Who's who" in China's Overseas Green Finance Policy Landscape

Many government ministries and authorities are influential in China's policy landscape regarding green investments. The State Council is the highest executive authority in the administrative branch of China's government. It is chaired by the Premier and includes vice-premiers, state councilors, and ministers of the main government agencies. Large overseas investments over \$2 billion must be approved by the State Council. Other important government entities include the People's Bank of China (PBoC), Ministry of Finance (MoF), National Development and Reform Commission (NDRC), Ministry of Environmental Protection (MEP), China Banking Regulatory Commission (CBRC), and several others who are listed in Table 1. Their specific authorities and responsibilities are provided in Table 1 as well. The interactions among these agencies are described throughout the remainder of this paper.

While the State Council stands out as having strong overall administrative authority, it is important to acknowledge that the role of the Chinese Communist Party in China's policy process cannot be understated. The CCP controls the appointments of top government officials, and is explicitly embedded in every government ministry. Constitutionally, the National People's Congress (NPC) is the highest organ of state administration, and theoretically it supervises the work of the State Council and Supreme People's Court. The heads of these entities technically must be approved by the NPC. But, this constitutional arrangement belies the fact that the head of the NPC is actually ranked third in the Party hierarchy, after the President and Premier. Indeed, the preamble of the State Constitution states that the work of the Chinese people will take place "under the leadership of the Chinese Communist Party" (Gallagher and Xuan 2018).

An introduction to the key Chinese research institutes or study groups involved in the study of Chinese overseas development investment, and specifically its environmental characteristics is also provided in the Appendix. Most, but not all, of the think tanks and study groups that are specifically focused on these issues have been constituted since 2014. Many of these groups have a particular focus in their research on green finance, but they also closely collaborate with each other. The Green Finance Committee (GFC) of China Society for Finance and Banking, for example, was established in 2015 with the approval of the People's Bank of China. It plays a role in steering and coordinating the research areas of different study groups, which are often its member institutions. For instance, GFC commissioned the Urban Finance Research Institute under the Industrial and Commercial Bank of China to study the impact of environmental factors on the credit risks of commercial banks, and requested Beijing Environmental Exchange to convene a working group on carbon finance.

Table 1: Key Government Agencies With Authorities for Overseas Finance

Government Agency	General Responsibilities
State Council	The State Council is China's highest government authority. It is chaired by the Premier and includes vice-premiers, state councilors, and ministers. It "exercises the power of administrative legislation, the power to submit proposals, the power of administrative leadership, the power of economic management, the power of diplomatic administration, the power of social administration, and other powers granted by the NPC and its Standing Committee". The State Council directly oversees state ministries and special organizations, including the National Development and Reform Commission, Ministry of Environmental Protection, Ministry of Commerce, and the China Banking Regulatory Commission, among others. Large overseas investments over \$2 billion must be approved by the State Council.
The People's Bank of China (PBoC)	The PBoC is the central bank of the People's Republic of China. It is responsible for developing and implementing monetary policy. It drafts laws and regulations to support the growth and health of China's financial sector.
The Ministry of Finance (MoF)	Responsible for macroeconomic policymaking and administration of the state's budget, drafting of financial and tax policy, and management of funds that would be available to develop the strategic emerging industries.
National Development and Reform Commission (NDRC)	Researches and coordinates national economic and social development strategies. Releases annual and long-term development plans in a range of areas including industrial production and output, supply and demand, and resource allocation. It formulates key policies and laws related to China's economic development, in addition to managing key infrastructure projects. This agency makes medium and long-term plans for the "going out" strategy, in addition to developing regulations and standards for China's overseas investment and domestic energy sector. It is responsible for examining and approving major overseas investment projects, and projects that consume a substantial amount of foreign currency.
The Ministry of Environment Protection (MEP)	Formerly the State Environmental Protection Administration (SEPA), the Ministry of Environmental Protection gained ministry status in 2008. Its role is to supervise and oversee environmental quality issues on a national and local level. The ministry is responsible for developing and implementing national standards and laws on environmental protection. Responsible for developing and implementing national policies, laws, and regulations for environmental protection. MEP will become the Ministry for Ecological Environment.
China Banking Regulatory Commission (CBRC)	The China Banking Regulatory Commission issues rules and regulations governing China's banking sector. The Commission aims to promote financial stability, encourage financial innovation, and enhance the competitiveness of the Chinese banking sector. Responsible for formulating supervisory rules and regulations governing banking institutions and for administering the supervisory boards of the major state-owned banking institutions. Issued Green Credit Guidelines.

Government Agency	General Responsibilities
China Securities Regulatory Commission (CSRC)	Performs a unified regulatory function, according to the relevant laws and regulations, and with the authority of the State Council, over the securities and futures market of China, maintains an orderly securities and futures market order, and ensures a legal operation of the capital market.
China Insurance Regulatory Commission (CIRC)	CIRC is authorized by the State Council to conduct administration, supervision, and regulation of the Chinese insurance market, and to ensure that the insurance industry operates stably in compliance with the law.
Ministry of Commerce (MOFCOM)	Regulates both domestic and foreign trade, works to attract foreign investment, and helps Chinese companies invest abroad. Manages trade policy and administrative functions, particularly regarding implementation of trade agreements. Formulates strategies for developing domestic and foreign trade and investment. Promulgates laws and regulations governing domestic and foreign trade, foreign direct investment in China, and international economic cooperation. Responsible for administering China's foreign trade, economic cooperation, and foreign investment.
State-owned Assets Supervision and Administration Commission (SASAC)	Responsible for managing SOEs, appointing top officials, creating laws governing SOEs, and guiding the reform and restructuring of SOEs. It oversees the performance of the SOEs who conduct overseas investments, including development and issuance of regulations or guidance that require SOEs to report environmental and social performance.
State Administration of Foreign Exchange (SAFE)	An affiliated institution of People's Bank of China, this is a national bureau under the State Council. It is responsible for supervision and management of China's foreign exchange. SAFE provides approval of foreign exchange once a proposed overseas project receives the approval required.
Ministry of Foreign Affairs (MFA)	Plays a relatively limited role with emphasis on consultation with other ministries, communication and coordination. It is a co-issuer of some of the major overseas investment policies issued recently.

3. China's Regulatory Structure for Overseas Investment

The approval process for outbound FDI by Chinese companies, involving multiple government agencies, used to be slow, complicated, and lacking in transparency. For large state-owned companies, however, the process may have been more straightforward in the past because of preferential government treatment and financial support from state-owned banks (Backaler 2014). In line with the current Chinese leadership's pledge to simplify governance and decentralize power as well as with China's "Going Global Strategy," China's outward investment regime has undergone a drastic overhaul since 2013 to streamline the approval process.

Prior to 2013, the Chinese government focused supervisory attention on ex ante "verification" and "record-filing" but neglected post-investment monitoring. Regulation was dispersed across agencies and the administrative capacity of those agencies to regulate overseas investments was limited. Meanwhile, the types of outbound investments were diversifying faster than the government agencies could keep up.⁷ Starting in 2017, a slew of policies with new administrative measures have been introduced to expand the coverage and time frame for overseeing outbound investments, and the Central Leading Group for Deepening Overall Reform called for improved regulation of overseas investments.

As of early 2018, businesses in China seeking to make investments abroad are subject to filing requirements with both the National Development and Reform Commission (NDRC) and the Ministry of Commerce (MOFCOM), or their respective local counterparts. Pre-approval confirmation is no longer required before making an overseas investment. Once completing the required NDRC and MOFCOM filing procedures, investors also need to register their foreign exchange for their outbound investments with banks that have already obtained relevant qualifications from the State Administration of Foreign Exchange (SAFE) so that they can handle the exchange of funds.⁸ Outbound investments by domestic financial institutions need to be approved by People's Bank of China (PBoC) and the relevant financial regulatory agency, e.g. China Banking Regulatory Commission (CBRC), the China Securities Regulatory Commission (CSRC) or the China Insurance Regulatory Commission (CIRC), before approaching SAFE for foreign exchange registration. It should be noted that while SAFE has issued several regulations regarding foreign exchange management in outbound investments, it is still controlled by PBoC and expected to fulfill tasks, including foreign exchange administration, assigned by PBoC.⁹

The State-owned Assets Supervision and Administration Commission of the State Council (SASAC) announced in January 2017 that it would publish a "negative list" which would clarify which types of projects the 102 top state-owned enterprises (SOEs) would be prohibited from investing in overseas. This list was finalized later in 2017, but has not been made public. A news report from Chinese CCTV stated that the top SOEs are prohibited from investing in real estate, iron ore, petroleum, and non-ferrous metals (Debrau 2017). Overseas investments involving SOEs that fall into the "negative list" formulated by SASAC are required to obtain approval from SASAC (Riemenschneider and Li 2018). The Ministry of Finance also stepped up scrutiny of the financial viability of the overseas investments of SOEs in 2017 (Li 2017).

Table 2 summarizes the approval processes for different categories of overseas investments based on the nature and/or size of the proposed investment.¹⁰ Given that the majority of overseas investments made by Chinese enterprises do not involve sensitive countries/regions or industries, evidently 98 percent of investments only needed to file an ODI transaction with MOFCOM in advance of making the actual investment as of 2014.¹¹ Definitions of sensitive countries and sensitive industries are provided in Chart 2, and these descriptions were updated in 2017.

For investments that still require government approval, both NDRC and MOFCOM must take into consideration their potential impact on national security, economic interests, compliance with international treaties, and the sensitivity of the industry, while NDRC will also consider the company's compliance with domestic industrial policies. Generally speaking, NDRC will pay more attention to the economic power, investment direction, and compliance with relevant regulations of investors, whereas MOFCOM will focus on the actual situation of the foreign companies to be purchased or overseas activities of the Chinese investor (Hu 2012).

7 <http://www.mofcom.gov.cn/article/ae/ag/201801/20180102703857.shtml>

8 [http://www.safe.gov.cn/wps/wcm/connect/618a258048ab364caa26bf80ba1608cc/国家外管总局公告\(2015_3\).pdf?MOD=AJPERES&CACHEID=618a258048ab364caa26bf80ba1608cc](http://www.safe.gov.cn/wps/wcm/connect/618a258048ab364caa26bf80ba1608cc/国家外管总局公告(2015_3).pdf?MOD=AJPERES&CACHEID=618a258048ab364caa26bf80ba1608cc)

9 http://www.gov.cn/test/2005-06/30/content_11401.htm

10 <http://www.ndrc.gov.cn/zcfb/zcfbl/201404/W020140410560098013507.pdf>

11 <http://www.mofcom.gov.cn/article/i/dxfw/gzgd/201410/20141000773143.shtml>

Table 2: Approval Processes for Different Categories of Overseas Investments in China

Sensitivity	Amount of Investment	Approval Procedure
Investment projects in “sensitive countries and regions” and in “sensitive industries” ^A	Regardless of the volume of investment funds	Requires NDRC and MOFCOM approval.
Not in “sensitive countries and regions” or “sensitive industries”; Investments proposed by centrally administered state-owned enterprises or local enterprises	Equal to or more than US\$300 million	Requires an online filing process to be completed with NDRC (taking 7 work days if provided with all required documentations) and MOFCOM (taking 3 work days).
Investments proposed by local enterprises	Less than US\$300 million	Requires an online filing process to be completed with provincial counterparts of the NDRC and the MOFCOM.
Investments conducted by overseas enterprises controlled by Chinese companies in non-sensitive categories	Equal to or more than US\$300 million	The domestic parent company shall inform NDRC about the investment.
Investments by SOEs in projects in the negative list published by SASAC subject to special regulation		Requires SOEs report to SASAC for special review.
Investments by financial institutions		Banks, securities and insurance companies shall seek approval from PBoC and also respectively from CBRC, CSRC and CIRC. Investments by financial institutions also need to be filed with the NDRC.

Sources: Various policy documents from relevant ministries

A According to the NDRC Measures issued in 2014, “sensitive countries and regions” include countries which have no diplomatic ties with China or are subject to international sanctions, together with other countries or regions in war or turmoil, and “sensitive industries” include the operation of basic telecommunications business, the development and use of transboundary water resources, large-scale land development, power transmission grids and networks and news media. According to the MOFCOM Measures issued in 2014, “sensitive countries (regions)” are defined as those “with no diplomatic relationships with China, subject to United Nations sanctions or other countries (regions) designated by MOFCOM when necessary” and “sensitive industries” as “industries involving products or technologies the exportation of which is restricted by China, or where more than one country (region) has an interest.” In comparison, the MOFCOM definition is more vague with regard to the scope of restricted projects.

The record-filing system is now the main means of tracking and managing outbound investment (Xinhua 2016), but documentation required in the filing process may be continually adjusted due to regulatory needs. For instance, after PBoC, NDRC, SAFE and MOFCOM issued a joint statement to authenticate outbound investments at the end of 2016,¹² a “Statement of Guarantee on the Authenticity of Information Submitted” was required in the filing process.¹³ MOFCOM and other regulatory agencies also plan to supplement the filing and approval process with a “encourage development + negative list” so as to effectively guide and regulate the types and directions of outbound investment (MOFCOM et al. 2018). As of February 2018, this list had not been published.

New signals as of early 2018 indicate a shift of regulatory attention and resources from pre-investment review to enhanced monitoring and supervision during and after the investment transactions. According to the updated Administrative Measures for Overseas Investment by Enterprises issued by the NDRC in December 2017, all Chinese enterprises are required to report project completion and major incidents through a nationwide online platform established by NDRC. NDRC will then monitor the operation of overseas investments via information submitted to this online system, proactively request interviews or carry out random inspections. It will also maintain and publish a “blacklist” of all domestic investors who have been found to have violated the New Measures in relation to overseas investment activities (NDRC 2017).

A similar monitoring mechanism is proposed in the Interim Measures for the Reporting of Outbound Investments Subject to Record-filing or Approval jointly released by MOFCOM, PBOC and five other government agencies in January 2018. According to the new rules, authorities governing different categories of outbound investments will integrate and share investment application information and regular project progress reports submitted by companies through an online platform for the purpose of joint monitoring and effective intervention. Prompt notification shall be given to the competent authority in case of any adverse events or unexpected safety accidents. In addition, as part of interim and ex-post supervision, MOFCOM will take the lead to randomly inspect actual investments to ensure the authenticity, completeness, and timeliness of reports provided by the investors in the filing process (MOFCOM et al. 2018). It will take time to build these online monitoring systems and it is yet unknown whether they can effectively control or motivate behaviors of outbound investors, but this shift in approach to ex-post investment constitutes a major change in the government’s regulation of overseas investments and a further step to guard against various risks underlying these investments.

12 http://epaper.21jingji.com/html/2016-12/28/content_53591.htm

13 <http://www.stcn.com/2017/0721/13506470.shtml>

4. China's Policies Encouraging Socially-Responsible Overseas Investment

According to the 2016 Statistical Bulletin of China's Outward Foreign Direct Investment jointly issued by MOFCOM, NBS and SAFE, by the end of 2016, China's ODI stocks in the leasing and commercial services, financial, wholesale and retail, mining, and manufacturing industries accounted for 80 percent of the total.¹⁴ Mining and manufacturing accounted for 20% of the 80%. The latter two sectors, by their very nature, may cause substantial environmental harm. Mounting concerns about the environmental practices of Chinese companies operating overseas have caused the Chinese government to issue a series of policies and initiatives in recent years, calling on its companies to observe better environmental practices as they invest overseas.

In examining these policies, it is important to clearly state upfront that, as of early 2018, no formal law regulating environmental protection in China's overseas investments existed. In most of the relevant policies reviewed in this paper, environmental protection is briefly mentioned in one or two Articles as one of many obligations to be observed by Chinese firms operating abroad. As a general matter, Chinese companies are required to comply with host country environmental regulations. The main regulations governing Chinese overseas investments are listed in Table 3, and these include the regulations that encourage social-responsible investments.

14 <http://fec.mofcom.gov.cn/article/tjsj/tjgb/201709/20170902653690.shtml>

Table 3: Major Regulations Governing Chinese Outbound Foreign Direct Investment

Year	Issuing Agency	Policy Title	Notes
2018	MOFCOM, PBOC, SASAC, CBRC, CSRC, CIRC and SAFE	Interim Measures for the Reporting of Outbound Investments Subject to Record-filing or Approval ^A	The Measures require government departments overseeing different types of overseas investment to share information collected in the filing/approval process through an online platform and jointly handle violations. A "encouraged development + negative list" is proposed to be compiled to guide the direction of overseas investment. The Measures identify the key investment areas that need to be supervised and require regular reports by all investors as well as random spot checks by the regulators.
2017	NDRC	Administrative Measures for Enterprise Outbound Investment (Order No. 11) ^B	The Measures further simplify and streamline procedures governing Chinese outbound investments, but expand the scope of projects and investment entities subject to NDRC scrutiny. Measures are also introduced to enhance post-approval and filing supervision. For instance, violations may be announced online and reported to nationwide credit databases and other authorities for joint disciplinary sanction.
2017	State Council	Further Guiding and Regulating the Outbound Investment Direction	The State Council has approved NDRC, MOFCOM, PBoC, and MFA guidelines on overseas investments and classifies them into three categories: encouraged, restricted, and prohibited (see Chart 1).
2017	NDRC, MOFCOM, PBOC, MFA, ACFIC	Regulations on Outbound Investment and Business Activities of Private Enterprises ^C	Private firms are requested to undertake environmental impact assessments for their overseas construction and business operation, to apply for environment related permits from the host country, or refer to standards of international or multilateral organization conducive to the ecological development of host countries, to develop contingency plans for environmental emergencies, to reduce the emission of pollutants through clean production, and also to actively engage in ecological restoration.

Year	Issuing Agency	Policy Title	Notes
2017	MEP, MFA, NDRC and MOFCOM	Guiding Opinions on Promoting Green Belt and Road ^D	The Plan identifies key principles and tasks for achieving eco-environmental protection under the Green BRI but lacks specific measures for compliance.
2014	MOFCOM	Measures for the Management Outbound Investment Regulations ^E	The Measures require overseas enterprises to strengthen the consciousness of risk and responsibility, observe the laws and regulations of the investment destination, respect local customs, perform social responsibility, and take responsibility for environment protection, labor protection, and cultural protection so as to better integrate with the local society. The Measures instruct MOFCOM to promulgate environmental protection guidelines for enterprises operating overseas.
2014	NDRC	Administrative Measures for Approval and Record-filing on Overseas Investment Projects (Order No. 9) ^F	The 2014 Measures streamline and simplify the regulatory and approval process for Chinese outbound investments, and delegate significant power to the NDRC at the provincial level. Updated and replaced by the December 2017 update.
2013	MOFCOM, MEP	Guidelines for Environmental Protection in Foreign Investment and Cooperation ^G	The Guidelines require all Chinese companies operating overseas to conduct environmental impact assessments, develop mitigation measures, and work with local communities to identify potential negative impacts of the investment.
2013	MOFCOM, MFA, MOHURD, GAC, SAT, SAIC, AQSIQ and SAFE	Measures for Unfavorable Credit Records in the Fields of Outward Investment Cooperation and Foreign Trade ^H	The Measures provide for the preparation and publication of a list of companies (with bad credit records) that have engaged in poor behavior in outbound investment and trade, including causing ecological damage.

Year	Issuing Agency	Policy Title	Notes
2013	MOFCOM	Provisions on Regulating Competitive Behaviors in the Fields of Foreign Investment Cooperation ^I	The Provisions require that all Chinese investors observe the laws and local customs of the host states and pay attention to the performance of social responsibilities in areas including environment, employment and local communities.
2012	MOFCOM, SCIO, MFA, NDRC, SASAC, NBCP, ACFIC	Opinions on the Cultural Development of Overseas Chinese Enterprises ^J	The opinions stress the importance of morality in international business relations. They promote a cultural of compliance with local laws and regulations and corporate social responsibility. They emphasize the importance of Chinese companies presenting a favorable image of China.
2009	MOFCOM, SAFE	Notice on the Joint Annual Inspection of Overseas Investment ^K	The evaluation is to be conducted by provincial commerce departments or headquarters of central enterprises and the State Administration of Foreign Exchange. Noncompliance with laws and regulations of the host countries or involvement in environmental issues or disputes negatively affects the scores to be earned by the overseas enterprise.
2008	MOFCOM, MFA and SASAC	Notice on Further Regulating the Foreign Investment Cooperation of Chinese Enterprises ^L	The Notice identified environmental issues as one of the major issues for enterprises operating overseas and provides for penalties for breaches, including failure of the annual inspection, loss of business qualification, and withdrawal of passports.

A <http://images.mofcom.gov.cn/ao/201801/20180125184818343.pdf>

B http://www.ndrc.gov.cn/gzdt/201712/t20171226_871563.html

C http://www.ndrc.gov.cn/gzdt/201712/t20171218_870751.html

D http://www.mep.gov.cn/gkml/hbb/bwj/201705/t20170505_413602.htm
<https://www.yidaiyilu.gov.cn/wcm.files/upload/CMSydlgw/201705/201705161104041.pdf>

E <http://www.mofcom.gov.cn/article/b/c/201409/20140900723361.shtml>

F http://www.ndrc.gov.cn/zcfb/zcfbl/201404/t20140410_606600.html

G <http://www.mofcom.gov.cn/article/b/bf/201302/20130200039930.shtml>

H <http://www.mofcom.gov.cn/article/h/redht/201309/20130900316370.shtml>

I <http://www.mofcom.gov.cn/article/b/g/201309/20130900322914.shtml>

J <http://www.mofcom.gov.cn/article/b/bf/201205/20120508126444.shtml>

K <http://www.mofcom.gov.cn/article/b/bf/201007/20100707033584.shtml>

L <http://www.mofcom.gov.cn/aarticle/b/g/200808/20080805721680.html>

In the major regulations released so far, a distinction can be made between documents that encourage *voluntary compliance* and those that include *enforcement mechanisms* for non-compliance. Policies called “Guiding Opinions” or “Guidelines” fall into the former category, whereas “Measures”, “Provisions” and “Notice or Circular” usually belong to the latter. A careful study of all these documents reveal that sometimes even in policies titled as “Measures”, the legal responsibilities and corresponding penalties do not necessarily cover all the rules contained in the policy document, such as the Article including environmental protection (*The Measures for the Administration of Overseas Investment* issued by MOFCOM in 2014 is such an example). In policies that do contain an enforcement mechanism, either a deduction of the annual inspection score or a record of ‘bad credit’ will be assigned to any enterprise found to have violated environmental policies. The worst possible outcome mentioned in these policies seems to be the potential loss of business qualification if the enterprises have “violated the relevant laws and regulations and caused serious consequences”.¹⁵ However, more detailed information on how to define serious consequences does not exist in the policy document. So far, no companies have been publicly reported to be punished due to environmental problems related to overseas investments, and the bad credit list is not made transparently available, so it is hard to determine the extent of non-compliance without field research and independent verification.

There was much anticipation for the new overseas investment regulations being formulated by NDRC in 2017. A draft version of the *Administrative Measures on Overseas Investments* was released by NDRC to solicit public feedback on November 3, 2017, and it showed no strengthening of the 2014 policy for environmental protection (NDRC 2017). The final policy, published at the end of 2017, states in Article 41 that the investment administrative agency “advocates for ecological and environmental protection.” Article 49 states that violations will be reported to NDRC or the local DRC, which in turn will impose punishments. NDRC will also publish the record of violations and punishments publicly. Article 43 requests that any violations be reported to the NDRC through an on-line collection system, and Article 45 requests written responses to any inquiries made by NDRC about the investment process. Taken together, these new policies indicate that the Chinese government is trying to strengthen the monitoring and regulation of overseas investments. If violations are indeed publicly released, experts and civil society would be able to track and verify the extent of non-compliance (NDRC 2017).

15 <http://www.mofcom.gov.cn/aarticle/b/g/200808/20080805721680.html>

Chart 1: Policies Governing Domestic and Overseas Investment

Policies Governing Domestic Investment	<ul style="list-style-type: none"> Guiding Opinions on Supporting the Development of Green Bonds (CSRC, 2017) Energy-Efficiency Credit Guidelines (CBRC & NDRC, 2015) Guidelines for the Issuance of Green Bonds (NDRC, 2015) Green Bond Endorsed Project Catalogue (PBoC, 2015) Guiding Opinions on Pilot Scheme for Compulsory Environmental Pollution Liability Insurance (MEP & CIRC, 2013) Opinions on Implementing Environmental Protection Policies and Regulations to Prevent Credit Risks (SEPA, PBoC & CBRC, 2007)
Policies Governing Outbound Investment	<ul style="list-style-type: none"> Interim Measures for the Reporting of Outbound Investments Subject to Record-filing or Approval (MOFCOM, PBoC, SASAC, CBRC, CSRC, CIRC and SAFE, 2018) Administrative Measures for Overseas Investment by Enterprises (NDRC, 2017) Opinions on Further Guiding and Regulating Outbound Investment (NDRC, MOFCOM, PBoC & MFA, 2017) The Belt and Road Ecological and Environmental Cooperation Plan (MEP, 2017) Interim Measures for the Supervision and Administration of Overseas Investment of Central Enterprises (SASAC, 2017) Notification on Further Clarifications on Overseas RMB Loans by Domestic Enterprises (PBoC, 2016) Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road (NDRC, MFA and MOFCOM, 2015) Administrative Measure for the Verification, Approval and Record-Filing of Outbound Investment Projects (NDRC, 2014) Administrative Measures for Outbound Investment (MOFCOM, 2014) Guidelines for Environmental Protection in Foreign Investment and Cooperation (MOFCOM & MEP, 2013) Guiding Opinions on Promoting International Development of Strategic Emerging Industries (MOFCOM, NDRC and 8 other government agencies, 2011)
Policies Governing Both Domestic and Outbound Investment	<ul style="list-style-type: none"> The Catalogue of Investment Projects Subject to Government Ratification (State Council, 2016 Version) Guidelines for Establishing the Green Financial System (PBoC and 6 other government agencies, 2016) Key Indicators of Green Credit Performance (CBRC, 2014) Green Credit Statistics System (CBRC, 2013) Green Credit Guidelines (CBRC, 2012) Guiding Opinions on the Credit Work for Energy Conservation and Emission (CBRC, 2007)

As of 2017, the only policy document which specifically focuses on reducing the environmental impacts to be caused by Chinese companies operating overseas is the *Guidelines on Environmental Protection in Overseas Investment and Cooperation*, jointly issued by the MOFCOM and the MEP in 2013. As reflected by its title, the Guidelines are a soft regulation that are voluntary in nature. Their goal is to guide the behavior of Chinese companies “to identify and preempt environmental risks in a timely manner and actively fulfill their social responsibility in environmental protection” (MOFCOM 2013). To facilitate conscientious implementation of these Guidelines, in April 2017 MEP, together with MFA, NDRC and MOFCOM, published the *Guiding Opinions on Promoting Green Belt and Road*, which put forward more detailed suggestions for enterprises to embrace their corporate social responsibilities. In this document, Chinese companies engaging in overseas projects are encouraged to release annual environmental performance reports, to adopt low-carbon and energy-saving materials and techniques, and to step up efforts in the development and application of major technologies to address climate change, among other measures.¹⁶ There are no penalties for non-compliance in the Guiding Opinions on Promoting Green Belt and Road.

Over the years, various government agencies involved in the supervision of overseas investment or environmental protection have made joint efforts to enhance the level of scrutiny, thus mitigating environmental harm to be caused by Chinese investments abroad. Hidden behind scattered supervisory responsibilities (see Table 5) is the difficulty of coordination among different bodies and institutions in the regulation, decision-making, and project approval processes of overseas investments. The draft of the *Guidelines for Environmental Protection in Foreign Investment and Cooperation* was first completed in 2009, but was not released until 2013. The delay was mainly due to a divergence of views between MEP and MOFCOM regarding the stringency of the rules and which party should be given the authority to manage the environmental impact assessments of relevant companies. While MEP strived to make the guidelines mandatory, MOFCOM, with a strong desire to increase trade following the international financial crisis, opposed mandatory environmental regulations (Hu 2013).

MEP's authority to influence the environmental impacts of China's overseas projects remains limited. According to information provided by MEP officials at a press conference held in July 2017, MEP participated in the formulation and issuance of guidelines to green the BRI and launched an ecological big data platform to facilitate the exchange of green technologies. But for Chinese companies going abroad, MEP upholds the official government position that they should merely observe environmental laws in the host country.¹⁷

16 http://www.mep.gov.cn/gkml/hbb/bwj/201705/t20170505_413602.htm

17 http://www.mep.gov.cn/gkml/hbb/qt/201707/t20170720_418237_wap.shtml

For NDRC and MOFCOM, who bear the primary responsibility for the approval of overseas investments, the challenge lies in how to integrate environment and other investment risk into their evaluation and review process. Bureaucratically, these ministries are not accustomed to taking responsibility for the environmental behavior of companies, like MEP normally does, nor do they have expertise or mandates for environmental supervision. Still, NDRC and MOFCOM are continuing to lead the formulation of new policies. In addition to the Administrative Measures for Enterprise Outbound Investment released by NDRC in December 2017, NDRC is also leading the formulation of Regulations on Outbound Investment and Business Activities of State-Owned Enterprises. MOFCOM is making efforts to strengthen post-investment monitoring so as to reduce all sorts of risks — macroeconomic, social, environmental — in outbound investment. In response to question about a proposed blacklist system for overseas investment raised at an October 2017 press conference, MOFCOM official revealed that they are “working with concerned departments to actively break down relevant implementation tasks with a view to introducing relevant management measures as soon as possible” (MOFCOM 2017). These efforts are then somewhat reflected in Article 13 of the Interim Measures for the Reporting of Outbound Investments Subject to Record-filing or Approval, where all domestic investors are required to report information, such as project progress, compliance with local laws and regulations, protection of resources and environment and performance of social responsibility to competent regulatory authorities on a regular basis. The details, channels, and frequency of the information submissions are to be decided by respective regulatory agencies (MOFCOM et al. 2018).

In addition to actions by investment regulators, in new guidelines issued in January 2017, CBRC also instructs commercial banks to bolster their risk and compliance management for offshore investment projects.¹⁸ The important role of the financial sector in greening China's domestic and overseas investments will be discussed in detail in the next section.

Industry associations have also formulated trade-wide standards supplementing government policies to help with the sustainable development of member companies. In 2014, for example, the China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters released its “Social Responsibility Guidelines for China's Outbound Mining Investment” and updated the guidelines in 2017 (CCCMC, 2014 & 2017). This was the first set of voluntary guidelines in China compiled by an industry association, and it received extensive attention from the international community. However, due to China's relatively short history of “going out,” Chinese enterprises may face hefty challenges to effectively complying with these guidelines, even if they are eager to build a good reputation.

18 <https://www.reuters.com/article/us-china-banking-risk-control/chinas-banking-regulator-issues-guidelines-on-outbound-investment-idUSKBN159106> http://www.cbrc.gov.cn/chinese/home/docDOC_ReadView/E2D221D7C7BB463A85D8D3F8059947AE.html

Chart 2: Comparison of Restrictions on Domestic and Outbound Investments

Restricted or Prohibited Domestic Investment	<ul style="list-style-type: none"> ▪ Heavy industry including steel and iron, electrolytic aluminum, cement, glass, boats and ships are not allowed to apply for new production capacity; ▪ In principle, no new coal mines, technological transformation for newly-added capacity nor projects to increase production capacity of existing mines can be approved over the next 3 years from 2016; ▪ In principle, no more manufacturers of traditional fuel vehicles will be approved. New energy vehicle enterprises cannot be established unless they have preliminarily grasped core technologies such as the power system as well as R&D capacity for manufacturing completed vehicles.
Prohibited Outbound Investment	<ul style="list-style-type: none"> ▪ Investments that impair or may impair China's national interests or national security are prohibited (core military technologies and products, gambling, pornography).
Restricted Outbound Investment	<ul style="list-style-type: none"> ▪ Investments in sensitive countries or regions (without diplomatic relations, experiencing war or strife, investment restricted by treaty, and other); ▪ Investments in sensitive industries (research, manufacture, and repair of weaponry; cross-border water resources development and utilization, news media, industries to be restricted from outbound investments according to laws, regulations, and related control policies). Sensitive industry directory to be published by NDRC; ▪ Real estate, hotels, film studios, the entertainment industry and sports clubs; ▪ Equity investment or other investment platforms without tangible industrial projects; ▪ Investments that use obsolete production equipment that does not meet the technical standard.

Chart 3: Encouraged Chinese Domestic and Overseas Investments

Strategic emerging industries	<p>Industries that that are encouraged to develop both within and outside China:</p> <ul style="list-style-type: none"> ▪ Next generation information technology ▪ High-end equipment manufacturing ▪ Energy efficient and environmental technologies ▪ Energy-saving and new energy vehicles ▪ New energy ▪ New materials ▪ Biotechnology
Encouraged Outbound Investment	<ul style="list-style-type: none"> ▪ Infrastructure investment that benefits the construction of BRI and connections with neighboring infrastructure ▪ Investment that promotes the export of advantageous production capacity, quality equipment, and technology standards ▪ Investment cooperation with foreign high-tech and advanced manufacturing enterprises and to encourage enterprises to set up overseas R&D centers ▪ The exploration and development of energy resources such as oil gas and minerals on the basis of evaluation of economic benefits ▪ Investment in trade, culture, logistics and other service fields and overseas expansion of qualified financial institutions

5. China's Efforts to Green its Banking System

China's efforts to green its banking system can be traced back to 1995, when the People's Bank of China and the State Environmental Protection Agency (SEPA)¹⁹ issued a circular, encouraging financiers to be aware of environmental protection in lending practices.²⁰ In 2006, China for the first time included binding targets for energy efficiency and pollution reduction in its overarching five-year national economic development plan (the 11th Five Year Plan). Along with the implementation of energy saving policies in the 11th FYP period, a series of regulations were issued on enhancing financial services related to energy efficiency, emissions reduction, and environmental protection.

In 2007, the China Banking Regulatory Commission (CBRC), People's Bank of China (PBOC), and SEPA jointly issued a green credit policy, which called on banks to give credit support to the "encouraged" industries and withdraw loans or credit from projects in the "restricted" and "to-be-eliminated" industries.²¹ To help control financial risks arising from energy and emission-intensive industries, CBRC also issued Guiding Opinions on the Credit Work for Energy Conservation and Emission Reduction that year and started dialogues with multiple ministries to channel information and technical know-how to banks to enable green lending (SBN/IFC 2016).

In 2012, drawing upon domestic experience and international good practices, CBRC issued the Green Credit Guidelines, a milestone in China's commitment to sustainable banking practices (see Table 4). The Guidelines encourage financial institutions to strengthen the evaluation of environmental and social risks in the lending process, to develop innovative green financial products, and also to enhance sustainable performance in their own operations. To monitor and assess policy enforcement, CBRC further introduced a statistical system and key performance indicators in respectively 2013 and 2014.²² With the joint release of Energy-Efficiency Credit Guidelines by CBRC and NDRC in 2015, a supervision framework had been set up to support green lending in China.²³

19 The predecessor to the Ministry of Environmental Protection

20 <http://www.chinaacc.com/new/63/69/110/1995/2/ad594249401116259919555.htm>

21 <http://www.cbrc.gov.cn/chinese/home/docView/20080129C3FA6D993AC4AEF7FFE133D6E2AD0D00.html>

22 <http://www.wwfchina.org/content/press/publication/2015/greenfinanceen.pdf>

23 <http://finance.sina.com.cn/money/bank/yhpl/2017-03-09/doc-ifychhus0202334.shtml>

Table 4: Clauses on Outbound Investment in the Overall Guidelines for Investment or Green Finance

Policy Name	Clauses on Overseas Investment
The Catalogue of Investment Projects Subject to Government Ratification (2016)	Article 21 Projects involving sensitive countries and regions or sensitive sectors shall be filed for approval with the investment departments of the State Council. Projects involving investments from central-administrated enterprises and local businesses of over US\$ 300 million shall be filed (no need for approval) with the investment departments of the State Council.
Guidelines for Establishing the Green Financial System (2016) ^A	Article 31 Enhance the "greenness" of China's outward investment. Support and encourage domestic financial institutions, non-financial enterprises and multilateral development banks with China's active participation to strengthen environmental risk management, improve environmental information disclosure, adopt green financing instruments such as green bonds, develop green supply chain management, and explore the use of instruments such as environment pollution liability insurance to manage environmental risks, in implementing "One Belt One Road" and other overseas investment projects.
Green Credit Guidelines (CBRC, 2012) ^B	Article 21 Banks shall strengthen environmental and social risk management for proposed overseas projects, ensure project sponsors are compliant with local environmental, land, health and safety laws and regulations in the project country or region. Banks shall publicly commit to adopt relevant international best practices or standards for the proposed overseas project, ensure the proposed project is consistent with international best practices in essence.
Key Indicators of Green Credit Performance (CBRC, 2014)	Article 4. The banking institutions shall ensure the staff conducting overseas project financing acquire sufficient knowledge of law and regulations in the host countries concerning environmental protection, land, safety and health, and gain sufficient experience of the environmental and social risk management of the projects to be granted credit and the risk management willingness and capacity of the project initiator. Article 4.21.2 The banking institutions shall implement whole procedure management to the environmental and social risks of projects to be granted credit. Article 4.21.3 The banking institutions shall make promise in public that appropriate international practices or international norms will be followed as far as such overseas projects are concerned, such as making promise to adopt "Equator Principles", signing and joining the "Global Compact" initiated by the United Nations, signing and joining the United Nations Environment Programme Finance Initiative, etc. Article 4.21.4 The banking institutions shall make in-depth understanding of international best practice of the assessment and control of environmental and social risks for international financing projects and ensure alignment with good international practices in essence. Article 4.21.5 The banking institutions shall hire qualified and independent third-party to make assessment and examination of environmental and social risks to the overseas financing projects which arouse disputes in terms of their said risks.

A <http://www.pbc.gov.cn/english/130721/3133045/index.html>

B <http://pfbcbf.org/docs/news/avril-mai-13/RDP12-Mars-2013/DCC-China%20Banking%20Regulation%20-%20Green%20Credit%20Guidelines.pdf>

In parallel with the promotion of green credit, progress has also been made on other fronts, such as the issuance of green insurance and securities, though they are very limited in scope. Pilot programs on environmental pollution liability insurance started following the announcement of Guiding Opinions on Environmental Pollution Liability Insurance by China Insurance Regulatory Commission (CIRC) and the SEPA in 2007. In 2008, China Securities Regulatory Commission (CSRC) and the SEPA respectively issued policies, requiring listed companies in heavily polluted industries to conduct Environmental Impact Assessment (EIA) when applying for IPO or re-financing. In the following two years, more guiding suggestions were issued by the four financial regulators on further improving financial services to support the restructuring of industries suffering from over-capacity or dated technology or production practices (commonly described in China as backwards production). In 2011, NDRC launched a carbon allowance trading programs among 7 pilot provinces/cities. The importance of using market-based instruments such as carbon pricing to incentivize low-carbon technologies and practices was further emphasized in the report of the Green Finance Task Force (PBoC/UNEP, 2015). As of the end of 2017, a national emissions trading system for the power sector was launched but is not yet operational as of this report so it is too soon to tell if it worked to stimulate the mobilization of green credit.

Despite all these encouraging developments, the fragmented measures taken during this period are not sufficiently comprehensive to have effectively internalized the substantial environmental externalities to bring about real stimulus in green investment. The lack of a complete and explicit conceptual framework for green finance resulted in many policies narrowly focused on short-term energy conservation and emission reduction (DRC and IISD 2015; Feng 2016). Communication mechanisms between relevant supervisory authorities have improved but are still not effective. For instance, there is still no full and timely information-sharing between industry, environmental-protection and financial regulators, which would be necessary for the enforcement of many green finance policies. According to the former Chief Economist of the PBoC, Ma Jun, another barrier to the development of green finance that the government has not yet addressed is the knowledge and skill deficiencies among supervisory agencies and financial institutions for the proper monitoring of policy implementation, assessment of environmental risks, and design of new green finance products (Ma 2017).

All of these deficiencies pointed to the need for a sound top-level design to deepen the understanding of green finance among government officials at all levels and to mobilize public and private capital towards a green and sustainable mode of economic growth. Such an effort started with the initiation of the Green Finance Task Force by the Research Bureau of the PBoC and the UN Environment Inquiry in July 2014 to consider the steps that China could take to establish a green financial system (PBoC, UNEP 2015).

As an outcome of this process, the Green Finance Task Force proposed a preliminary policy framework and 14 specific recommendations for building China's green finance system, most of which were approved by the Central Committee of the CPC and the State Council and included in the “*Integrated Reform Plan for Promoting Ecological Progress*”, released in September 2015 (IIGF and UN Environment 2017). This plan, for the first time, enhanced the establishment of a green financial system as a national strategy and this goal was later fully formalized through its inclusion in the 13th Five-Year Plan for Economic and Social Development (Gilbert and Zhou 2017).

Building on this momentum, in August 2016, seven ministerial agencies including the PBoC promulgated the *Guidelines for Establishing the Green Financial System*.²⁴ As the world's first attempt at an integrated green finance policy package, the Guidelines spell out a wide range of financial instruments to be utilized for a green transformation of the economy, such as green credit, green development funds, green bonds, green stock indices, green insurance, and carbon finance. They also call for the development of a host of laws, regulations, and incentives so as to create appropriate incentives and restraints for the internalization of environmental externalities. Ever since the release of the Guidelines, local governments at provincial and municipal levels have actively responded to the call by developing their own green finance plans.

During 2016, a landmark year in the evolution of green finance in China, there were a rapid expansion of its green bonds market, new breakthroughs in the innovation of various green financial products as well as a multitude of reports on the bottlenecks and challenges of green finance from the standardization of green finance practices, environmental risk evaluation and mechanisms to support capacity building (IIGF and UN Environment). In June 2017, China launched five pilot zones in provinces of Guangdong, Guizhou, Jiangxi and Zhejiang and Xinjiang, each with a focus on different aspects of green financing, to explore development models for the local green financial system against different backgrounds (ibid).

Apart from pursuing green financing at home, China also took leadership on green finance internationally. Under its G20 presidency, China, for the first time, incorporated green finance into the G20 agenda and established the G20 Green Finance Study Group in the hope of creating a new work stream on green finance around the world.

24 <http://www.pbc.gov.cn/english/130721/3133045/index.html>

6. Comparing Policies Influencing Green Investments at Home and Abroad

6.1 INDUSTRIAL INVESTMENTS THAT ARE ENCOURAGED, RESTRICTED, OR PROHIBITED

To compare China's policies regarding domestic and overseas investment, a good starting point is to examine the industries that are encouraged, restricted, or prohibited by the Chinese government at home and abroad for fixed-asset investments.

In December 2016, the State Council released a revised version of *the Catalogue of Investment Projects subject to Government Ratification*. According to officials from NDRC, as part of the effort to streamline administration and delegate power, the main purpose of this latest revision was to further simplify the approval procedure for domestic investment projects. This move essentially reinforced the crucial role of industrial policies to guide investment direction and post-investment monitoring by relevant government regulatory agencies.²⁵ The revised catalogue emphasized that domestic investment projects are to be evaluated and managed by the local environmental protection agencies based on their level of environmental impact. Projects associated with high environmental risk are subject to stringent environmental approval procedures and continuous oversight. Most importantly, the revised catalogue conveyed clear signals about the industries for whom domestic expansion would be strictly controlled to address severe overcapacity, especially in the heavy industries such as steel, iron, cement and coal mines. The catalogue also encourages cleaner alternatives, for example, rather than cars using traditional fuels.²⁶

With regard to overseas investment, China's National Development and Reform Commission, the Ministry of Commerce, the People's Bank of China, and the Ministry of Foreign Affairs jointly issued *Opinions on Further Guiding and Regulating Outbound Investment* in August 2017. Putting the two "negative lists" of industries against each other, as depicted in Chart 2, their similarity only lies in their common goal of facilitating China's economic restructuring process. Real estate, hotels, film, entertainment and sports clubs are restricted due to a tendency for "irrational" overseas investment, according to a statement jointly released by the National Development and Reform Commission, Ministry of Commerce, the People's Bank of China and the State Administration of Foreign Exchange (Xinhua 2016).

It worth noting that, in the list of restricted overseas investments, China explicitly discourages investments unable to meet the technical, environmental protection, or energy consumption standards of the target country. It is exactly these "host nation standards" that make the overall impact ambiguous, however. Certain investment destinations in the European Union and even some developing countries with fragile eco-systems would demand stricter emissions control or meeting higher environmental performance standards than China currently requires domestically, but it is incontrovertible that environmental governance is much weaker in many of the countries covered under the BRI compared with China's. Indeed, it is easy to forget that China's own environmental governance policies were much weaker than most other industrialized countries up until 2000 (Gallagher, K.S. 2006).

A recent initiative to drive China's overseas investment onto a more sustainable path may help alleviate this concern surrounding inconsistent standards. In September 2017, the Green Finance Committee (GFC) of China Society for Finance and Banking, the Ministry of Environmental Protection's Foreign Economic Cooperation Office and five other industry associations jointly launched an Environmental Risk Management Initiative for China's Overseas Investment. Financial institutions and enterprises were called upon by this voluntary initiative to fully understand relevant environmental standards both in China and in host countries, as well as the prevailing international standards, and adopt the highest standard where feasible.²⁷ The commitment was echoed in other venues. A 2016 Chinese Academy of Social Sciences conference focused on the BRI as an opportunity for China to help developing countries improve their environmental institutional capacity (Legal Daily 2016). While these initiatives are undoubtedly pointing in the right direction, nothing is yet legally binding.²⁸ Prior to the formation of a detailed operational guideline and enforceable government regulations, companies and banks are not likely to go beyond compliance with local laws in recipient countries.

Another factor that may help avoid a 'race to the bottom' to weaker environmental regulations is China's long-term effort to transfer higher quality production capacity, equipment, and technical standards to recipient countries. A 2015 UNDP survey-based study found that 87% of surveyed Chinese companies have transferred technologies to host countries or have some form of technology cooperation with them. Among Chinese contractors working on construction projects in foreign countries, 77% of them would recommend their own or China's engineering quality standards if they are higher than the host country's standards (UNDP 2015). There are no empirical studies that we could find that assess the extent to which China is transferring cleaner technologies to other countries, and much more research is needed in this domain.

25 http://english.gov.cn/news/policy_briefings/2016/05/13/content_281475348393862.htm
http://www.gov.cn/zhengce/2016-12/20/content_5150777.htm

26 With respect to outbound investment, the Catalogue only required investments involving sensitive regions or industries to go through the approval process with related department under the State Council.

27 http://news.xinhuanet.com/fortune/2017-09/08/c_129699225.htm and
<http://unepinquiry.org/wp-content/uploads/2017/09/Environmental-Risk-Management-Initiative-for-China-s-Overseas-Investment.pdf>

28 Ibid.

Exploring further the list of encouraged industries for outbound investment listed in Chart 3, more concerns about unsustainable development may arise with the promotion of infrastructure investment and development of energy resources in countries along the BRI. Comparing encouraged industries with the industries domestically restricted, it seems logical that surplus capacity in industries such as iron, steel, glass, cement, and solar panels might be redirected to the overseas construction of related infrastructure. Some Chinese scholars and government officials have acknowledged that one of the purposes of the BRI is to export surplus capacity, although the Chinese government has officially denied it (Su 2015). During an inspection tour in Guangdong on January 5, 2015, Premier Li Keqiang stated that in order to absorb excess domestic production capacity, it was “imperative to promote the going out of China’s power equipment” (Han 2015). Nonetheless, the Chinese government always emphasizes the mutual benefits of transferring its competitive production capacity and manufacturing equipment to developing countries.²⁹

Meanwhile, President Xi Jinping continues to emphasize a greening of the BRI. This desire is articulated in the action plan of the “Belt and Road Initiative – Vision” and the BRI Ecological and Environmental Cooperation Plan. In his speech to the BRI Forum in May 2017, he stated, “We need to seize opportunities presented by the new round of change in energy mix and the revolution in energy technologies to develop global energy interconnection and achieve green and low-carbon development. . . We should pursue the new vision of green development and a way of life and work that is green, low-carbon, circular and sustainable.”³⁰

To facilitate timely achievement of these objectives, the Ministry of Environmental Protection issued in May 2017 the Belt and Road Ecological and Environmental Cooperation Plan,³¹ specifying which support policies needed to be formulated, the platforms to be built, and the standards to be enforced. Zooming into the clauses related to the eco-friendly development of infrastructure and energy projects, it is hard to identify elements that would guarantee enforcement. In the first place, the plan emphasizes the self-governance of the enterprises, expecting them to fulfill environmental responsibility using their own initiative. On the part of supervising agency, only industry associations and chambers of commerce, with no real administrative power, are recommended to issue environmental codes of conduct for overseas investors. Secondly, the plan merely encourages enterprises to publish annual environmental reports instead of mandating the disclosure. Thirdly, it sets to promote environmental standards and practices in such sectors as green transportation, green building and green energy, without clarifying the origin of these standards. Given that enterprises are required to abide by local environmental regulations and undergo local

29 More details can be found in the Guiding Opinions on Promoting the Cooperation between International Capacity and Equipment Manufacturing, issued by the State Council in May 2015.

Or http://www.china.org.cn/chinese/2015-05/06/content_35501653.htm

30 http://www.xinhuanet.com/english/2017-05/14/c_136282982.htm

31 http://www.mep.gov.cn/gkml/hbb/bwj/201705/t20170516_414102.html

environmental impact assessment, these might also refer to local standards. If only local rules are to be observed, similar to what is discussed above, the environmental performance of China’s infrastructure and energy projects will be unpredictable, varying with the administrative rigor of the host countries.

The vagueness of the BRI Ecological and Environmental Cooperation Plan does not necessarily indicate that China’s overseas projects will be out of line with the standards set within China because after all, in addition to environmental requirements of the host countries, Chinese companies also need to comply with the environmental impact evaluation standards of the financial institutions providing capital (Woods 2008). According to the Green Credit Guidelines issued by CBRC in 2012, banks are advised to adopt relevant international best practices when evaluating the environmental risks of the proposed projects. The bottom line, however, is that these guidelines are not binding and therefore, it is difficult to see how they could play a watchdog role for overseas investments in lieu of regulatory standards. Still, Chinese enterprises may be cautious with environmental requirements for the sake of protecting their corporate image (and thus market value) and also to avoid having expensive projects stalled by angry local communities. The emphasis on “cautious evaluation of economic benefits” by the Chinese government for overseas investments in mineral resources essentially urges Chinese investors to calculate all of the potential costs associated with the mitigation of environmental risks. Third party assessment and relevant international standards are expected to be adhered to, although recipient country authorities and local communities are still likely to act as the final line of defense against environmental degradation, if in fact they are prepared to do so.

Focusing in on GHG emissions, investments in the power sector, and especially carbon-intensive coal-fired power plants, deserve greater scrutiny. According to one aggressive estimate, Chinese corporations are building or planning to build more than 700 new coal plants at home and around the world, some in countries that today burn little or no coal. Over all, China could be behind 340 to 386 GW of planned coal power expansion worldwide (Tabuchi 2017), although our own estimates are closer to 25 GW. For comparison, the U.S. state of New York has an electricity capacity of 40 GW and the U.S. state of Texas has an electricity capacity of 119 GW (EIA 2018). Much more research is needed by independent analysts to clarify the reality of what is happening on the ground. Greater transparency by the Chinese government and the Chinese banks about which projects are being supported and where would greatly facilitate this analysis. Despite energy-efficient technologies such as supercritical boilers that have been deployed in some of these power plants, the number of new projects in the pipeline could easily exceed any modest emissions savings from more efficient technologies, especially if China’s new, stringent standards for domestic plants do not apply to exports (Walker 2016). A positive sign is that, India, Vietnam and Mongolia, three of the top destinations of Chinese coal-power investment have all announced their intention to increase the proportion of renewables in their energy mixes, but not necessarily instead of expanding coal (Feng Hao 2017). In East Asia, 58 percent of planned coal power plants have

reportedly been shelved due to climate concerns, which demonstrates initiative on the part of recipient countries (Yuan and Zhao 2017).

If recipient countries put in place environmental performance standards or other measures to limit the construction of new coal-fired power plants, they could avoid getting locked into a high carbon infrastructure for the future. And, of course, such policies would at least force Chinese investors to reconsider the profitability of future investments in coal power and could also prohibit them altogether. Still, a legitimate concern for now is that Chinese investors, and particularly the CDB, are becoming the lender of last resort for coal plants since most other multinational development banks now prohibit or greatly restrict lending to coal projects. In December 2017, the World Bank went beyond its restrictions on coal financing to announce that it would even stop financing oil and gas exploration projects by 2020.

Although many experts worry about China pushing surplus capacity in outdated or dirty industries through its overseas investments, a shift of Chinese government priorities for overseas investment from coal to cleaner forms of energy could be driven by China's plan to spur economic transformation through the development of strategic emerging industries both at home and abroad. Highly regarded as new engines of the country's economic growth, a series of policies have been issued to boost clean energy innovation and market expansion.³² Favorable fiscal and tax treatments have been rolled out by the central and local governments for domestic and overseas investments within these industries.³³ Partly driven by such strong support of these industries both within and outside of China, between 2012 and 2016, 48 percent of China's outbound investment projects, with values greater than \$30 million each, went to hydropower and other types of low-carbon energy technologies versus 21 percent for coal-fired power plants.³⁴ Half of the clean energy investments appear to have been in hydropower (Buckley et al. 2018). In the next section, we will investigate how these policies have interacted with other industrial policies, enabling leading Chinese renewables companies to go global in recent years.

32 Some major policies in this regard include Guiding Opinions on Promoting International Development of Strategic Emerging Industries, Made in China 2025 and the 13th Five-Year Plan for the Development of Strategic Emerging Industries, etc.

33 <http://www.mxlw8.com/a/a/qgwm/2017/0525/125.html>

http://www.mof.gov.cn/xinwenlianbo/quanguocaizhengxinjianbo/201110/t20111031_603378.html

34 http://news.xinhuanet.com/energy/2017-08/17/c_1121498097.htm

6.2 THE DIRECT AND INDIRECT EFFECTS OF CHINA'S INDUSTRIAL POLICIES

During the past decade, China has emerged as a global leader in clean energy investment and capacity. It now boasts the world's largest installed capacity of wind, solar, and hydropower as well as the biggest market for electric vehicles. To a great extent, the success has been propelled by China's incentivizing industrial policies. Since the Renewable Energy Law came into effect in 2006, the government has poured billions of dollars into the R&D, demonstration, application and industrialization of clean energy equipment and technologies. The feed-in tariff for renewable generation, distributed through a special fund system, was once a major catalyst for attracting social investment into this area. Subsidies contributed by both central and local government budgets were provided to promising clean energy projects in the form of grants, low-interest loans, tax rebates, and purchase subsidies. Such massive government intervention in the energy markets spurred aggressive industrial development and eventually created a serious oversupply of solar and wind manufacturing capacity even to the global market. Partly to combat this problem, but also in pursuit of technology upgrades, in September 2009, NDRC and nine other government agencies jointly issued the first direct policy on resolving domestic overcapacity.³⁵ This policy's first principle is to "support qualified enterprises in transferring production capacity and to form a new pattern of participating in international industrial competition by implementing the "going global" strategy" although for industries with "high energy consumption and high pollution", the policy affirmed the need to "firmly control the total output". At the time, 90% of China's solar PV production was exported so it could hardly "go global" any further, but the wind industry was largely oriented towards the domestic market.

Later on, the *Decision of the State Council on Accelerating the Cultivation and Development of Strategic Emerging Industries* issued in 2010 and *Guiding Opinions on Promoting International Development of Strategic Emerging Industries* released a year later further formalized this idea of enhancing competitiveness and innovation capability through the exploration of overseas markets and international cooperation.³⁶ Since then, the encouragement of overseas investment has extended to the whole low-carbon sector, ranging from renewable energies, energy saving and environmental protection industry to new energy vehicles.

This evolution of policies reveals how domestic industrial policies have brought about the need for these clean industries to develop abroad. Aside from that, the large deployments, economies of scale and technological innovation enabled by these domestic industrial policies have helped to improve indigenous technological capacities within China and to reduce technological costs globally.

35 http://www.gov.cn/zhengce/content/2009-09/29/content_4887.htm

36 <http://www.chinatax.gov.cn/n810341/n810765/n812156/n812469/c1186165/content.html>

6.3 CHINESE FINANCIAL INSTITUTIONS

While favorable fiscal and tax policies have been proposed to support the overseas expansion of Chinese companies in some strategic sectors, in reality, their impact on China's outbound investment is negligible compared with the abundant and relatively low-cost capital provided by Chinese financial institutions, especially the state-owned policy banks, who have been strong supporters of projects in line with government's policy objectives (FOE 2016).

Established in 1994 under the direct jurisdiction of the State Council as part of a banking sector overhaul, China Development Bank (CDB) and the Export-Import Bank of China (Chexim) were designated to finance public sector investment at home and assist Chinese enterprises in their endeavors to fund international projects. Unlike commercial banks, policy banks are mainly funded through bond issuance, a cheaper source of capital than deposits. The banks have also received periodic capital injections from the government. For instance, in 2015 the CDB and Chexim Bank received respectively \$48 billion and \$45 billion from the country's foreign exchange reserves (Zhang and Han 2017).

CDB is China's biggest policy lender,³⁷ and the second largest bond issuer in China after the Ministry of Finance (FOE 2016). As China's largest bank for overseas investment, it was financing with balance of international loans at an equivalent of US\$278 billion as at the end of 2016 (Public 2017). CDB initiated its first round of reforms in 2008, and in 2015, the central government announced another round of reforms for three of China's policy banks: CDB, Chex-Im, and the Agricultural Bank of China. The idea was to clarify each of their respective roles, and the State Council announced that the CDB must remain a "development financial institution," the China Exim Bank must transform into a "policy bank with sustainable development capacities," and the ADBC must become an "agriculture policy bank with sustainable development capacities".³⁸

CDB was China's first financial institution to join the United Nations Global Compact, an initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies.³⁹ CDB claims it has implemented the Equator Principles in its operations, but it not a formal member of the EP Association. The Equator Principles are a risk management framework that determine, assess and manage environmental and social risk in projects and are "primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making" (EP 2018).

37 By the end of 2016, the total assets of the CDB reached 14.34 trillion yuan, much higher than that of the Exim Bank, valued at 3.33 trillion yuan. http://www.cdb.com.cn/English/gykh_512/khjj/

38 http://english.gov.cn/policies/latest_releases/2015/04/12/content_281475087560462.htm

39 <http://www.telegraph.co.uk/sponsored/china-watch/business/12212286/china-development-bank-green-credit-projects.html>. Note that this news report could not be independently verified.

Apart from working with Chinese financial regulators to draft the Guidance for Green Credit, CDB has reportedly developed an environmental and social risk assessment system, which provides indices in appraising potential borrowers. Environmental monitoring and protection and social risk controls are included in the clauses for standard overseas financing contracts. Under the clauses, the risk controls continue after a loan contract comes into effect, which requires the borrower to regularly report on risk controls. At the end of 2016, CDB's balance of self-reported green loans amounted to RMB 1.6 trillion, accounting for 16% of its total loans (CDB 2016). According to the latest issue of CDB's annual sustainability report, it has provided safe drinking water to 19 million people. On energy it has loaned RMB 295 billion for nuclear energy (accounting for 30% of lending to the Chinese nuclear industry), RMB 445 billion to hydropower projects (22% of total investments), and contributed "43 million kWh in cumulative capacity" for wind and 14 million kWh in "cumulative capacity" for solar (CDB 2016, 31). CDB claims that its green loans could save 52.5 million tons of standard coal per year and reduce 131.3 million tons of CO₂ emissions per year (CDB 2016, 52). All of these figures appear to refer to domestically-financed projects and could not be independently verified.

In recent years, CDB has explicitly prioritized supporting strategically emerging industries and companies seeking to participate in the BRI. According to CDB, it provided US\$12.6 billion in loans to support the BRI in 2016 (CDB 2016). It signed a cooperation agreement with the NDRC in June 2017 to provide no less than RMB 1.5 trillion in stimulus capital for the development of strategically emerging industries (listed in Chart 3).⁴⁰ By the end of June 2017, CDB had cumulatively issued more \$170 billion in loans to BRI countries (Wright 2017). Looking forward, it commits to invest another \$36.7 billion in BRI projects during the next three years,⁴¹ and has more than 500 projects in the pipeline worth over \$350 billion.⁴²

Among the overseas renewable energy projects invested by Chinese companies over the past two years, CDB, in cooperation with other policy banks, commercial banks and companies, financed the 1740-MW Kirchner-Cepernic hydro complex to be built by two Argentinian enterprises and China Gezhouba Group Corp and a 900MW solar project to be undertaken by Zonergy in Pakistan. Two other solar projects in Italy and Bulgaria have been financed by CDB. One wind project, the Jhmpir Wind Power Plant, has been financed by CDB in Pakistan (Gallagher, K.P., 2017). The Sino-Latin American Production Cooperation Investment Fund, co-financed by CDB and the SAFE, facilitated the purchase of Duke Energy's hydropower station in Brazil by the Three Gorges Corporation.

40 http://finance.sina.com.cn/money/bank/bank_hydt/2017-06-20/doc-ifyhfnqa4473228.shtml

41 http://www.cdb.com.cn/English/xwzx_715/khdt/201709/t20170921_4595.html

42 http://www.cdb.com.cn/English/xwzx_715/khdt/201709/t20170921_4595.html

While the relatively low-cost and long-term capital provided by CDB may enhance the financial feasibility of these clean energy projects, due to lack of disclosure it is currently impossible to estimate the environmental footprint of all overseas projects financed by the bank. The relatively small number of clean energy projects and the small ratio of green loans to total indicate that there is still a long way to go for CDB to fully green its investment portfolio. Moreover, the above-mentioned Kirchner-Cepernic complex turned out to be a highly contentious hydroelectric project and was delayed due to an unsatisfactory environmental impact study.

The Chexim Bank is in many ways similar to the CDB. Unlike CDB, it is the only bank that can provide concessional loans designated by the Chinese government for China's foreign aid, the support of which has induced a meaningful rise in contracted projects involving Chinese firms in BRI countries in recent years.⁴³ By the end of June 2017, Chexim Bank has supported more than 1200 BRI projects, with a loan balance of more than RMB 670 billion.⁴⁴ About 70 percent of its lending is focused on improving infrastructure connectivity with neighboring countries.⁴⁵ Chexim financed two wind farms in Ethiopia with \$392 million in loans (Gallagher, K.P. 2017).

Among financial institutions in China, Chexim Bank was an early mover on green finance. As early as 2007, it put in place Guidelines on Environmental and Social Impact Assessment of Loan Projects to help control environmental and social risks for both domestic and overseas projects (IDI 2016). By the time it updated its Green Credit Guidelines in 2015, the bank has developed a set of green credit standards covering all the procedures in its business process, from project admission and investigation, risk assessment and credit approval, loan extension and disbursement, to post-loan management and credit exit (China Ex-Im 2018). Moreover, it has set up a diversified financial services system comprising green credit, green fund, green consulting and green bond (China Ex-Im 2018). As of the end of 2016, the bank's balance of lending to energy-efficient and eco-friendly projects ("eco projects") and services stood at RMB 93 billion, contributing to a reduction in CO₂ emission equivalent by 23.11 million tons and in the use of coal equivalent by 5.29 million tons in 2016 alone (CICA 2017). Apart from that, environmental benefits have also been achieved through the equity funds Chexim bank has jointly founded with other institutional investors at home and abroad.⁴⁶ For instance, the clean energy projects invested through the China-Central and Eastern Europe Investment Cooperation Fund has helped reduced around 2 million tons of CO₂ emissions in Poland and the Czech Republic, and assisted them in lowering their

43 Most of these projects are supported by Chinese concessional loans financed by the Export-Import Bank of China (Economist 2017).

44 <http://caiec.mofcom.gov.cn/article/jingmaoxinxi/201708/20170802627333.shtml>

45 http://finance.ifeng.com/a/20170508/15361349_0.shtml

46 Some of these funds include China-Central and Eastern Europe Investment Cooperation Fund, Silk Road Fund, China-ASEAN Investment Cooperation Fund, China-Japan Energy-Saving and Environmental Protection Investment Fund, China-LAC Cooperation Fund, China-Eurasian Economic Cooperation Fund, etc.

dependence on fossil fuel energy.⁴⁷ Chexim financed the Adama wind farm projects in Ethiopia (Gallagher, K.P. 2017).

In spite of all these positive developments, there is still considerable room for improvement in the environmental and social policies of these policy banks. First, China Chexim bank is said to have carried out extensive exchanges with other prominent international financial institutions, like the World Bank, the International Finance Corporation and other national banks, but the bank has never disclosed the stringency and/or scope of its green credit policies as compared with other international standards. Second, both CDB and Chexim require third-party independent assessment for the issuance of green bonds. But when it comes to making loans to domestic and overseas projects, a qualified and independent third party is required to be brought in only if the environmental and social risks involved are particularly complex and hard to determine.⁴⁸ According to Chexim's white paper on green finance, this is a standard required by Chexim bank. Since CDB actually participated in formulating the Green Credit Guidelines of CBRC, the inclusion of exactly the same standard in the CBRC guidelines seem to indicate that this is also the routine followed by CDB. CDB only states in its green bond report that it refers to the Green Credit Guidelines and Green Project Catalogue. Unlike the IFC, neither CDB nor Chexim bank requires field research and supervision on environmental issues in operation. Professional third-party institutions could be enlisted to help evaluate a project's environmental and social impact (GEI 2017). Another area of deficiency, which has been raised repeatedly in previous studies and still shows no sign of improvement, is the absence of formal avenues through which the public can access an environmental impact assessment and other information on specific projects as well as the lack of a grievance mechanism (Gallagher, K.P. 2013). Both of these two systems would enhance communication with the local communities in the host countries, thus bringing to the banks' awareness potential environmental and social issues in overseas projects before the emergence of real problem.

Another channel through which China could directly or indirectly support its BRI is the multilateral development banks (MDBs) and bilateral investment funds that China has either initiated or is participating in as a member. Here, we briefly review the environmental performance standards of three representatives in this category – the Asian Infrastructure Investment Bank (AIIB), the New Development Bank (NDB), and the Silk Road Fund (SRF).

AIIB and NDB share similar mandate, namely to provide financing for infrastructure needs and sustainable development throughout Asia and its neighboring regions for the former and within the BRICS countries for latter. They have both embraced an Environmental and Social Framework (ESF) with policies and standards broadly similar

47 <http://cms.eximbank.gov.cn/upload/accessory/20172/20172201624516937087.pdf>

48 <http://cms.eximbank.gov.cn/upload/accessory/20172/20172201624516937087.pdf>

in nature to those of other MDBs, such as the World Bank and Asian Development Bank. While both AIIB and NDB have set out in their ESFs some laudable commitments for social and environmental performance, in some respects more progressive than China's policy banks or even their international peers (Larsoen and Gilbert 2016), it is still too early to assess how well they actually follow through on these commitments. AIIB's ESF was only finalized in February 2016, and NDB's one month later. Recommendations have been made by experts, civil society organizations, and NGOs on the areas of work AIIB and NDB need to clarify or strengthen in their ESFs. For the AIIB, for example, questions have been raised around whether allowing countries to use their own social and environmental management systems might counteract AIIB's ambitious vision, its failure to provide binding time-limits for disclosing information about planned projects, and uncertainty surrounding the fairness and effectiveness of its complaints handling mechanism (Vilim and Hodl 2017). With regard to the NDB, clear sustainability criteria are still lacking, and more due diligence requirements for project selection, supervision, and implementation has been recommended for its ESF. Concerns have also been expressed about whether NDB is setting clear benchmarks for the assessment systems of member country or client and whether there are specific requirements for disclosure and consultation with the affected communities and civil society in a timely fashion (INESC 2017).

Among the 21 projects that AIIB has approved to date, most have been co-financed with the World Bank, the IFC, ADB or other lenders.⁴⁹ Some are optimistic that through this process of co-financing AIIB could not only reduce project risk but also gain experience addressing environmental and social practices from existing financial institutions (Wang 2016), while others are still suspicious about whether this arrangement will give local communities sufficient protections given that one of the motivations for the founding of AIIB was the desire to speed up the financing process (in contrast to, for example, the World Bank) (Summers 2017).⁵⁰

On climate, AIIB's position on coal remains ambiguous, because its new Energy Sector Strategy still allows the consideration of energy-efficient oil and coal-fired power plants under certain circumstances.⁵¹ To dispel this concern, AIIB's President Jin Liqun announced at its annual meeting in June 2017 that the bank has no plans to fund coal projects in the pipeline and reiterated the bank's commitment to the Paris Agreement (Chow 2017). The ESF policy of the AIIB states that it "supports the three aims of the Paris Agreement" on mitigation, adaptation, and redirection of financial flows. It

49 <https://www.aiib.org/en/projects/approved/>

50 his bilingual website lists concerns raised about individual AIIB projects: <http://mailchi.mp/1070b08745b5/chinese-responsible-investment-overseas-newsletter-aiib-707497#Eng%20version>

51 https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/_download/aiib-energy-sector-Strategy-2017.pdf

further states that it will prioritize "investments promoting GHG-emission neutral and climate-resilient infrastructure."⁵² As China's first effort to launch a multilateral financial institution through which to enhance its image as a responsible global power and to alleviate negative opinions held by Western countries about its outward investment in the world, it is possible that with (much larger) other sources of funding available for China's overseas energy and infrastructure investments through other channels, the AIIB will avoid projects that could be environmentally contentious.⁵³ In theory, the participation of other shareholders in the AIIB could also play a role in avoiding contentious projects but China contributed nearly \$30 billion of the initial \$100 billion capitalization – much higher than the second-largest contributor, India (which contributed \$8.4 billion), and so China will continue to play a leadership role.

In contrast with the diversified types of infrastructure projects that have been approved by the AIIB, NDB began with an explicit focus on renewable energy, with six out of its first set of seven projects invested in this sector. The second package of investment projects approved covered a wider range of projects, including transport development in China and Russia and poverty reduction in rural India.⁵⁴ These investment choices are aligned with the goal the bank set out in its general strategy for 2017-2021, which is to dedicate about two-thirds of its financing commitments to sustainable infrastructure development while retaining the flexibility to provide funding to other areas, including traditional infrastructure.⁵⁵ The NDB has a more nebulous policy on climate change as compared with the AIIB, namely that it seeks to "promote mitigation and adaptation measures to address climate change."⁵⁶

Unlike AIIB, which is headed by China, its largest shareholder, and backed by a founding shareholder membership of 57 countries, the decision-making power of the NDB is equally shared among the BRICS nations. Another differentiator between the two banks lies in their financing mechanism. While the AIIB, with the highest credit ratings from agencies Moody's, S&P Global, and Fitch,⁵⁷ intends to primarily mobilize finance from international capital markets the NDB, if not granted a solid international credit rating, may need to rely on bond issuances from member countries if it does not obtain solid credit ratings from international agencies.⁵⁸ The early ratings are mixed with Standard & Poor's rating it as B+ (long term)/negative outlook/B (short-term),

52 https://www.aiib.org/en/policies-strategies/_download/environment-framework/20160226043633542.pdf

53 The Chinese government has emphasized in various occasions that AIIB is not a vehicle to deliver on the BRI. The President of AIIB, Jin Liqun also tried to distinguish these two initiatives of China by saying "we operate by our standards and governments".

54 <https://www.ndb.int/projects/list-of-all-projects/>

55 <https://www.ndb.int/wp-content/uploads/2017/08/NDB-Strategy.pdf>

56 <https://www.ndb.int/wp-content/uploads/2017/02/ndb-environment-social-framework-20160330.pdf>

57 <https://www.cnbc.com/2017/11/30/china-backed-aiib-eyeing-europe-to-debut-global-bond.html>

58 The financing plan of the NDB is stated in its general strategy: <https://www.ndb.int/wp-content/uploads/2017/08/NDB-Strategy.pdf>

to provide one example.⁵⁹ Whether or not the bank will attract global investors from developed countries will affect its long-term financial viability. Interestingly, the bank may tap the growing market for green bonds, particularly Chinese green bonds, to support its operations. In June 2016, NDB successfully completed its first green financial bond issuance of 3 billion yuan (US\$435.5 million) on China's Interbank Bond Market, achieving a cover ratio of 3.1.⁶⁰ NDB is also considering raising funds via masala bonds (rupee-denominated bonds sold outside of India) and ruble-dominated bonds (Reuters).⁶¹ Projects to be financed by the proceeds of bonds issued in different markets will also be subject to information disclosure and other requirements.

Besides these new multilaterals, China has also established a host of bilateral and regional development funds to finance its BRI projects (Kamal et al. 2016). In terms of committed funds, the one that tops the list is the \$40 billion Silk Road Fund jointly backed by the State Administration of Foreign Exchange, China Investment Corporation, and the Chexim Bank. The Silk Road Fund states in its investment philosophy that it strives to promote environmentally friendly and sustainable development, and respects international standards and norms, and follows the laws and regulations of China and the host countries.⁶² It claims to have adopted professional risk management tools and models to help evaluate and control risks, but no more details could be found on the safeguards that are in place to assess and mitigate environmental impact in projects in which it invests.

The AIIB, NDB, and Silk Road fund have attracted considerable interest from countries in the West, but it is important to keep their size in perspective. Relative to the CDB and Chexim, the assets these three institutions combined comprise roughly 10 percent of CDB and Chexim's assets.⁶³ For the energy sector specifically, in 2016, CDB invested \$23 billion, Chexim \$8.3 billion, and the two combined \$14.2 in co-financing (Gallagher, K.P. 2017) compared with \$1.9 billion for the AIIB and NDB combined.⁶⁴

59 http://www.ndbbank.com/pages/english/investor_relations/pdf/reports/2016/06/A.pdf

60 http://europe.chinadaily.com.cn/business/2016-07/20/content_26151024.htm

61 <https://www.reuters.com/article/us-china-bonds-ndb/brics-development-bank-to-look-for-dollar-bond-funding-this-year-idUSKBN19ROQA>

62 <http://www.silkroadfund.com.cn/enweb/23798/23805/index.html>

63 Data from Kamal et al. for CDB, Chexim, and Silk Road Fund. Data for AIIB from September 2017 quarterly report. Data for NDB from 2016 annual report.

64 <https://www.aiib.org/en/news-events/news/2016/annual-report/index.html>; <https://www.aiib.org/en/projects/approved/index.html>; <https://www.ndb.int/projects/list-of-all-projects/>. No complete data on Silk Road energy financing could be found.

6.4 THE IMPACT OF THE GREEN CREDIT POLICY ON COMMERCIAL BANKS

After this discussion of the environmental performance of the policy banks who have been critical enablers for Chinese companies to expand overseas, we now move on to investigate the overall impact of China's green credit policies on domestic and outbound investments with a focus on commercial banks, another major source of financing for China's outbound investments. Green credit has accounted for the principal part of China's green financial business. By the end of 2016, CDB and Chexim Bank had extended \$200 billion in loans to the Belt and Road projects. On a par with this, the country's three biggest state-owned commercial banks (ICBC, BOC and CCB) provided a total of \$225.4 billion in credits to support the BRI.⁶⁵

Since CBRC issued the Green Credit Guidelines in 2012, provisions aimed at fending off environmental and social risks associated with credit activities abroad have been an integral part of China's green credit policies. According to Article 21 of the *Green Credit Guidelines*⁶⁶ and Article 4.21 in the *Key Indicators of Green Credit Performance* issued by CBRC in 2014, China's overseas projects are expected to comply with three layers of regulation – respectively green credit guidelines at home, law and regulations in the host countries concerning environmental protection, plus commitment to compliance with international standards and norms or best practice. In the Green Credit Statistics System launched by CBRC in 2013, overseas projects aligned with international standards are separately listed as the 12th category of green projects. However, projects in this category are still required to conform with any of the project descriptions listed in the other 11 categories,⁶⁷ which indicates consistency in the definition of green projects for the provision of green credits at home and abroad.

In practice, there are hardly any explicit preferential fiscal or taxation policies to promote the provision of green credits⁶⁸ nor is there a system of rewards and punishments associated with the enforcement of green credit policies.⁶⁹ Apart from reporting statistics twice a year on their green lending and the emission reduction capacity of their green credit projects as required by the Green Credit Statistics System (IFC 2016), banks are only required to conduct comprehensive self-evaluation against the green credit key performance indicators (KPIs) on an annual basis and file self-evaluation reports with CBRC.⁷⁰ Furthermore, among the nearly 300 KPIs, it seems

65 ICBC, the country's largest lender, committed \$67.4 billion in loans to support 212 Belt and Road projects by the end 2016. BOC provided \$67.4 billion in credits, and CCB, \$90 billion. <https://www.caixinglobal.com/2017-05-12/101089361.html>

66 <http://www.cbrc.gov.cn/EngdocView.do?docID=3CE646AB629B46B9B533B1D8D9FF8C4A>

67 <http://www.cbrc.gov.cn/chinese/files/2014/501344F75C984C158551B648F971B241.pdf>

68 <http://www.shfinancialnews.com/xww/2009jrb/node5019/node5036/node5037/u1ai182025.html>

69 <http://www.caijingmobile.com/yuanchuang/2017/04/08/327113.html>

70 <http://www.cbrc.gov.cn/EngdocView.do?docID=C5EAF470E0B34E56B2546476132CCC56>
Banks are expected to be rated based on these self-assessment results. This task has been transferred from CBRC to China Banking Association, which has yet released any rating results. www.cbrc.gov.cn/chinese/files/2012/E9F158AD3884481DBE005DFB0D99C45.doc

that only the 10 questions in section 4.2 are designed specifically for overseas projects while all other more detailed questions, such as those related to pre and post-lending management, risk control process, information disclosure, are designed for domestic projects. In short, the government has left the lending banks to decide on the amount of effort they wish to put in to ensure the green credibility of the projects they finance.⁷¹

In spite of the absence of government incentives and evaluation mechanisms, the majority of the top 21 Chinese banks (accounting for around 80% of total banking assets), have more or less integrated the concept of green credit into their operations as documented in Table 5. For instance, the “one-vote veto” practice with respect to environmental protection has been widely adopted among major commercial banks in the process of approving green credits. ICBC and CCB has developed the Green Credit Development Strategy. ICBC also has formulated (or updated) “industrial (green) credit policies” for 60 industries. China Merchants Bank has drafted the Investment Bank Green Credit Policy and Implementation Plan and Shanghai Pudong Development Bank has launched a green credit program for comprehensive financial services.⁷² In an effort to align with international standards, at least 7 commercial banks have referred to sustainability reporting promoted by Global Reporting Initiative while drafting their corporate social responsibility reports.⁷³ Although the Industrial Bank is still only one of two Chinese banks to have joined the Equator Principles (the other is Bank of Jiangsu), ICBC has also referred to Equator Principles and International Finance Corporation (IFC) key KPIs in the categorization of corporate loans (CICERO 2017), and ABC has signed an agreement with IFC for advice on the development of its green-finance portfolio (IFC 2016).

Browsing through the 2016 social responsibility or annual sustainability reports of China's major commercial banks⁷⁴, all appear to have reported their latest green credit balance. Most provide an estimation of the environmental benefits to be generated by their green credits and say they have reduced lending to overcapacity sectors, but none of them have specified green credits provided to overseas projects nor the potential environmental impact of these projects. These facts demonstrate from another angle that the emphasis of China's green credit policies to date has been on achieving domestic environmental benefits. Corresponding to this policy priority, up until

71 A similar doubt is raised in a WRI report: “However, the remainder of the CBRC guidelines fails to specify applicability of these environmental and social risk management practices to overseas or domestic lending. As a result, it is unclear how lending institutions will ultimately interpret the guidance in relation to their international lending. Other sections of the guidelines highlight the importance of environmental and social policies in risk management, and provide details about monitoring and supervision.” https://www.wri.org/sites/default/files/pdf/environmental_and_social_policies_in_overseas_investments_china.pdf

72 All these examples are quoted from the annual social responsibility reports of these banks.

73 http://www.syntao.com/Themes/Theme_Menu_Page_CN.asp?Menu_ID=49&Page_ID=14149

74 Only local commercial banks are not included in this list. CDB and EXIM Bank, which have been discussed above, also are not included here again. http://blog.sina.com.cn/s/blog_52f526870102x3p7.html

now, Chinese commercial banks have mainly channeled their efforts into improving domestic environment through green credits.

This reality has contributed to the continuous emergence of controversies and criticism surrounding the environmental impacts of China's overseas projects. A study of a few recent failed projects reveals that some failures have been caused by the lack of awareness or understanding of the latest environmental laws in the host countries or international standards; some have not disclosed loan information to the public as required; some banks have not acted with due diligence in the pre-loan investigation and post-loan monitoring of projects' and borrowers' quality.⁷⁵ According an expert in this field, Chinese banks may also be restrained in their ability to fully comprehend the environmental risks associated with overseas projects due to the lack of staff with sufficient professional knowledge of both environmental policies and project technologies (Qin 2017) as well as the non-existence of a rigorous quantitative instrument that could be widely used by banks to evaluate potential environmental impacts.⁷⁶

President Xi Jinping proposed in the keynote speech at opening ceremony of the Belt and Road Forum for International Cooperation in May 2017 the establishment of an international coalition for the green development of the BRI.⁷⁷ New overarching policies aimed at greening the BRI have emerged, providing signals of an emerging shift in government priorities. More specifically, in May 2017, MEP, MFA, NDRC and MOFCOM jointly issued the *Guidance on Promoting Green Belt and Road*, as mentioned earlier in the paper.⁷⁸ To facilitate thorough implementation of the guidance, MEP announced in the same month the *Plan for Eco-environmental Protection Cooperation under Belt and Road Initiative*, which proposes the formulation of an investment and financing directory for the BRI countries and other methods for enhancing the management of environmental risks in overseas projects.⁷⁹

In the financial sector, at the International Green Finance Seminar held in Beijing in September 2017 seven bodies, among them the China Green Finance Committee and the Ministry of Environmental Protection's Foreign Economic Cooperation Office jointly published the *Environmental Risk Management Initiative for China's Overseas Investment* (GFC 2017). The document, taking aim at the weak and often-criticized aspects of China's overseas investment,⁸⁰ include measures that, if implemented, that could greatly enhance the management of environmental risks of China's overseas investments. According to officials from the issuing bodies of this Initiative, following this first step of encouragement, more detailed guidelines will be issued in the future to help companies make environmental friendly investment decisions.⁸¹

75 <http://www.ghub.org/wp-content/uploads/2015/05/色信指引报告电子版.pdf>

76 <http://greenfinance.xinhua08.com/a/20170609/1708981.shtml>

77 http://news.xinhuanet.com/english/2017-05/14/c_136282982.htm

78 <http://vienna2.mofcom.gov.cn/article/headnews/201705/20170502571393.shtml>

79 http://www.mep.gov.cn/gkml/hbb/bwj/201705/t20170516_414102.htm

80 <https://www.chinadialogue.net/article/show/single/en/10117-China-on-path-to-greener-foreign-investment>

81 http://usa.chinadaily.com.cn/business/2017-09/06/content_31629425.htm

Table 5: Key Statistics from the 2016 Social Responsibility Reports of China's Major Commercial Banks (self reported)

Bank name	Loan balance in green projects by the end of 2016	Reduced loan balance to domestic overcapacity industries year-on-year	Reduced CO ₂ -equivalent emission and saved standard coal	Statistics on financial support to overseas projects
Industrial and Commercial Bank of China (ICBC)	RMB 978.56 billion, accounting for 14.2 percent of the bank's loans. Increased by 7 percent year-on-year.	Reduced by RMB 9.19 billion to the industries with serious overcapacity. Reduced by RMB55.05 billion to upstream and downstream sectors of the iron and steel industry and by RMB 33.5 billion to the entire coal industry.	The projects financed by ICBC's green credits are expected to reduce 73.34 million tonnes of CO ₂ -equivalent emissions and save 41.1 million tonnes of standard coal in 2016.	Support altogether 288 "go abroad" projects with credits valued at US\$78.6 billion.
Agricultural Bank of China (ABC)	RMB 649.432 billion	Loan balances to the coal and iron sectors were reduced by respectively RMB 20.6 billion and RMB 56.7 billion.	The projects financed by ABC's green credits are expected to reduce 60.09 million tonnes of CO ₂ -equivalent emissions and save 27.9 million tonnes of standard coal per year.	N/A
Bank of China	RMB 467.343 billion	N/A	N/A	By the end of 2016, BOC has provided altogether US\$400 billion to about 420 BRI projects. In 2016, support altogether 58 cross-border M&A with US\$14.8 billion.

Bank name	Loan balance in green projects by the end of 2016	Reduced loan balance to domestic overcapacity industries year-on-year	Reduced CO ₂ -equivalent emission and saved standard coal	Statistics on financial support to overseas projects
Construction Bank (CCB)	RMB 889.221 billion, an increase of 21.22 percent	N/A	To reduce 59.59 million tonnes of CO ₂ -equivalent emissions and save 26.33 million tonnes of standard coal.	N/A
China Industrial Bank (CIB)	RMB 490 billion	Loans provided to "two high and one excessive" industries reduced by RMB 8.06 billion year-on-year.	To reduce 74.08 million tonnes of CO ₂ -equivalent emissions and save 26.47 million tonnes of standard coal.	N/A
Bank of Communications	RMB 241.2 billion	N/A	To reduce 11919.72 tonnes of CO ₂ -equivalent emissions.	Support 122 key BRI projects
China CITIC Bank	RMB 25.48 billion, an increase of 7.52 percent	Loans provided to "two high" industries reduced by 12.82 percent year-on-year.	N/A	Establish and run an BRI fund, valued at over RMB 74 billion.
China Everbright Bank	RMB 49.38 billion, an increase of 27.55 percent	Loans provided to the ten overcapacity industries reduced by RMB 25.84 billion, 20.28 percent, year-on-year.	To reduce 1.04 million tonnes of CO ₂ -equivalent emissions and save 0.42 million tonnes of standard coal.	N/A
Huaxia Bank	RMB 45.35 billion, an increase of 13.48 percent	Loans provided to five major overcapacity industries reduced by 4.43 percent, year-on-year.	N/A	N/A

Bank name	Loan balance in green projects by the end of 2016	Reduced loan balance to domestic overcapacity industries year-on-year	Reduced CO ₂ -equivalent emission and saved standard coal	Statistics on financial support to overseas projects
China Minsheng Bank	RMB 13.82 billion	Loans provided to “two high and one excessive” industries account for 3.2 percent of the total.	N/A	N/A
China Merchants Bank	RMB 143.66 billion	Loans provided to “two high” industries reduced by RMB 4.2 billion year-on-year.	To reduce 7.96 million tonnes of CO ₂ -equivalent emissions and save 3.21 million tonnes of standard coal in 2016.	Support 83 BRI projects and provide US\$3.19 billion of loans to BRI projects and clients.
China Guangfa Bank	RMB 8.52 billion, an increase of 106 percent year-on-year.	N/A	N/A	Lent US\$0.5 billion to 28 projects abroad in 2016.
Ping An Bank	RMB 22.38 billion, an increase of 36.46 percent year-on-year.	Loans provided to overcapacity industries reduced by 0.65 percent year-on-year.	N/A	Loans provided in the offshore markets reached US\$13 billion.
Pudong Development Bank	RMB 173.81 billion	Loans provided to overcapacity industries account for 1.56 percent of the total.	N/A	Lent US\$2 billion in 2016 to support cross-border merger and acquisition.

6.5 THE IMPACT OF CHINA'S GREEN BOND POLICY

Ever since the first green bond was issued by the European Investment Bank in 2007, green bonds have gradually grown into a mature green financial product in the international market.⁸² But for Chinese investors, project owners and financial institutions, the green bond is still a new source of low-cost funding for green credits and investments, and a very promising one given its ability to unlock and mobilize resources from domestic and international capital markets with reduced risk. Market demand for green bonds has been strong in China and in 2017, US\$30.7 billion in green bonds were issued, making China the second-largest green bond issuer after the United States (Kaminker 2017). The size of the bond issuance is remarkable given that the Xinjiang Goldwind Science & Technology issued China's first official green bond in July 2015, just two years before. Ever since, oversubscription of green bonds has been commonplace in both onshore and offshore markets. Chinese green bonds are becoming increasingly attractive to foreign investors, with 70 percent of the recent ICBC “Belt and Road” climate bond being bought by European investors.⁸³ This RMB-denominated climate bond was issued by the Bank of China in November 2017 on the Euronext stock exchange, and proved to be highly attractive to international investors. The bond was issued in three tranches, namely 700 million euros, 500 million U.S. dollars, and one billion Chinese yuan, and it was as oversubscribed by more than a factor of two.⁸⁴

Domestically, PBoC is the regulator overseeing the interbank bond market and it also directly regulates issuance from financial institutions, while NDRC is the regulator responsible for corporate bond issuance (Dai et al. 2016). CSRC oversees the issuance of green bonds by stock exchange listed companies and asset-backed securities.

When issuing green bonds in the self-regulated international market, Chinese issuers willingly comply with the Green Bond Principles (GBP) and other guidelines launched and updated by the International Capital Markets Association (ICMA), which have been widely accepted voluntary code of conduct on the international markets (Xu and Wang 2016). As recommended by the GBP, Chinese cross-border issuers usually have their green bonds rated by the three major credit rating agencies and seek third party certification from approved verifiers so as to ensure international investors the environmental credentials of their bonds.⁸⁵ The four Chinese offshore green bonds issued in 2017 have also been certified by the Climate Bonds Initiative (CBI), indicating that Chinese issuers are aligning with global practice in labelled green bond issuance. The CBI promote investment in projects and assets necessary for a rapid transition to a low-carbon and climate resilient economy. CBI has developed a climate bonds standard and certification scheme for bonds. The Green Bonds Principles (GBI), updated as

82 <https://www.cbd.int/financial/privatesector/china-ecgfs-5Green%20Bonds.pdf>

83 <https://www.bourse.lu/pr-icbc-lists-belt-and-road-climate-bond>

84 http://www.bankofchina.com/aboutboc/bi1/201711/t20171116_10701924.html and http://www.xinhuanet.com/english/2017-11/29/c_136786158.htm

85 Details about each green bond ever issued in domestic or international market can be found at: <http://greenfinance.xinhua08.com/zt/database/index.shtml>.

of June 2017, are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the green bond market.⁸⁶ Apart from meeting pre-issuance requirements, most of Chinese issuers in the international market also regularly release reports on the allocation of proceeds, project examples and expected environmental impacts of their offshore green bonds (Kidney 2017).

Among the projects earmarked for China's domestically-issued green bonds, the majority of the proceeds from both corporate bonds and financial green bonds (mainly issued by local commercial banks) are to be used for domestic investments, but technically there is no apparent restriction on channeling these proceeds toward overseas projects. Indeed, there is precedence for green bonds issued in China's interbank market to be dedicated to offshore projects. A prominent example is the "panda bond" issued by the New Development Bank in July 2016 to finance green projects in BRICS countries, but no other examples could be found. By comparison, Chinese bonds issued in the international markets have a relatively higher chance of being invested in by other countries, as can be seen in Table 6.

While it is hard to associate standards or guidelines adopted in domestic or international markets with the destination of investment, it can be inferred from Table 6 that the limited number of Chinese green bonds issued offshore are on average of higher quality than the much larger number of green bonds issued in the domestic markets. This gap may exist due to the different definitions of green. Projects such as retrofits to fossil fuel power stations, "clean" coal and large hydropower plants, which conform with PBoC and NDRC green definitions, would not be considered green by many international standards. Approximately 34% of Chinese green bonds did not meet international definitions in 2016 (CBI and CCDC 2016).

On the disclosure of information, as a key component of the CBI, the Climate Bonds Standard & Certification Scheme (CBSCS) requires that, in addition to reporting on the use of proceeds annually, issuers should assess expected environmental objectives of the projects with qualitative and/or quantitative performance indicators where applicable (Dai et al. 2016). In the domestic markets, PBoC and CSRC encourage continuous tracking and disclosure on the use of proceeds and environmental benefits during the bond term, but quantitative analysis of the environmental impact is still not common (CBI 2015). Another factor that directly affects the green integrity of green bond markets is the requirement of third party verification. For the international markets, CBSCS has established a clear procedure for pre-issuance and post-issuance certification, including the nomination of approved verifiers.⁸⁷ For the domestic markets, PBoC and CSRC guidelines encourage issuers to conduct an external review

86 <https://www.icmagroup.org/green-social-and-sustainability-bonds/>

87 [https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202Dec2015%20\(1\).pdf](https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_0%20-%202Dec2015%20(1).pdf)

for their green bonds.⁸⁸ PBoC is expected to provide guidelines on procedures of external review for verifiers (CBI 2017), but for now, as the CSRC guidelines (issued in March 2017) point out, consistent verification standards and procedures need to be improved in China. In 2017, PBoC and NDRC reached agreement to integrate their green bonds standards⁸⁹ and the European Investment Bank and China Green Finance Committee have also committed to look at harmonization of green bond guidelines between EU and China (CBI 2017a). These efforts may help shrink the gap in the quality of green bonds issued in different markets, whether the bond proceeds are to be used for domestic or overseas investments.

Table 6: Green Bonds Issued by Chinese Corporate or Financial Institution Specifically Aimed at Funding Overseas Projects^A

Bond Issuer	Date of Issuance	Value and Duration	Platform for the Issuance	Rating Agency and Third Party Certification	Projects
Bank of China	Nov, 2017	RMB 1 billion, 700 million euros, and US\$500 million	Euronext Exchange	Certified by the Climate Bonds Initiative .	Wind power projects in France and Britain as well as 15 subway projects in China.
China Development Bank	Nov, 2017	US\$500 million five-year Green Bond, EUR 1 billion four-year Green Bond		A1 from Moody's and certified by the Climate Bonds Initiative and Ernst & Young.	To finance or refinance Green Projects, including those in the energy, transport and water sectors along the Belt-and-Road route initiative.

88 <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/2993398/index.html> <http://www.csrc.gov.cn/zjhpublic/G00306201/201703/P020170303534078925053.pdf>

89 <http://finance.caixin.com/2017-06-13/101101146.html>

Bond Issuer	Date of Issuance	Value and Duration	Platform for the Issuance	Rating Agency and Third Party Certification	Projects
Industrial and Commercial Bank of China (ICBC) — One Belt One Road Green Climate Bonds	Oct, 2017	US\$2.15 billion, issued in three tranches of EUR1.1 billion, US\$450 million and US\$400 million with 3- and 5-year tenors.	Luxembourg Green Exchange	A1 rating from Moody's and certified by the Climate Bonds Initiative.	To finance or refinance the four eligible categories initiated by ICBC globally in: renewable energy, low carbon and low emission transportation, energy efficiency, sustainable water and wastewater management.
China Three Gorges Corporation	June 2017	EUR650 million with 7-year tenors	Irish Stock Exchange	A1 rating from Moody's and A+ from Fitch. Certified by the Climate Bonds Initiative and Ernst & Young.	To finance European renewable energy projects based in Portugal and Germany acquired by China Three Gorges Corp
Bank of China	July 2016	US\$3.03 billion, consisting of one CNY, three US\$ and one EUR tranches with 2- and 5-year tenors	Luxemburg Branch and New York Branch of BOC	A1 rating from Moody's and A from Fitch. Certified by Ernst & Young.	3.32 percent of the net proceeds will be used for overseas green projects.

Bond Issuer	Date of Issuance	Value and Duration	Platform for the Issuance	Rating Agency and Third Party Certification	Projects
Zhejiang Geely Holding Group	May 2016	US\$400 million 5-year bond		A1 rating from Moody's and certified by Deloitte	To finance or refinance projects that enable the design, development and production of zero-emission capable vehicles by Geely's UK subsidiary London Taxi Company
Agricultural Bank of China	Oct 2015	US\$1 billion dual currency bonds with 2-5 year tenors	London Stock Exchange	A1 rating from Moody's and certified by Deloitte	To fund eligible green projects in China and overseas

A Only two Chinese bonds that have been issued in the international markets have not been included in this table: the green bond issued by Goldwind in July 2015 whose proceeds were claimed to be used for general working capital and refinancing purposes for its group companies (<https://www.reuters.com/article/china-greenbond/chinas-first-green-bond-to-spur-interest-for-future-deals-idUSL4N0ZW4XN20150720>) and the China Green Covered bond issued by Bank of China through its London branch in November 2016, whose proceeds were all used for domestic projects (<http://pic.bankofchina.com/bocappd/report/201704/P020170427665873125543.pdf>).

7. Policy Implications and Conclusion

The policies governing China's overseas development finance have been thoroughly assessed in this paper. While the governance system for overseas investments has matured, the policies governing the environmental dimensions of China's FDI are relatively weak and mostly voluntary in nature as can be seen in Table 4. The policies governing China's overseas investments remain inconsistent with the policies that govern domestic investments (see Chart 1). Chinese firms and investors are solely required to adhere to the environmental policies and preferences of the recipient country governments, and even then, there do not appear to be serious enforcement consequences for firms or banks that fail to do so.

Policies specifically aimed at limiting emissions of climate-altering greenhouse gases from China's FDI do not exist. On the other hand, the Chinese government's go-out strategy and industrial policies in support of strategic industries could result in a considerable amount of new "green" investment overseas since many of China's strategic industries are, in fact, green industries. The relatively recent solar investments in Pakistan are a good example of the alignment between strategic industry promotion and the provision of green finance. It is important to remember, however, that the predominance of China's global energy investments between 2000-2016 were in fossil fuels — \$54.6 billion in oil, \$43.5 billion in coal, \$18.8 billion in natural gas — compared with \$2.4 billion in solar, \$1.7 billion in wind, and \$24.9 billion in hydropower (Gallagher, K.P. 2017).

Domestically, the Chinese government is making a tremendous effort to promote and unlock green finance, and there are undoubtedly spillovers from the domestic provision of green finance to BRI countries. The remarkable growth of China's green bond market, for example, provides evidence that there is strong appetite for green growth inside China. International investors also appear eager to invest in green financial instruments within China. The question now is how to apply these same instruments to outbound investments, especially within the BRI.

Four main types of policies could be employed to green China's overseas investments. First, the Chinese government could tighten up the various policies that have been issued and convert the environmental safeguards from voluntary guidelines to mandatory provisions. High-carbon investments could be prohibited, or certain types of industries could be restricted for overseas investments just like they are for domestic investments.

Second, the banks could improve their own environmental governance through the development and enforcement of stricter environment and social safeguards. It is arguably in their interest to do so to mitigate social and environmental risks that could affect their global reputations and ability to make future investments. While the new

China-led multilateral banks like AIIB are beginning to do so, they are relatively small in China's overall banking system, and maybe should not even be considered "Chinese" banks. The fully Chinese state-owned and commercial banks have a long way to go.

Third, further deepening of industrial policies that promote cleaner industries' expansion overseas could naturally lead to a greening of overseas investments, and reduced carbon emissions in recipient countries. This process seems to have begun, with NDRC's new lists of unrestricted, restricted, and prohibited industries that are anticipated to be published in 2018. Although they are not publicly available, SASAC's list of restricted industries may also be moving in this direction. Conversely, restraining the export of surplus capacity in heavy, carbon-intensive industries like iron and steel, cement, or coal-fired power equipment could prevent the lock-in of long-lived carbon-intensive infrastructure overseas.

Finally, recipient countries must take a proactive approach to the quality of their own development and specifically to require that cleaner technologies be transferred or financed through their own environmental performance standards and safeguards. If the Chinese government's default position is that Chinese firms and banks must adhere to recipient country policies, then the recipient countries must develop sound environmental governance regimes. Indeed, China belatedly discovered the disadvantages of the "develop first, clean up later" economic growth strategy when its air and water became choked with pollution. China also discovered that when it imposed environmental performance standards, foreign firms were quick to transfer cleaner technology, but that they rarely went beyond compliance (Gallagher, K.S. 2006).⁹⁰

⁹⁰ In a case study of China's automobile industry, for example, co-author Kelly Gallagher showed that none of the foreign firms who formed joint ventures with Chinese auto companies offered any pollution-control technologies to their Chinese partners until required to do so by the Chinese government when it imposed its first pollution-control standards for motor vehicles.

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Appendix: Chinese Research Institutes Involved in Overseas Green Finance

Government		Year Est.	Focus of Study	Leaders	Relationship with the government
Green Finance Task Force	2014	To consider the steps that China could take to establish a green financial system: "Establishing China's Green Financial System" (March, 2015). The report proposes a general framework and 14 specific recommendations for establishing China's green finance system during the thirteenth five-year plan period.	Advisor: Pan Gongsheng, Deputy Governor, People's Bank of China. Domestic Convener: Ma Jun*, Chief Economist, Research Bureau, People's Bank of China International Convener: Simon Zadek, Co-Director, United Nations Environment Programme Inquiry into the Design of a Sustainable Financial System	The task force was convened by the Research Bureau of the People's Bank of China, made up of 40 experts from ministries, financial regulators, academics, banks and other financial institutions, complemented by international experts brought together by the UNEP Inquiry.	
The Green Finance Committee of the China Society for Finance and Banking	April 2015	The GFC was the main outcome of the Green Finance Task Force. The GFC will identify practical steps to achieve economic growth and environmental improvements through reform of China's financial system. The GFC focuses on areas of study, namely green finance services, responsible investment, fiscal and financial policy support, financial and legal infrastructure building, promotion of green sectors and awareness raising. Each area has a working group that will conduct research on international best practices, environmental externalities valuation, green bonds, environmental lender liability, financing models for the green sectors and information disclosure.	Chair of the GFC: Dr Ma Jun, (former) chief economist of PBOC's research bureau. The Committee consists of 140 institutional members including major banks, brokers, investment funds, and insurance companies, as well as policy makers, regulators and researchers and service providers in the area of green finance.	The GFC was initiated and administered by the People's Bank of China.	
G20 Green Finance Study Group	December 2015	The GFSG released its 'G20 Green Finance Synthesis Report' at the G20 Summit in 2016. After analyzing challenges such as externalities, maturity mismatch, lack of clarity in "green" definitions, information asymmetry and lack of analytical capabilities, the report contains seven key options for developing green finance.	The Study Group is co-chaired by China and the United Kingdom, with support from United Nations Environment Programme (UNEP) as secretariat.	It was established under the 2016 Chinese G20 Presidency.	

*Ma Jun stepped down from the PBOC position in August 2017 and was reported to join the PBC School of Finance under Tsinghua University.

UK-China/China-UK Green Finance Task Force	November 2016	The Task Force is tasked with increasing financial cooperation between the two nations and growing green investment and opportunities. Five Workstreams have been established to examine best practice and policy options around five main aspects: Assessing environmental risk; Green asset backed securities; Analyzing funding costs via ESG risks and assessments; Greening the Belt and Road and Scaling-up green capital flows. In September 2017, the TF launched its interim report: Globalizing Green Finance, Turning Green Momentum into Actions, which provides recommendations on the development of domestic and international green finance markets, the promotion of cross-border green capital flows as well as how to narrow the knowledge gap between public and private sector globally.	The Taskforce is led by Ma Jun, GFC Chairman and Sir Roger Gifford, GFI Chairman	The Task Force, set up by the Green Finance Initiative (GFI) of the City of London and their Chinese counterpart, the Green Finance Committee (GFC) of the China Society for Finance and Banking, brings together a group of leading industry and policy experts to develop market-led solutions.
China Institute of Finance and Capital Markets	June 2012	China Institute of Finance and Capital Markets (CIFCM) is a think tank affiliated with the China Securities Regulatory Commission.	In the Annual Conference of the Green Finance Committee held in April 2016, MA Xianfeng, Vice President of CIFCM introduced their research on Suggestions to Establish Mandatory Environment Information Disclosure System in Stock Exchanges, a study assigned by the Green Finance Committee.	
Chinese Academy for Environmental Planning	2001	Chinese Academy for Environmental Planning is a research institute affiliated to the Ministry of Environmental Protection. In April 2017, it published China Green Finance Policy Progress 2016 Report, which systematic reviewed the development in China's green finance policies.	Mr. Wang Jinnan is Wang Jinnan, head of the Chinese Academy For Environmental Planning.	
Chinese Academy of Fiscal Science, Ministry of Finance (Formerly known as Research Institute of Fiscal Science)	1956	In June 2017, Chinese Academy of Fiscal Science under China's Ministry of Finance jointly held a workshop with the Energy Foundation (EF) on Promoting Fiscal and Taxation Reform and Policies for Green Development. It has also completed two studies assigned by the EF, respectively How to Advance the Green Fiscal and Taxation Reform in China and Issues Related to the Promotion of Environmental Protection Tax Legislation.	Leaders and Research Associates of Chinese Academy of Fiscal Science have been members on Green Finance Taskforce convened by the Research Bureau of the PBOC and the CCICED Green Finance Reform Task Force.	

University/Academia				
Research Institute	Year Est.	Focus of Study	Leaders	
International Institute of Green Finance (IIGF), Central University of Finance and Economics Research Institute	September 2016	The IIGF grew out of the Research Center for Climate and Energy Finance (RCCFEF) of the Central University of Finance and Economics, which was founded in September 2011. It conducts research on credit, bonds, insurance, carbon-trading, information disclosure, and risk assessment, as well as climate finance. The IIGF works with numerous stakeholders in green finance. Within China, the IIGF is a standing member of Green Finance Committee of China Society of Finance and Banking. Internationally, the IIGF conducts joint research with organizations such as UNEP, UN PRI, the European Investment Bank, Cambridge University, and the IISD. Within green bonds the IIGF is working closely with the PBOC and the GFC to develop coherent standards in China. The IIGF further provides research on a number of areas within green bonds nationally and internationally. Lastly, the IIGF promotes and assist in the international integration of green bond standards by launching a Chinese green bond index on the Luxembourg Stock Exchange, and assisting Chinese organizations to launch green bonds abroad.	Wang Yao, Director General of the IIGF and Deputy Secretary General of the GFC.	Relationship with the government
Ecological Finance Research Center at the Renmin University	April 2014	As a subsidiary research center under Chongqing Institute for Financial Studies of Renmin University, it is the first ecological financial think tank in China, the center undertakes partial topic research in "China Green Finance Set Up Propose" for the People's Bank of China. It also undertakes important topic for China Council for International Cooperation on Environment and Development in "Reform of Green Finance and Build of Green Finance System", and published "Ecological Finance Blue Book".	Some scholars of this center include: Wang Wen, Executive Dean of Chongqing Institute for Financial Studies Liu Yuanchun, Vice President of Renmin University of China, and Executive Director of Chongqing Institute for Financial Studies.	According to information on its website, the research center promoted the establishment of the GFC. The GFC Secretariat is located and hosted in Chongqing Institute for Financial Studies of Renmin University. And it is this research center which performs the functions of the GFC.

Financial Institutions			
Research Institute	Year Est.	Focus of Study	Leaders
Institute of Finance and Banking, Chinese Academy of Social Sciences	2003	Researchers from the Institute have participated in major initiatives undertaken by the GFC and CCICED Green Finance Task Force.	Experts on green finance: An Guojun, Research Associate of Institute of Finance and Banking, CASS and Institute of Finance and Banking and Deputy Secretary General of the GFC Zhou Maoqing, Deputy Director and Research Fellow of Institute of Finance and Banking, Chinese Academy of Social Sciences
Green Credit Special Committee of China Banking Association	November 2014	One of the responsibilities of the Committee is to study the recent development of green credit business among domestic banks and formulate green credit regulation framework for its member entities.	China Development Bank was the first Chair for this Committee.
China Central Depository and Clearing Co Ltd.	1996	China Central Depository & Clearing Co. Ltd. (CCDC) is a board member of the Green Financial Committee. It has participated in the research of carbon finance infrastructure arrangements and successfully hosted the "10th Financial Street Forum" themed "The Analysis of the Green Bond Chain." CCDC and the Climate Bonds Initiative jointly issued China Green Bond Market 2016 and 2017 reports.	Mr Zong Jun is Director of CCDC R&D Department CCDC is the first central securities depository (CSD) approved by the State Council in China. It is a state-owned financial institution, which bears the national wills and represents market demands.
ICBC Urban Finance Research Institute	1993	An in-house think tank of ICBC. It has provided input to the standing committee of China's Green Finance Committee under the PBoC. In 2015, the Research Institute led one of the working groups established by the GFC to study how to incorporate environmental factors into stress testing in the banking system. It partnered with Trucost to create a tool, which enables Chinese banks and investors to understand and manage the risks they are exposed to through their corporate loans and equity investments in environmentally damaging sectors.	Experts on green finance: Zhou Yueqiu, Director of Urban Finance Research Institute and Vice Chairman of the GFC Yin Hong, Vice Director of Urban Finance Research Institute and Deputy Secretary-General of the GFC

NGO			
Research Institute	Year Est.	Focus of Study	Leaders
Greenovation Hub	May 2012	Greenovation Hub promotes the development and implementation of sound climate and environmental friendly policies through conducting in-depth analysis and research, and fostering dialogues among stakeholder. In the past, it had held a workshops focused on disclosure of environmental information related to banks' lending, and how the public can engage in obtaining such information and co-hosted workshop to discuss accountability mechanisms in ensuring adherence to environmental and social policies and providing redress to affected communities in the context of international investments by multilateral development banks and overseas investments by Chinese banks.	
The Institute of Public & Environmental Affairs	June 2006	The Institute of Public & Environmental Affairs (IPE) is dedicated to collecting, collating and analyzing government and corporate environmental information to build a database of environmental information. IPE's two platforms – the Blue Map website and the Blue Map app – integrate environmental data to serve green procurement, green finance and government environmental policymaking, using cooperation between companies, government, NGOs, research organizations and other stakeholders and leveraging the power of a wide range of enterprises to achieve environmental transformation, promote environmental information disclosure and improve environmental governance mechanisms.	

Global Environmental Institute - China	2004	<p>Global Environmental Institute (GEI) works alongside key policymakers, businesses, scientists, civil society leaders and local communities to foster dialogue and innovative solutions to protect the environment and enhance economic opportunity within China as well as in South East Asia and Africa.</p> <p>GEI is conducting scoping work in these development paths and working closely with China's investment banks including, AIB and China Exim Investment Bank, as well as advocating for green finance at high-level meetings.</p>
Green Watershed	2002	<p>Green Watershed (GW) is a local NGO in Yunnan province of China that focuses on participatory watershed management. It is one of the few Chinese NGOs that engage in Mekong River issues. It led a coalition of nine NGOs to launch a "Green Credit Advocacy" program in China, aimed at advocating for, and monitoring financial institutions to ensure that they fulfill their environmental and social responsibility.</p>

Consultancies			
Research Institute	Year Est.	Focus of Study	Leaders
CCICED Green Finance Task Force	2014	<p>Renmin University of China and the World Resources Institute have taken the lead in organizing this Task Force that combines knowledge of China's current situation with international experience in green finance. The Task Force was tasked with developing policy recommendations on green finance reform to improve China's environmental protection and control of pollution as part of achieving the goal of an ecological civilization. In November 2015, the Task Force released a report – Green Finance Reform and Green Transformation, which lays out clear recommendations for how the national government can put the right institutions in place to help shift investments from polluting to sustainable industries.</p>	<p>Chaired by Chen Yulu, President and Professor of Renmin University of China and Andrew Steer, President and CEO of World Resources Institute. Members included senior representatives from the People's Bank of China, the China Securities Regulatory Commission, the Ministry of Finance, the Ministry of Environmental Protection, the Chinese Academy of Social Sciences, and Renmin University. WRI also invited global experts on financial reform to join the Task Force, including from the OECD, the World Bank, the Climate Policy Initiative, and the UNEP Inquiry into the Design of a Sustainable Financial System.</p>
SynTao Green Finance	2005	<p>SynTao Green Finance provides consulting and researching services in responsible investment, ESG data, green bond verification, and other green finance areas. It initiated China Social Investment Forum, contributing to a responsible capital market in China. In 2017, SynTao Green Finance and Aegon-Industrial Fund Management co-launched the Decennial Report on Responsible Investment in China.</p>	<p>The China Council for International Cooperation on Environment and Development (CCICED) was founded in 1992 as a high-level international advisory body with the approval of the Government of China. The CCICED Chairperson is one of the leaders of China's State Council, responsible for environmental protection.</p>
CECEP Environmental Consulting Group	2001	<p>CECEP undertook research project "Green Project Environmental Benefit-Evaluating System" undertaken assigned by the Green Finance Committee. In 2016, it signed a strategic agreement with the Shanghai Stock Exchange, strengthening their cooperation in establishing and improving the standards and rules for listing green bonds. In 2017, together with China Central Depository & Clearing Co., Ltd. and the Climate Bonds Initiative, CECEP consulting.</p>	

List of Acronyms

ABC	Agricultural Bank of China
AIB	Asian Infrastructure Investment Bank
BRI	Belt and Road Initiative
BRICS	Brazil, Russia, India, China and South Africa
CBI	Climate Bonds Initiative
CBRC	China Banking Regulatory Commission
CCB	China Construction Bank
CDB	China Development Bank
CIB	China Industrial Bank
CIRC	China Insurance Regulatory Commission
CPC	Communist Party of China
CSRC	China Securities Regulatory Commission
ECA	export credit agency
EP	Equator Principles
ESF	Environmental and Social Framework
FDI	foreign direct investment
GBP	Green Bond Principles
GFC	Green Finance Committee
GHG	greenhouse gas
ICBC	Industrial and Commercial Bank of China
ICMA	International Capital Markets Association
IIGF	International Institute of Green Finance
KPI	key performance indicator
MDB	multilateral development bank
MEP	Ministry of Environment Protection
MMT	million metric tons
MoF	Ministry of Finance
MFA	Ministry of Foreign Affairs
MOFCOM	Ministry of Commerce
NDB	New Development Bank
NDRC	National Development and Reform Commission
NPC	National People's Congress
ODA	Overseas development assistance
OECD	Organisation for Economic Co-operation and Development
PBoC	People's Bank of China
SAFE	State Administration of Foreign Exchange
SASAC	State-owned Assets Supervision and Administration Commission
SEPA	State Environmental Protection Administration
SOE	state-owned enterprise
SRF	Silk Road Fund
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme



THE FLETCHER SCHOOL

TUFTS UNIVERSITY

The Climate Policy Lab (CPL)

Center for International Environment and Resource Policy (CIERP)

The Fletcher School
Tufts University
Cabot Intercultural Center, Suite 509
160 Packard Avenue
Medford, MA 02155

<https://sites.tufts.edu/cierp>

The Fletcher School at Tufts University was established in 1933 as the first graduate school of international affairs in the United States. The primary aim of The Fletcher School is to offer a broad program of professional education in international relations to a select group of graduate students committed to maintaining the stability and prosperity of a complex, challenging, and increasingly global society.

The Center for International Environment and Resource Policy (CIERP) was established in 1992 to support the growing demand for international environmental leaders. The Center provides an interdisciplinary approach to educate graduate students at The Fletcher School. The program integrates emerging science, engineering, and business concepts with more traditional subjects such as economics, international law and policy, negotiation, diplomacy, resource management, and governance systems.

The Climate Policy Lab (CPL) convenes teams of scholars and practitioners to evaluate existing climate policies empirically and works with governments contemplating new climate policies. The main questions the Lab seeks to answer are: Which climate policies work in practice? Which don't work? Why? Under what conditions would they work elsewhere? The scope of the Lab is global while remaining highly attuned to state, national, and bi-lateral policy processes. It has a particular emphasis on international comparative policy analysis.