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Energizing development finance? The benefits and risks of China's development finance in the global energy sector

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ABSTRACT

This paper provides the first estimates of China's global developmental finance institutions in general and China's policy bank lending to foreign governments for energy in particular. According to the China Global Energy Finance database, between 2000 and 2017, China Development Bank (CDB) and China Export-Import Bank (CHEXIM) provided $225.75 billion in overseas energy development finance. We find that: China's 'policy banks' and funds have doubled the availability of global development finance –and hold more assets than the major Western-backed MDBs operating in developing countries. With the onset of a new family of funds and multilateral development banks co-financed by China, China is poised to be the largest development lender in the world as Western-backed MDBs appear stagnated in their ability to increase their capital bases. China's global energy portfolio is heavily exposed to country, macroeconomic, climate, and social risks, however. To mitigate such risks and meet the broader sustainable development challenge for the 21st Century, China's development finance will need to shift the composition of its global energy lending in a significant manner.

In just over a decade Chinese policy banks have emerged as global leaders in development finance in general and in finance for energy projects in developing country governments in particular. Moving forward, China has founded or co-founded two new multi-lateral development banks (MDBs) and at least 20 regional and bilateral funds that will increase Chinese development finance abroad by orders of magnitude. Such a stepwise increase in global development finance arrives just in time, as the world faces major infrastructure and energy gaps and has just committed to increasing finance for sustainable development on a global scale.

China's global energy portfolio is heavily exposed to country, macroeconomic, climate, and social risks, however. To mitigate such risks and meet the broader sustainable development challenge for the 21st Century, China's development finance will need to shift the composition of its global energy lending in a significant manner.

This paper provides the first estimates of China's global developmental finance institutions in general and China's policy bank lending to foreign governments for energy in particular. We find that:

- *China's 'policy banks' and funds have doubled the availability of global development finance – and hold more than twice the assets of the major Western-backed MDBs operating in developing countries.* With the onset of a new family of funds and multilateral development banks co-financed by China, China is poised to be the largest development lender in the world as Western-backed MDBs appear stagnated in their ability to increase their capital bases.
- *China's national development banks already lent as much to foreign governments for energy as all the major Western-backed MDBs combined.* Between 2000 and 2017, Chinese banks almost tripled the amount of energy financing available to national governments, adding another US$225.75 billion dollars in energy finance for foreign governments. Not only did Chinese finance increase the total amount of finance, Chinese banks are financing energy projects all over the world and expanding the set of countries that receive energy financing as well.
- *Chinese energy finance is exposed to significant country and macroeconomic risk.* In contrast with the Western-backed development banks across the world, Chinese policy banks are engaged with countries with higher country risk ratings and in commodity-backed loans that risk stress given the fall in commodity prices and associated macroeconomic downturns in the developing world.
- *Chinese development banks are heavily exposed to climate and social*

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risk. China's energy loans are highly concentrated in fossil fuel extraction and power generation, especially coal. Indeed, Chinese development banks have provided upwards of US$44.5 billion in financing for global coal projects—projects that accentuate climate change and social risks. Using conservative estimates of the climate and local health costs of coal plant emissions, we calculate that the yearly social cost of Chinese overseas coal-fired power plants amounts to US$29.7 billion. Assuming a power plant lifetime of 30 years, total social cost could range from US$117 billion to US$892 billion.

As commodity prices fall and the macroeconomic outlook for many of China's borrowers declines, China will need to diversify its global energy portfolio. To meet these goals Chinese overseas development finance will need to make a significant change in composition of its lending portfolio. Such a shift will not only help China's banks mitigate the significant risks associated with the current portfolio of its policy banks, it will also enable China to meet its broader global commitments. Through the newly minted Sustainable Development Goals and again at the Paris Climate Summit of 2015, world leaders—China included— have committed to steering public finance toward energy and infrastructure in a manner that is environmentally sustainable and socially inclusive. Also in 2015, the governments of the United States and China committed to "controlling public investment flowing in projects with high pollution and carbon emissions both domestically and internationally." Later in 2016, China reinforced 'green finance' a global imperative under the G-20 with the establishment of G-20 study groups in both green finance and in climate finance.

This paper is organized in four parts. Part one presents an overview and estimates of China's emerging development finance architecture. Part two exhibits our estimates of the extent to which China's development banks are financing energy projects in developing countries in comparative perspective. Part three identifies some of the risks associated with China's overseas energy investments. Part four summarizes our findings and provides suggestions for further research and policy.

1. China's development finance architecture in comparative perspective

China is increasing the paid-in capital for its two global policy banks and has helped capitalize two new multilateral development banks, namely the New Development Bank and the Asian Infrastructure Investment Bank. According to our estimates, even before these new institutions get fully operational, China is emerging as the global leader in development finance. China has also co-established at least 20 regional and bi-lateral funds with a number of countries as well. This section provides an overview of these banks and funds, the majority of which are (or will be) significantly dedicated to financing energy and infrastructure.

Two of China's policy banks, the China Development Bank (CBD) and the Export-Import Bank of China (CHEXIM) already hold more assets than the combined assets of the Western-backed multilateral development banks. CHEXIM and the CBD have over US$2.5 trillion in assets, whereas the Western-backed banks hold just about US$1.4 trillion. That said, the China Development Bank's international holdings are roughly 30% of the total assets (Kong and Gallagher, 2017); all CHEXIM loans are international, albeit some are channeled through seller's credits to Chinese firms exporting or investing abroad. This puts the two banks' international assets at around US$1.1 trillion, giving China's policy banks almost 80% the amount of global assets of the major development banks (Fig. 1).

These two 'policy banks' as they are called in China, provide non-concessional and concessional (in the case of the CHEXIM) finance in virtually every corner of the world. The CDB holds over US$2 trillion in assets with roughly US$37 billion overseas, and CHEXIM holds US$480 billion in assets, which supports China's overseas development finance. Such assets of these two banks added together are more than the World Bank Group's International Bank for Reconstruction and Development. In just over a decade, China has doubled the amount of development finance in the world economy.

1.1. New multilaterals

In addition to making stepwise contributions in paid in capital to its two global policy banks, China recently helped found two global development banks, the New Development Bank (NDB) and the Asian Infrastructure Investment Bank (AIIB). The NDB was launched in July 2015 by Brazil, Russia, India, China and South Africa - collectively known as BRICS countries. The NDB provides financing to developing countries to help finance sustainable infrastructure projects, releasing its first set of financing packages for clean energy and largely financed from green bond issuances in the Chinese market, in the spring of 2016. Each BRICS member is expected to put an equal share into establishing the startup capital of US$50 billion with a goal of reaching US$100 billion. Under the current arrangement membership will be limited to BRICS nations, though future members will eventually be added—with the BRICS countries always holding a minimum of 55% voting power.

The Asian Infrastructure Investment Bank (AIIB) was created to support infrastructure construction in the Asia-Pacific region. The AIIB was proposed by China in 2013 and formally started operations in December 2015 after the Articles of Agreement (AoA) entered into force with ratification from 17 member states holding 50.1 per cent of the shares. This is in accordance with the AoA that requires ratification from 10 member states holding a total number of 50 per cent of the initial subscriptions of the authorized capital stock. By May of 2016, all 57 of AIIB's Prospective Founding Members (PFMs) have ratified the AoA, and have now grown to 84 approved members from around the world. The Memorandum of Understanding (MoU) specifies that the authorized capital of AIIB is US$100 billion and the initial subscribed capital is expected to be around US$50 billion. AIIB's investment capacity could reach US$250 billion by the end of 2020 in accordance with provisions made in its AoA. The Bank largely co-finances projects with the World Bank (WB) and Asian Development Bank (AsDB), particularly in the first years of its operations.

1.2. China-backed development funds

China has also pioneered a host of bilateral and regional development funds. These funds combine add upwards of US$164.4 billion in development finance provided by the Chinese in recent years. To our knowledge these funds have never been collated in one place. Our estimate of the breadth of these funds is in Table 1.

A major portion of these investments are in Asia as part of China's broader "Belt Road Initiative", with the largest being the Silk Road Fund established in 2014 with investment from state institutions including the CHEXIM and CDB. The fund is open to investors from other countries as well and has provisions to expand maritime connectivity between China and the rest of Asia (Central, South and Southeast Asia, the Middle East), North and Northeast Africa, and Europe. Another relevant fund is the Green Ecological Silk Road Investment Fund, a private equity fund for improving the ecological environment in the region.

In the larger Eurasian region, investments include the China-Central and Eastern European (China-CEE) Fund— set up to facilitate financing of projects to enhance inter-connectivity in the region, specifically in Eastern Europe— and the bilateral Russia-China Investment Fund (RCIF) established by two government-backed investment vehicles, the Russian Direct Investment Fund and China Investment Corporation (CIC). The RCIF will invest 70% of its capital in Russia and other CIS countries (currently Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan and Ukraine) and 30% in China.