Is China's Development Finance a Challenge to the International Order?

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Short running title: China's Development Finance

Research Highlights:

- Chinese development finance, 2012-2014, to 131 developing countries shows no geographic pattern, in particular no favoring of the belt and road initiative
- Chinese lending is indifferent to risk, in particular it is uncorrelated with indices of political stability and rule of law
- Some major borrowers from China have encountered debt sustainability problems while other borrowers are in good fiscal shape
- Chinese banks have been reluctant to follow international norms for environmental safeguards but seem to be evolving towards those norms

Abstract:

China is a major funder of developing country infrastructure, lending $40 billion annually through policy banks. Lending does not favor the belt and road above other regions. China's lending is indifferent to risk, i.e., it is uncorrelated with indices of political stability and rule of law. Some major borrowers with poor governance are beginning to have debt sustainability problems, while other borrowers are in good fiscal shape. Chinese banks have been reluctant to follow global environmental norms but seem to be evolving in that direction. Chinese actions seem more a revision of the global system than a challenge to it.

Key words: Asian Infrastructure Investment Bank; Belt and road initiative; Chinese economy; debt sustainability; foreign aid

JEL codes: E22, E61, F35

1. INTRODUCTION

China in recent years has become a major funder of infrastructure in the developing world. The big Chinese financing push started shortly after the global financial crisis (GFC). Starting in 2013 China "branded" the program under the rubric of the Belt and Road Initiative (BRI). In speeches in Kazakhstan and Indonesia, President Xi Jinping proposed the Silk Road Economic Belt and the 21st Century Maritime Silk Road. The former refers to the ancient overland Silk Road between China and Europe. The latter is a vaguer concept that in practice seems to incorporate the whole world. The BRI involves issues such as policy coordination and harmonization of standards, but at its heart is infrastructure financing.

In his opening remarks at the Belt and Road Forum in Beijing in May 2017 President Xi noted that:

> "Infrastructure connectivity is the foundation of development through cooperation. We should promote land, maritime, air and cyberspace connectivity, concentrate our efforts on key passageways, cities and projects and connect networks of highways, railways and sea ports. The goal of building six major economic corridors under the Belt and Road Initiative has been set, and we should endeavor to meet it. 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 improve trans-regional logistics network and promote connectivity of policies, rules and standards so as to provide institutional safeguards for enhancing connectivity."

The initiative has been met with enthusiasm by many developing countries, who see new opportunities for financing needed infrastructure. Some nearby countries such as India, on the other hand, have reacted with caution as they question China's strategic motivations. Developed countries of the West have also been reticent to endorse the program until they learn more about the details. A concern of Western countries is that China's efforts will undermine global norms, especially in the areas of debt sustainability and environmental and social safeguards.

This paper examines China's role in development finance and in particular addresses the issue of whether China is challenging global norms. China's effort is recent and data problems are legion. Given that the initiative is popular in many locations it is odd that China is so secretive about the lending amounts, terms, and specific projects funded. Most of the lending is coming from two big state-owned policy banks, China Development Bank and China EXIM Bank. It would be straight-forward for them to publish up-to-date data on lending to different countries, including the terms. In the absence of that kind of transparency, researchers have to make heroic efforts to compile their best estimates. The next section of the paper looks at the available estimates and paints a picture of the scale of Chinese financing and where it goes in terms of countries and sectors. Total lending to developing countries appears to be about $40 billion per year in the recent period, an amount that is significant and consistent with China's overall balance of payments.

The Third section of the paper takes up the issue of debt sustainability. The countries receiving significant finance from China vary significantly in the quality of economic governance. Some have very good governance, and some, quite poor. Not surprisingly, some of the countries with poor governance are beginning to have problems servicing their external debts. This raises some important questions of global governance: will the troubled countries go to the IMF, as has been the practice in the past? Will China change its behavior as recipient country debt reaches unsustainable levels?

The fourth section of the paper examines another important global issue, environmental and social safeguards in infrastructure projects. Most large projects have environmental risks and involve resettlement of communities. The multilateral development banks (MDBs) have developed through experience a set of rules and procedures for assessing and mitigating risks. Many client countries, however, find these procedures cumbersome and extra-legal. It is a fact that the MDBs have become very slow in the construction of infrastructure, and the clients had turned away from this source of finance even before China came on the scene. China's approach is to follow the laws and regulations of the country in which it is operating, which is a reasonable position. However, in some countries with poor governance regulations are mostly honored in the breech. How is the Chinese approach playing out on the ground? And is there evidence of any shift in the Chinese approach?

Most of the action up to now has come from CDB and EXIM. An interesting recent development covered in Section 5 is the establishment of the Asian Infrastructure Investment Bank, a Chinese-led MDB that has quickly attracted 56 member countries. In two years of operation AIIB has lent about $3 billion, a very small share of China's development finance; and three-quarters of the projects have been co-financed with the other MDBs. AIIB's lending will grow over time, however, and has the potential to directly and indirectly address some of the concerns about Chinese practices.

Section 6 concludes. It is too early to make a definitive judgment on whether China's finance is a challenge to the global economic order. There are certainly things to worry about such as growing indebtedness of some of China's big clients and environmental and social safeguards on the ground. But there are also signs of evolution. China stopped new funding for Venezuela, which is the most problematic of its major clients. Several of the major borrowers from China have turned to IMF programs, which is the traditional medicine for unsustainable debt. Chinese companies and lenders have been given voluntary environmental and social standards by the Ministry of Commerce, which is a step in the right direction. Most encouraging, AIIB is off to a good start and may bring about improvements in the operation of the whole MDB system.

2. CHINESE FINANCING OF THE BELT AND ROAD INITIATIVE

It is difficult to pinpoint exactly how much finance China is providing to the Belt and Road Initiative because of data problems. There are two main types of financing: outward direct investment (ODI) and Chinese development finance (CDF), that is, loans to developing countries primarily for infrastructure and largely coming from the two policy banks, China Development Bank and China EXIM Bank. China's Ministry of Commerce reports data by recipient country on ODI. However, more than half of the outflow is recorded as going to Hong Kong. It is unlikely that that is the final destination for all of this investment so it is impossible to know where this finance is going. For CDF, the policy banks do not report detailed lending to individual countries. They do report that their overall portfolio of overseas lending was $675 billion at end-2016, more than twice the size of the World Bank. At the time of the Belt and Road Forum, in May 2017, they announced that as of end-2016 about one-third of their lending had gone to BRI countries.

A data-set on China's development finance has been compiled by Dreher et al. (2017) under the title AidData. This dataset contains project-level information on Chinese official development finance to Africa, Asia, Europe, and Latin America from 2000-2014. The dataset was collected in two stages. In stage one, AidData identified projects undertaken in a particular country and supported by a specific supplier of development finance using Factiva, a Dow Jones-owned media database that draws on approximately 28,000 media sources worldwide in 23 languages. It also searched relevant government websites including Chinese Embassy websites, Economic and Commercial Counselor websites, and recipient aid information management systems (AIMS) to identify other potential projects, which might have been overlooked by media sources. In stage two, it conducted tailored searches on individual project records with Google and Baidu to confirm or disconfirm a project's existence and refine the accuracy of a record. The dataset does not include military aid. This approach should generate an unbiased estimate of commitments. It would be more difficult to estimate the flow of disbursements.

According to this data-set, China's development finance was quite modest up until the Global Financial Crisis, after which it increased significantly. It reached a peak of $50 billion in 2009 and since then has moderated to about $40 billion per year (Figure 1). About one-half has gone to BRI countries in the most recent years, which is a bit higher than the aggregate figures reported by the policy banks. The data-set also has a breakdown of projects by sector. By far the two biggest areas are transport and power generation (Figure 2). There are small amounts of financing for a large number of other sectors including education, health, and agriculture.

In earlier work I showed that China's ODI is similar to Western direct investment in that it is attracted to larger markets and to natural resource wealth, as measured by natural resource rents as a share of GDP (Dollar 2017). It is unlike Western investment, however, in that it is uncorrelated with a measure of property rights and rule of law. It is interesting to introduce BRI into that analysis. After controlling for those other variables, an indicator for the 64 BRI countries has a negative, insignificant coefficient (Table 1, column 1).[1] The dependent variable is the stock of ODI at end-2015, the most recent year for which there is comprehensive, cross-country data. It probably should be no surprise that BRI has had no impact on China's direct investment, as that should be largely commercial with much of it going to the U.S. and other advanced economies.

Columns 2 and 3 present analogous regressions for CDF. The dependent variable is the average of CDF for 131 recipient countries over the most recent three years of data: 2012-2014. BRI is a relatively recent initiative so that earlier financing would not necessarily be tied to it. A curious thing

[1] The belt and road countries are identified by the Hong Kong Trade Development Council, 2017, *The Belt and Road Initiative: Country Profiles,* http://china-trade-research.hktdc.com/business-news/article/The-Belt-and-Road-Initiative/The-Belt-and-Road-Initiative-Country-Profiles/obor/en/1/1X000000/1X0A36I0.htm

about the cross-country allocation of CDF is that it is hard to explain it at all. Population is the only variable that has significant explanatory power. Neither the size of GDP nor natural resource wealth matters. Unlike China's direct investment, its development finance is not aimed at natural resource rich countries. Political stability and rule of law are uncorrelated with the allocation. Rule of law has a negative, but insignificant coefficient. And an indicator variable for belt and road countries has an insignificant negative coefficient. The R2 is only 0.11, reflecting the fact that it is hard to explain the cross-country pattern of China's lending. Column 3 replaces BRI with a finer regional breakdown. There is a modest tendency for Africa to get more financing, but it is not statistically significant. Neither maritime Asia nor landlocked Asia gets more financing than other regions. Just looking at the raw data, 37% of China's financing in the 2012-2014 period went to Africa; 25% to maritime Asia; 14% to Latin America; and only 14% to landlocked Asia. In Africa in recent years, China has been providing about one-third of the external financing for infrastructure, which is very welcome given the infrastructure deficit on the continent (Dollar 2016).

For African countries, Johns Hopkins SAIS China-Africa Research Initiative (CARI) 2017 has a parallel effort to collect data on Chinese lending. CARI follows "a rigorous set of steps in triangulating and cross-checking reports of loans, emphasizing official websites of central banks and ministries of finance, Chinese contractors, and our own personal contacts in China and in African countries. The desk work was supplemented by in-country interviews and meetings with Chinese and African officials." There are 51 African countries covered by both AidData and CARI. The average annual lending to Africa, 2012-14, was $13.7 billion for the former and $12.8 billion for the latter. It is encouraging that the totals are so similar. Furthermore, the cross-country allocation in AidData has a correlation of 0.89 with the cross-country allocation in the CARI data. This similarity of resources in two independent efforts creates confidence in the methodology.

Some additional insight can be gained by focusing on the top 20 recipients of Chinese development finance, 2012-2014 (Table 2). The list does include some Asian economies that are along the Belt and Road, such as Iran, Pakistan, Kazakhstan, and Indonesia. But it also includes eight African countries: Angola, Cote d'Ivoire, Ethiopia, Kenya, Nigeria, South Africa, Sudan, and Tanzania; and three Latin ones: Venezuela, Ecuador, and Argentina. In the regressions, the rule of law index has an insignificant negative coefficient. Looking at the top 20 recipients, several have rule of law that is above the mean for developing countries, such as Indonesia, Sri Lanka, Kazakhstan, Ethiopia, Kenya, South Africa, and Tanzania; but others are rated very poorly on rule of law: Venezuela, Ecuador, Angola, Nigeria, Sudan, Iran, and Pakistan. This means that significant amounts of Chinese finance are going to risky environments, an issue to which I will return in the next section. The most important thing that we have established so far is that there is no geographic pattern to China's development finance: it seems more demand-driven, by which countries are willing to borrow, than supply-driven by a Chinese master plan.

3. GOVERNANCE ISSUES: DEBT SUSTAINABILITY

China's growing development finance raises several issues of global governance, the first of which is debt sustainability. Developing countries have suffered severe external debt crises from time to time: Latin America in the 1980s, East Asia in the 1990s, and Russia in 1998 are just some of the examples. As a result of these bitter experiences developing countries have become more aware of the issue of debt sustainability. External debt is different from domestic debt in that it has to be serviced ultimately through exports. Capital flows to developing countries go through cycles: at times, in the search for yield, global investors are willing to lend a lot at relatively low interest rates. It is attractive then to borrow externally in order to fund infrastructure. There is always a risk, however, of capital flow reversal and increases in interest rates. Chinese banks are secretive about their lending terms, but most of these loans are in dollars at flexible, commercial rates. Only about one-quarter of China's development finance, 2012-2014, is concessional enough to meet the standard of "official development assistance." As interest rates rise in New York and London, the cost of servicing loans from China will rise. The ability to service external debt also depends on the value of one's exports. Looking at the list of major borrowers from China, many are exporters of energy or minerals: Venezuela, Ecuador, South Africa, Nigeria, Angola, Iran, and Sudan, for example. Servicing debt may be reasonable at one price for exports, but become burdensome if the price falls significantly. The fall in the prices of energy and minerals in recent years is raising the specter of a new round of debt crises. In fact, the current trend of low commodity prices and rising dollar interest rates is putting the squeeze on the finances of developing countries.

Some, but not all, of the countries that have borrowed heavily from China in recent years are at risk of debt distress. The World Development Indicators include recent data on external debt relative to gross national income for 106 of the countries included in the database on CDF, including all of the top 20 borrowers. For these 20 countries, debt to GNI increased from 35% in 2008 to 50% in 2015.

For the other 77 developing countries there was a modest increase in external debt: from an average of 45% of GNI in 2008 to an average of 48% in 2015. The average level of debt for the major borrowers from China is not alarming. But the rapid increase is something of a concern. More important, the average disguises large variation at the country level. In the last couple of years large increases in debt, taking countries to risky levels, were experienced by Angola, Belarus, Cote d'Ivoire, Ethiopia, Kenya, South Africa, Ukraine, Venezuela, and Tanzania. A number of these countries have very poor governance, and it is not surprising that debt has not been used productively.

China's willingness to lend to countries with very poor governance may well prolong the poor governance. Ricardo Hausmann, an economist and a former planning minister for Venezuela, made this point in a 2015 op-ed for Project Syndicate:

> Venezuela has tried to finance itself with the help of the China Development Bank, which does not impose the kind of conditionality the IMF bashers dislike. Instead, the CDB lends on secret terms, for uses that are undisclosed and corrupt, and with built-in privileges for Chinese companies in areas like telecommunications (Huawei), appliances (Haier), cars (Chery), and oil drilling (ICTV). The Chinese have not required that Venezuela do anything to increase the likelihood that it regains creditworthiness. They merely demand more oil as collateral. Whatever the IMF's faults, the CDB is a disgrace.

Is China violating norms of global finance? At this point it would be hard to argue that. In the case of Venezuela, China has had to renegotiate loan terms in favor of Venezuela because the country was unable to service the original loans once the price of oil fell. As Venezuela's economic crisis has deepened in the face of poor economic management, China has stopped making new loans to the country, indicating that it is unwilling to underwrite the regime with a blank check. Venezuela is having great difficulty servicing its debts this year and probably will have to go to the IMF eventually.

Of the countries that have borrowed heavily from China, several currently have IMF programs to help with unsustainable fiscal and balance of payments problems: Cote d'Ivoire, Kenya, and Ukraine (IMF 2017). Other countries that have borrowed heavily from China, on the other hand, are in good fiscal and financial shape: Kazakhstan and Indonesia would be examples.

An interesting recent development is that China is providing $50 million to fund a China-IMF Capacity Development Center.[2] This virtual center will be under IMF administration, will be anchored in Beijing, and will offer courses both inside and outside China on core Fund topics. Roughly half the participants will be Chinese officials, and half, officials from other developing countries, including countries along the Belt and Road Initiative. One of the important topics that will be emphasized initially is debt sustainability analysis. The People's Bank of China is the driving force behind this initiative, and curiously PBC represents China in MDBs such as the African Development Bank and the Inter-American Development Bank. PBC naturally has more awareness of this issue than other Chinese agencies and wants the knowledge to be spread within China, and also wants to strengthen the capacity of other developing countries. In the end it is the governments of borrowing countries that need to demonstrate discipline and far-sightedness.

On the issue of debt sustainability, a balanced assessment is that most of the developing countries taking advantage of Chinese finance for infrastructure are in sound fiscal condition. A few have taken on excessive amounts of debt, and they have turned to the IMF for the traditional medicine of adjustment policies and emergency finance. Venezuela is the one case in which China's financing may have enabled poor economic policies to persist. But China has stopped new funding and it seems likely that Venezuela will go the IMF in the end.

[2] IMF, *IMF and the People's Bank of China Establish a New Center for Modernizing Economic Policies and Institutions,* May 14, 2017, https://www.imf.org/en/News/Articles/2017/05/14/pr17167-imf-and-china-establish-a-new-center-for-modernizing-economic-policies-and-institutions

4. GOVERNANCE ISSUES: ENVIRONMENTAL AND SOCIAL SAFEGUARDS

A second issue raised by China's belt and road lending concerns environmental and social safeguards. China is funding infrastructure projects that typically carry significant environmental risks and involve the involuntary resettlement of large numbers of people. China so far has been reluctant to subscribe to any international standards for environmental and social safeguards. Its position is that it follows the laws and regulations of the host country. This is a reasonable point of view, consistent with China's general position that countries should not interfere in each other's internal affairs. The problem, however, is that the implementation of environmental and social regulations is often weak, especially in countries with weak governance.

The multilateral development banks that fund infrastructure in the developing world have developed over time stringent environmental and social safeguards. Led by the World Bank, these standards have been developed since the 1990s, primarily in response to pressure from civil society groups in wealthy countries. The safeguards are an area of tension between the rich countries that fund the multilateral banks and the developing countries that borrow from the banks. This tension is captured in a study by the Intergovernmental Group of Twenty-Four, which was established in 1971 to coordinate the positions of developing countries on monetary and development issues (Humphrey 2015, p. 19):

> One aspect of the business practices of the World Bank and major RMDBs [regional multilateral development banks] that has a particularly strong impact on infrastructure investment is environmental and social safeguard policies. Safeguards comprise procedures and restrictions on different types of lending operations meant to "safeguard" the project from having negative impacts on the environment and social groups. Safeguards were first instituted at the World Bank in the 1990s, and the other major RMDBs followed suit in subsequent years. The World Bank's safeguards are still considered the most comprehensive

> and rigorous, but the safeguards of the AsDB [Asian Development Bank], IADB [Inter-American Development Bank], and AfDB [African Development Bank] have been gradually tightened over the years such that the differences between them are relatively small, particularly on the hot-button issues of environmental assessment and resettlement.
>
> As a project undergoes the initial screening process, MDB [multilateral development bank] staff members determine whether it triggers any of the MDB's applicable safeguards. Should that be the case, a separate series of special requirements must be followed before the loan can be approved and disbursed. The most frequently triggered safeguards in the case of the World Bank relate to environmental assessment and involuntary resettlement, and most frequently affect investment projects in the transportation, energy, and urban sectors. The required procedures are extraordinarily detailed and specific, and in many cases (notably, the World Bank's IBRD [International Bank for Reconstruction and Development] and IDA [International Development Association]) extremely difficult for borrowers and even staff to fully understand. Requirements often include time-consuming, lengthy studies to be undertaken by third-party experts (usually at the government's cost), lengthy consultations with affected parties (sometimes including unelected non-governmental organizations), extensive mitigations measures, and lengthy mandatory prior public disclosure and comment periods during which time the project cannot move ahead. These requirements supersede whatever national laws may be in place in the borrowing country—a particularly troubling point of principle for many borrowing countries, beyond the practical impacts of safeguards.

It is fair to say that these procedures developed by the World Bank are the gold standard of environmental and social safeguards in infrastructure projects. However, they have had a number of unintended consequences. It has become time-consuming and expensive to do infrastructure projects with the World Bank or the Asian Development Bank, and as a result developing countries have turned to other sources of funding. Infrastructure was the original core business of the World

Bank, accounting for 70% of lending in the 1950s and 1960s. That has steadily declined to about 30% in the 2000s. Looked at another way: all of the multilateral development banks together provided about $50 billion of infrastructure financing in 2013, well under 1% of total infrastructure spending in developing countries. Hence, the multilateral banks have developed gold-plated standards, but they apply to only a tiny fraction of investment.

Given this situation, the emergence of China as a major funder of infrastructure projects has been welcomed by most developing countries. China is seen as more flexible and less bureaucratic. It completes infrastructure projects relatively quickly so that the benefits are realized sooner. However, China's approach of relying on a recipient country's own laws and regulations has its own risks. Some of the infrastructure projects that China has proposed in Latin America, such as the Nicaragua Canal or the Brazil-to-Peru rail across the Amazon and the Andes, carry serious environmental and social risks. Such projects call for carefully balancing development needs with environmental risks.

The Working Group on Development and Environment in the Americas, a multi-university effort, carried out case studies for eight countries on the question of whether Chinese trade and investment had led to environmental degradation. On the one hand, they conclude that "Chinese trade and investment in Latin America since the turn of the 21st century was a major driver of environmental degradation in the region, and was also a source of social conflict." (Ray et al. 2015, p. 2) On the other hand, they find evidence of positive evolution: "Chinese investors show an ability to exceed local standards, but their performance varies widely across different regulatory regimes and between more experienced and newer firms. There is an important role for Latin American governments and civil society to raise the performance level across the board, through holding firms accountable and facilitating learning between firms." (Ray et al. 2015, p. 3)

A case study of Chinese construction of hydro plants in Cameroon found a similar result (Chen & Landry 2016). One Chinese contractor executed a World Bank project for a hydro plant. The implementation carefully addressed environmental and resettlement issues and provided a mechanism for redress for affected people. However, it took seven years from initiation of the project until the start of construction. At the same time another hydro project, financed by China EXIM and implemented by a Chinese contractor, moved much faster – four years from initiation to start of construction. The Chinese financing was also much more expensive: a flexible rate of Euribor + 310 basis points; 15-year term with 5 years grace. The World Bank financing was at a fixed 0.5% interest rate with 40-year term and 10 years grace. The case study concludes (p. 17) that:

> The Chinese-financed project complied with all legal requirements and with Eximbank's own policies. However, in managing both foreseen and unforeseen social and environmental impacts, the type of response, and degree of responsibility taken by the financiers differed. Both projects struggled with problems surrounding the Chinese contractors and labor issues. However, the autonomous managers of the World Bank project enjoyed far better capacity and enforcement mechanisms, and a greater willingness to use them to force compliance. Both China Eximbank and the World Bank have upped their game in prioritizing environmental norms and standards: however, the severity of these standards, and the means by which they are applied, differ. The World Bank, while aggressively re-entering the hydropower sector, has demonstrated its prioritization of its safeguard policies and the political will to enforce them—in the case of LPHP, stepping in to support the EDC in managing breaches of contract. On the other hand, China Eximbank is evolving in its stance towards norms of environment and social impact mitigation. In the case of Memve'ele, it appears to have played a silent role in the overall project implementation: while environmental impact mitigation and assessments were a condition of the loan disbursement, enforcement and monitoring was largely the responsibility of the GOC, for better or worse, showing a gap between theory and practice. There is something of a trade-off, as some GOC respondents intimated, between Chinese and

Western IFI financing: while financing from China is faster and less onerous, it comprises a risk of more issues arising at later stages of project implementation.

An important recent development is that MOFCOM has issued guidelines on environmental and social policies for Chinese firms investing abroad (Leung & Zhao 2013). The guidelines require Chinese companies operating overseas to conduct environmental impact assessments, develop mitigation measures, and work with local communities to identify potential negative impacts of investments. While implementation of the guidelines is left to individual investing companies, this is still an encouraging example of China evolving in the direction of global norms.

5. THE ROLE OF THE ASIAN INFRASTRUCTURE INVESTMENT BANK

While the bulk of the current funding for BRI comes from the existing policy banks, in the future the Asian Infrastructure Investment Bank (AIIB) will also play a role. AIIB was established under Chinese leadership to address a number of weaknesses in the existing system of multilateral development banks. Banks such as the World Bank and the Asian Development Bank (ADB) have traditionally been dominated by the U.S. and other developed countries. Around the time of the GFC an international commission under the chairmanship of Ernesto Zedillo examined the performance of the MDBs and made recommendations for modernizing them. This commission had good representation from the developing world (Zhou Xiaochuan from China, for example) and made a series of practical recommendations: increase the voting shares of developing countries to reflect their growing weight in the world economy; abolish the resident board as an expensive anachronism given modern technology; increase the lending capacity of the MDBs to meet growing developing world needs; re-establish the focus on infrastructure and growth; and streamline the implementation of environmental and social safeguards in order to speed up project implementation.

China generally shared these criticisms of the MDBs. In the wake of the Zedillo report, however, there was no meaningful reform. This frustration with lack of reform in the World Bank and IMF influenced China to launch a new development bank. He (2016 pp. 3-4) notes: "Indeed, China and other emerging powers have criticized the World Bank and the IMF for their inefficient and over-supervised processes of granting loans. The current gap between the demands for infrastructure investment and available investment from existing international financing organizations in developing countries creates an opportunity for emerging economies to establish a new type of bank with a directed focus in this area." The new bank is also a way for China to put its excess savings to use through a multilateral format, to complement (and perhaps provide some competition with) its bilateral efforts.

The charter of the AIIB follows very much in the spirit of the charters of the World Bank and ADB, but it also incorporates virtually all of the Zedillo report recommendations: majority ownership by the developing world, no resident board, authority to lend more from a given capital base, a focus on infrastructure and growth, and environmental and social guidelines that should be implemented “in proportion to the risk” (per AIIB website).

The issue of environmental and social safeguards was a key factor in the brouhaha around the founding of the new bank. The U.S. and Japan opposed the effort primarily due to concerns over governance, including the issue of environmental and social safeguards. Other major Western nations such as the United Kingdom, Germany, France, and Australia all chose to fight these battles from the inside.

AIIB has promulgated environmental and social policies which on paper are similar to the principles embodied in World Bank safeguards: environmental and social assessments to analyze risks; public disclosure of key information in a timely manner; consultation with affected parties; and decision-making that incorporates these risks. The AIIB approach, however, differs from that of the World Bank by avoiding detailed prescriptions for how to manage the process. The World Bank’s detailed regulations – literally hundreds of pages – inevitably make implementation slow and bureaucratic. Furthermore, management tends to be very risk-averse, so the response to problems is often to conduct additional studies at extra expense (paid for by the borrower). Developing countries have learned not to take complicated, risky projects to the existing banks, when in fact those are exactly the projects that would benefit the most from the assistance of multilateral institutions.

AIIB’s leadership hopes that the bank can meet international standards but be more timely and cost-effective. This is largely a matter of implementation and it will take time and experience on the ground to see if the effort is a success. In its first two years of operation AIIB lent about $3 billion, with three-quarters of its projects co-financed with the World Bank or regional development banks. It will take time for AIIB to build up a portfolio of projects that it developed on its own.

AIIB joins the Andean Development Corporation (CAF) as a multilateral bank in which developing countries have the majority of the shareholding, so it follows that the preferences of the bank align more with those of developing countries. It is interesting that CAF relies on borrowing countries' own environmental and social regulations in implementing projects. AIIB is evolving in the same direction. This could be a very positive innovation: since most investment and growth now take place in developing countries, it would be more efficient if development bank activities reflected the preferences of those countries. If AIIB's activities can put pressure on the World Bank and the regional development banks to streamline their procedures and speed up their infrastructure projects, then this would be a positive change to the global system that emanated from China.

6. CONCLUSIONS

China's emergence as a major funder of infrastructure is a recent phenomenon so initial conclusions are naturally tentative. The one strong conclusion is that China should publish more data on its lending, the amounts to different countries, and the terms and specific projects. The AidData and CARI data are great efforts to fill the information gap, but they inevitably contain errors. China's financing is largely welcome, so it would be in China's interest to be more forthcoming with data.

Looking at the allocation of China's development finance, it is striking that there is no geographic pattern. Up through 2014, the major borrowing countries include some along the belt and road: Kazakhstan, Indonesia, Pakistan, and Iran. But there is more financing for Africa than for Maritime Asia, and major borrowers such as South Africa, Angola, Cote d'Ivoire, Sudan, and Nigeria are clearly not on any maritime path from China to Europe. Latin America also figures prominently in the borrowing, notably Argentina, Venezuela, and Ecuador. The lack of geographic pattern to the lending suggests that it is driven more by demand – who is willing to borrow from China – than by any supply-side masterplan.

Another feature of China's lending is that it is indifferent to risk, a trait that it shares with China's overseas direct investment. In the case of lending, the allocation is uncorrelated with indices of political stability and rule of law. In practice, this means that some major clients are well-governed (Kazakhstan, South Africa, Indonesia, and the East African states), while others suffer from poor governance: Angola, Ecuador, Venezuela, Pakistan, Sudan, and Iran, for example. History suggests that countries with poor governance are more likely to run into debt problems (projects are not managed well and even if completed have poor returns because of bad overall investment climate). China's major clients have on average seen significant increases in external debt to GDP in recent years, raising fears of a new round of debt crises. So far, most of the countries in trouble have turned to the IMF, which is the traditional way to deal with unsustainable fiscal and balance of payments problems. Venezuela stands out as a country that has resisted economic reform and IMF assistance and has used Chinese financing to delay the day of reckoning. But even here China has stopped providing new money as the situation has deteriorated.

Concerning environmental and social safeguards for infrastructure projects, China has identified an issue that resonates with other developing countries. The World Bank and other multilateral development banks have been imposing environmental and social standards that reflect the preferences of rich-country electorates. Developing countries have been voting with their feet and have turned away from those banks as important sources of infrastructure financing. In general, they welcome Chinese financing of infrastructure. The response among developing countries to China's proposal for a new infrastructure bank, AIIB, was especially strong. Asian countries that are not particular friends of China, such as India, Indonesia, and Vietnam, were quick to sign up for the effort. AIIB's attempt to develop workable safeguards to address environmental and social risks without the long delays and high costs of practices at existing multilateral development banks is an important innovation. Latin American countries have indicated their preference by borrowing more from Chinese banks for infrastructure than from the World Bank and IADB. The Chinese-financed projects, however, do carry significant environmental and social risks and it will take strong oversight from Latin American governments and civil society to ensure that benefits exceed costs. Environmental and social safeguards are an example of an area where China may end up modifying global norms to make them align better with developing country preferences.

In conclusion, it is hard to see China's development finance as a challenge to the existing economic order. It does raise issues of debt sustainability and environmental and social safeguards. But there is evidence that China is evolving in the direction of global norms. How to provide development finance effectively is a learning experience and China is likely to improve over time. Also, there is no presumption that the pre-existing system is perfect. So, China may well bring positive changes to development finance. How best to encourage more effective development assistance from China and from other sources? First, it makes sense to support AIIB. The Western countries that joined at the establishment made the right choice. Compared to China's policy banks, AIIB is transparent, multilateral, and well-governed. It pays attention to fiscal sustainability and environmental and social standards. Second, it would be smart for the U.S. and other Western countries to support reform and expansion of the existing MDBs. The fact that there is so much demand from developing countries for China's development finance reveals that there are a lot of unmet infrastructure needs. The private market does a poor job of financing infrastructure in developing countries. The Zedillo report provided a game plan for reform and expansion of the World Bank. The U.S. should support a capital increase and expansion of the voting shares of developing countries. The institution should be refocused on infrastructure and growth. It would be very healthy to have competition among a reformed World Bank, AIIB, and the Chinese policy banks.

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Table 1: Allocation of Chinese ODI and CDF among recipient countries

Dependent variables	Ln ODI 2015		Ln CDF 2012-14			
Specification	1		2		3	
Number of countries	172		131		131	
	coefficient	t-statistics	coefficient	t-statistics	coefficient	t-statistics
Ln GDP 2015	**0.43***	2.19	0.01	0.07	-0.02	-0.14
Ln population 2015	**0.43***	1.95	**0.85***	2.57	**0.98****	2.97
Natural rents(% of GDP)	**0.08*****	3.61	0.02	0.37	-0.03	-0.42
Political Stability 2015	0.52	1.59	0.96	1.09	1.26	1.42
Rule of Law 2015	0.18	0.53	-0.46	-0.44	-0.56	-0.53
Belt and Road Initiative (BRI)	-0.34	-0.92	-0.62	-0.59	-	-
Neighboring Country	**2.54*****	3.67	2.28	1.33	-	-
Africa	-	-	-	-	1.29	0.76
Maritime Asia	-	-	-	-	-0.82	-0.48
Land-locked Asia	-	-	-	-	1.42	0.62
Latin America and Caribbean	-	-	-	-	-0.55	-0.31
Europe (omitted)	-	-	-	-	-	-
R^2	0.46		0.11		0.12	

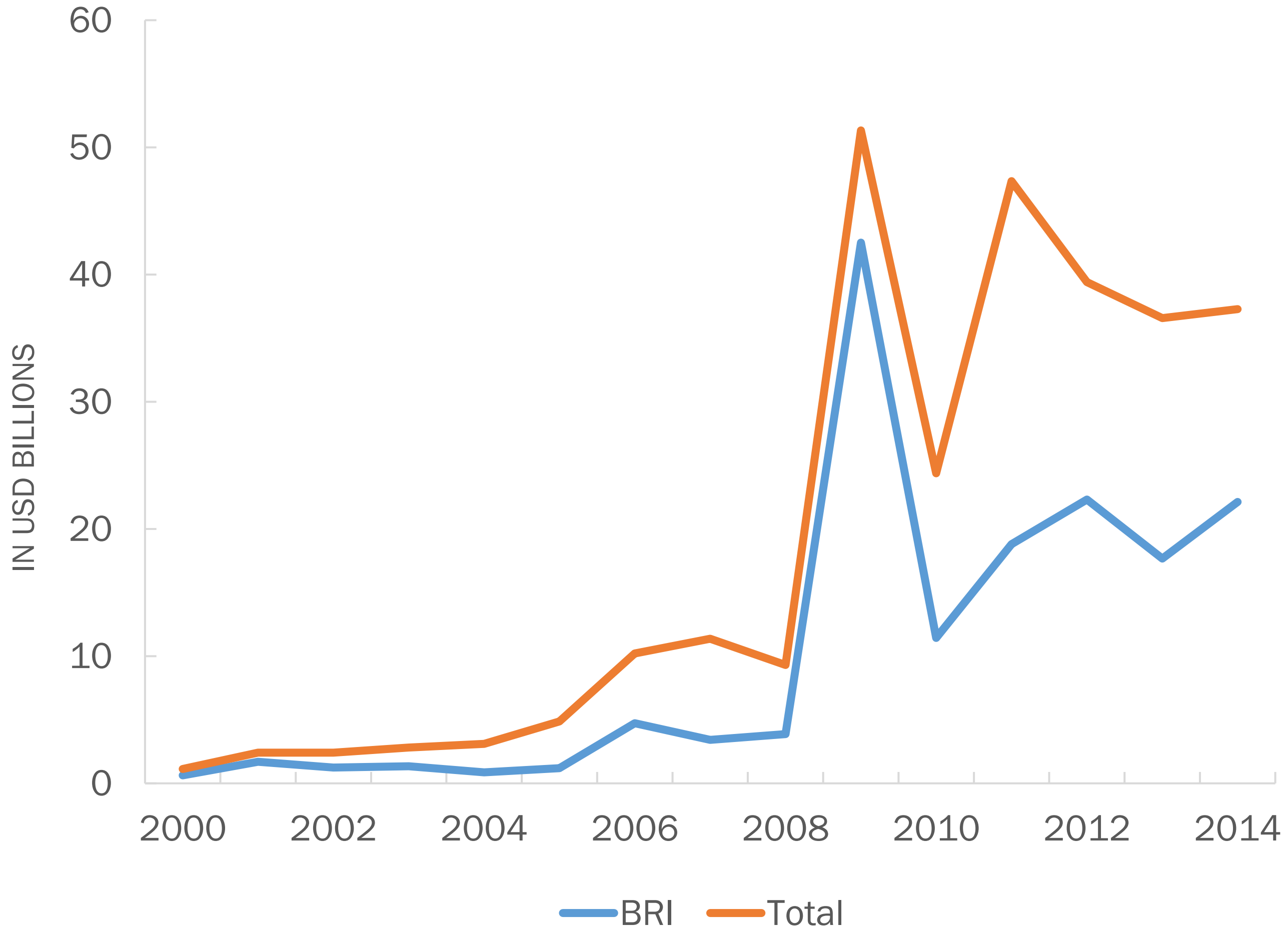
Note: Significance level: *0.1 **0.01 ***0.001

Table 2: Chinese development finance: Top 20 borrowers, 2012-2014

Country	Average annual borrowing 2012-2014 (USD Billion)	Rule of Law 2015
Pakistan	4.16	-0.79
Laos	2.74	-0.75
Ethiopia	1.85	-0.44
Venezuela	1.82	-1.99
Angola	1.65	-1.07
Belarus	1.48	-0.79
Sri Lanka	1.45	0.07
Kenya	1.29	-0.49
Cote D'Ivoire	1.25	-0.62
Ecuador	1.19	-1.03
Ukraine	1.02	-0.80
Cambodia	0.95	-0.92
Nigeria	0.94	-1.04
Argentina	0.92	-0.80
Indonesia	0.91	-0.41
Tanzania	0.86	-0.43
Kazakhstan	0.85	-0.37
Sudan	0.74	-1.18
South Africa	0.73	0.06
Iran	0.71	-0.95

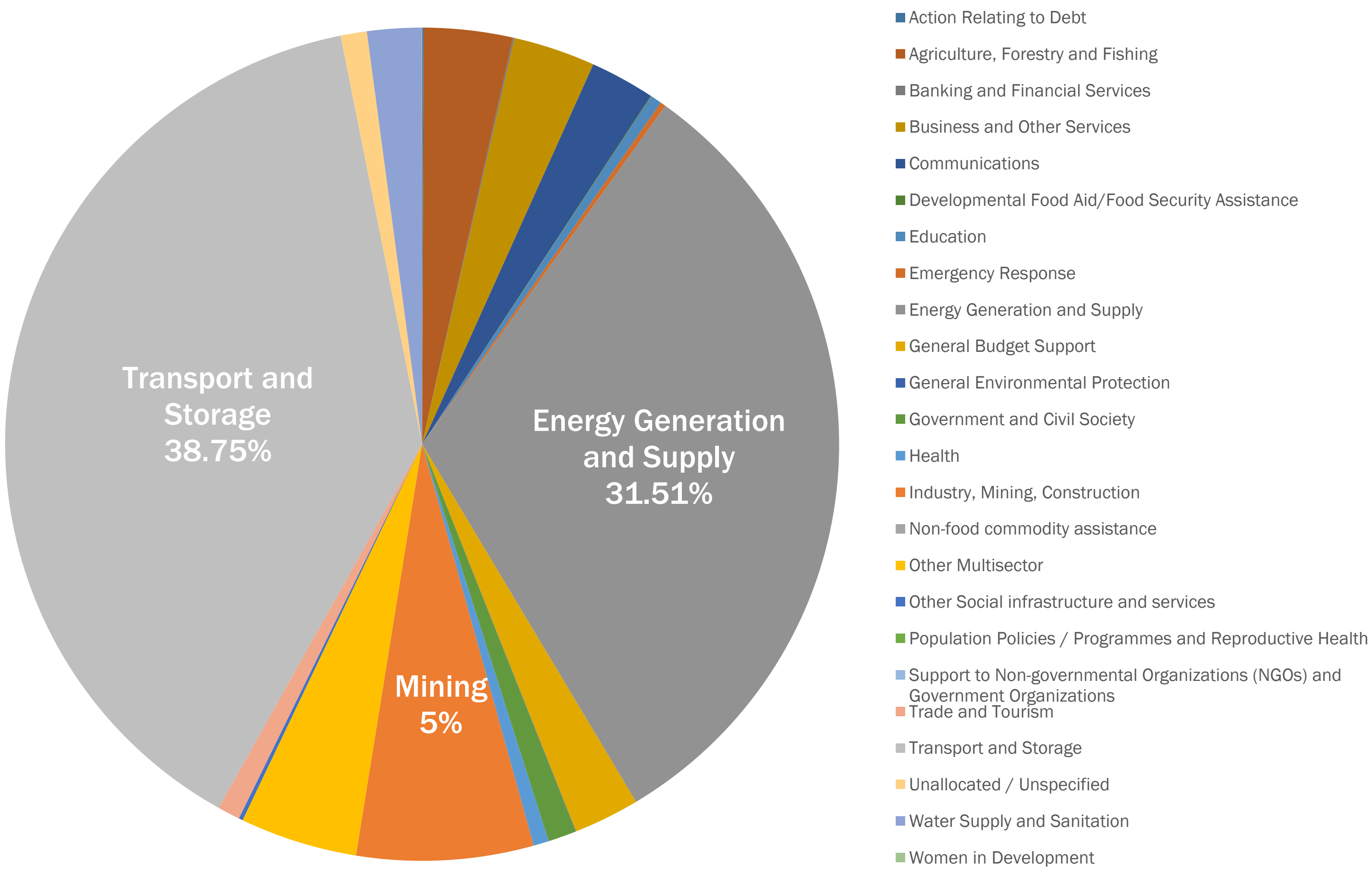
Source: AidData and World Governance Indicators

Figure 1: Chinese development finance: Total and to Belt and Road countries



Source: AidData

Figure 2: Chinese Development Finance, 2012-2014, by sector



Source: AidData