# Hidden Dragon? Chinese Influence at the World Bank

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Abstract:

In this paper, we consider an alternate explanation for China's continued interest in World Bank loans: borrower influence. As a bureaucracy and as a bank, the World Bank relies both on repayment of its outstanding loans and on a predictable pipeline of new lending. As a major client, China could exert informal influence by threatening to cancel projects (either ongoing or pipeline) and, in principle, could raise doubts about timely repayment of past loans. Informal influence might suit China better than formal influence (i.e., increased vote share) since key elements of the World Bank agenda—conditionality, governance, transparency, indigenous rights—sit poorly with China's own domestic record and non-interference approach to foreign policy. The paper examines how China has been treated by the World Bank and whether there is statistical evidence of China having informal influence over World Bank decisions.

## 1. Introduction

The Trump Administration's obsession with China as a geopolitical rival has focused attention on China's role in the World Bank. Answers to the question of why China continues to be a major World Bank borrower are not entirely convincing. From the World Bank side, the answer is pretty obvious: China is a profitable client. Why China is interested (given the bureaucratic hassles typically associated with World Bank lending procedures) is less obvious. The World Bank touts the high quality of its lending services and claims that China values this expertise (Bottelier 2006; World Bank 2007). The World Bank is undoubtedly a thought leader in many areas, but China is on a path to challenge the United States to become the World's most powerful economy, and it is doubtful that China would cede sufficient control to the World Bank for this argument to hold water. The World Bank's first attempt to reinvent itself as a "knowledge bank" (where knowledge services would be sold separately from loans, e.g., the World Bank acting as a development consultancy) went well—except that the institution soon realized that few of its clients would actually pay for its services (Kramarz and Momani 2013).[1] If countries with low institutional capacity will not pay for World Bank expertise, it is hard to see why a government with ample internal expertise would.

In this paper, we explore China's history as a World Bank borrower and consider an alternate explanation for China's continued interest in World Bank loans: borrower influence. As a bureaucracy and as a bank, the World Bank relies both on repayment of its outstanding loans and on a predictable pipeline of new lending—especially IBRD loans to middle income countries, profits from which cover World Bank operational expenses and subsidize concessional IDA

[1] These activities (Reimbursable Advisory Services) generated $56 million in FY2019 as compared to $4 billion in net interest revenue from IBRD loans and IDA credits (World Bank 2019A).

lending to low income countries. As a major client (see Figures 1 & 2), China could exert influence by threatening to cancel projects (either ongoing or pipeline) and, in principle, could raise doubts about timely repayment of past loans. Such informal influence might suit China better than formal influence (from increasing its donations to—and hence vote share in—the World Bank) since important elements of the World Bank agenda are both proscriptive and sit poorly with China's domestic record (good governance, transparency, and protection of indigenous peoples (Park 2007; Errico 2006)). If China substantially increased its formal power within the World Bank, it would face increased pressure from home and abroad to reform itself.

[Figures 1 & 2 here]

China is a founding member of the International Bank for Reconstruction and Development (IBRD, the original lending window of the World Bank) but received its first loan only in 1981. Through June 2019, the World Bank has supported 430 projects in China, with IBRD loans and IDA credits totaling $63.4 billion ($78.4 billion in constant 2010 USD). Chinese borrowing from the concessional IDA lending window ended June 1999, with IDA credits totaling $9.9 billion ($15 billion in constant 2010 USD). As Figure 2 illustrates, lending to China accounted for as much as 17% of IBRD lending (FY1996) and even in recent years has averaged 7 to 8 percent of IBRD lending. Since it started borrowing, China ranks second only to India in total borrowing, has been a top ten IBRD borrower almost every year, and has been the largest single borrower for eight years.[2]

[2] From 1961 to 1971, the World Bank made loans to Taiwan. Lending to China has been almost exclusively for investment projects; there have been only three development policy loans (one in 1987 and a pair in 2017) totaling $700 million. The precipitous drop in Chinese borrowing in FY2002—the only time in recent years that China has not made the top ten list—reflects China's reaction to the World Bank withdrawing from the China Western Poverty Reduction Project in response to a critical Inspection Panel report (Mallaby 2005; Wade 2009; Kim 2011). "Top ten" borrowers are also important because bond rating agencies consider the credit ratings of these countries when determining the World Bank's credit rating (see below). All figures based on authors' calculations using data from World Bank (2019B) on IBRD and IDA lending to specific countries.

During much of this period of intense borrowing from the World Bank, China has also increasingly played the role of donor and creditor to many other developing countries. Most striking has been the rapid expansion of China's long-standing role in development assistance. Dreher et al. (2017) estimate that China provided $354.4 billion in aid and non-concessional official financing between 2000 and 2014. Horn et al. (2019) estimate that foreign debt owed to China has averaged $137 billion from 2000 to 2017, rising from $825 million in 2000 to $404 billion in 2017; much of this is associated with China's Belt and Road Initiative (BRI). Over this same period, China's income per capita has risen from $1901 to $7308 (WDI 2020). China's foreign exchange reserves are reported at $3.12 trillion (Trading Economics 2020) and its commercial sovereign borrowing costs range from 35 to 70 basis points above the U.S. Treasury benchmark, depending on maturity (CNBC 2019). For comparison, the IBRD borrowing rate for China is 65 to 180 basis points above LIBOR, depending on maturity (World Bank 2020). LIBOR is currently about 40 basis points above the U.S. Treasury benchmark for one-year maturity. Thus, considering the costs of borrowing, delays associated with IBRD loans (Humphrey 2016), and China's ample resources, the financial advantages of World Bank borrowing for China are uncertain at best. In contrast, the financial advantages to the World Bank of lending to China are clear.

The next section reviews China's relationship with the World Bank, focusing in particular on the gains accruing to either side from continuing the lending relationship. Also in that section, we collect and summarize recent work on the various ways that China's rising influence in global governance can or cannot be detected. Section 3 presents the first part of our empirical analysis, which assesses China's experience as a World Bank borrower. We examine the extent to which the usual "hassles" of World Bank borrowing—cumbersome safeguard procedures, lengthy

project preparation, slow disbursement, and project performance audits—also apply to China. If China receives "royal" treatment by the World Bank, this might explain its continued interest in borrowing. Section 4 explores the alternate explanation for continued high levels of Chinese borrowing—borrower influence—via an empirical assessment of Chinese informal influence over various aspects of World Bank lending to other countries. In these cases, we also consider the alternate explanation of competitive pressure, i.e., that World Bank lending reacts to Chinese aid and other official finance (Hernandez 2017; Naím 2007). Section 5 concludes.

## 2. China and International Financial Institutions

In this section, we briefly review the evidence about why the World Bank continues to lend to China. We then turn to why China borrows and survey the existing scholarship on Chinese influence over World Bank decision-making. This scholarship is primarily based on case studies and analysis of descriptive statistics.

### *Why does the World Bank lend to China?*

Four main arguments have been put forward for why the World Bank continues to lend to China: revenue, relevance, regional poverty, and learning. As mentioned above, lending to China has been a profitable part of the World Bank's business for decades. The importance of China as a major borrower—supplying a steady stream of revenue to underwrite the World Bank's operational budget and concessional lending, and helping to maintain the market expectation of reliable loan repayment that is the foundation of the World Bank's stellar bond rating—is a frequent refrain in scholarly works and policy circles. When weighing the reasons for continued World Bank lending to large middle income countries (MICs) like China, Güven (2017B, 499) points to revenue:

> The centrality of large MICs [including China] to the Bank's bottom line cannot be overemphasised. With the IDA focused on concessional lending, it is up to the IBRD to retain the lucrative clients to generate revenue for the organization's sizeable administrative and research expenditure.

This point is highlighted in other scholarly work, such as Chin (2013) and Xu (2017). Güven (2017A, 1153) notes that even shifts in the borrowing patterns of China and other large MICS have had "profound effects on [the World Bank's] bottom line," underscoring just how important such lending is for the World Bank's business model.

Lending to China is important for maintaining the World Bank's bond rating. The World Bank finances its IBRD lending by floating bonds on international markets. Because of its financial structure, special status (together with the IMF) as most senior creditor, and track record, the World Bank has maintained a triple-A bond rating for 60 years and thus is able to borrow at very competitive rates.[3] It is this preferred access to international credit markets that allows the World Bank to relend to its IBRD clients at attractive rates, even after a mark-up. Reliable repayment from major IBRD borrowers like China is the linchpin of this business model. In a Devex interview, former World Bank country director for China Yukon Huang underscored this point: "You could say that the World Bank needs China more than China needs the World Bank…China is doing the World Bank a favor by borrowing, because people realize it's not going to default on those loans." (Igoe 2019)

The World Bank is also interested in retaining China to maintain the institution's relevance as China continues to grow and assume a more important role in the world. Güven (2017B, 499) points out that "maintaining a strong presence in systemically important countries sustains the

[3] Schlegl et al. (2019) confirm that the World Bank is a *de factor* senior creditor (as well as *de jura*). In June 2019, the World Bank issued $1.25 billion in 4 year bonds with a coupon rate of 1.875%

[World] Bank's privileged status as an international organization, justifying continued donor and political support for its operations." When asked in 2005 why the World Bank continues to lend to China, the World Bank's then-president Paul Wolfowitz retorted how could they not? (Chin 2013, 504).

As the World Bank has struggled to publicly justify its continued lending to China—in the face of China's growing economic resources, foreign aid and lending program, nascent space program, etc.—it has increasingly pointed to the still large number of poor people within China's borders (Chin 2013; Güven 2017B). Chin (2013, 504) again cites Wolfowitz's 2005 press conference where he stated, "how could the World Bank not be working with the most populous country in the world, and the country that still has the second-largest number of poor people in any country in the world?" This is an oft repeated theme in the World Bank's analytical work and public statements. However, a Center for Global Development study finds that only 58% of IBRD lending in China went to provinces with per capita incomes below the World Bank's "graduation discussion income threshold" (Morris and Portelance 2019).

A final justification for continued engagement in China is the World Bank learning from China. Echoing the World Bank's own claims (Bottelier 2006), Güven (2017A, 1164) notes that "disseminating policy lessons from high performers to other clients is often cited as an important motive for the organization to engage with MICs." Chin (2013) argues that World Bank involvement in China has changed from a traditional 'donor-recipient' relationship to one where World Bank staff learn from Chinese efforts to fight rural poverty or assist in integrating corporate social responsibility practices into new Chinese business with Africa.

Güven (2017A, 1153) succinctly sums up the institution's position:

> Maintaining an active lender–borrower relationship with systemically important economies also reinforces the IFIs' relevancy in the global economy. Any weakening of this operational relationship would undermine both the financial and the policy viability of the [World Bank].

The importance the World Bank places on lending to China was evident in 2014 when it raised the borrowing limit for China to $19 billion (Güven 2017A, 1161).

*Why does China borrow from the World Bank? What influence does China wield?*

We start with a review of the recent literature on the motivation behind and the implications of China's arrival on the geopolitical stage. We pay particular attention to work suggesting ways in which China influences existing multilateral institutions whose actions may have implications for China itself, but also for countries of particular strategic interest to China (e.g., because of geographic proximity or inclusion in the Belt-and-Road Initiative (BRI)).

Shullman (2019) emphasizes the importance of "internal drivers" that push China to increase its influence abroad. According to this telling, investments abroad that generate handsome returns are necessary to placate the population at home, which is becoming increasingly concerned about slowing economic growth. BRI projects' primary function, then, would be to purchase Chinese-produced steel and aluminum. The notion that at least some of the motives for pushing abroad are rising concerns at home is echoed by others (Tan 2017; Congressional Research Service 2019).[4] To enable continued investments of this kind, China goes to great lengths to create welcoming political climates in the recipient countries. Shullman (2019) states that China's approach "is still frequently corrosive of democratic institutions, increasing corruption and undermining financial and political independence." The Chinese Communist Party (CCP) provides

[4] This parallels some interpretations of the Marshall Plan as a stimulus for the U.S. economy (Browne 2006, 101).

training and technology helping like-minded governments control the media in an effort to protect and enhance the Chinese image, a process dubbed "exporting authoritarianism." (Shullman 2019)

Given these direct efforts to influence politics and public discourse in countries targeted by Chinese investment, are there corresponding attempts, possibly more veiled and indirect, to influence World Bank policy towards those countries? In a speech given in 2018, Chinese President Xi Jinping called for his nation to "lead the reform of the global governance system"—of which the World Bank is certainly an important part—"with the concept of fairness and justice" (Xinhua 2018).

Just what does this mean? Hart and Johnson (2019) tackle this question by focusing on Chinese leaders' internal domestic statements and how they are interpreted by Chinese foreign policy scholars. Internal statements may be especially revealing because they address an audience of officials in the CCP and thus have to be clear about the true intentions of Chinese leadership (mainly President Xi). According to Hart and Johnson, Chinese-led reform of the global governance system will be guided by the view that Western nations' overt commitment to freedom, democracy and human rights is a self-serving façade and that such insistence on "universal values" is responsible for breaking apart countries such as Syria, Libya and Iraq. When public statements by Xi mention China striving for "diversity of human civilizations," for example, this is code for a global governance system that accepts authoritarian principles and countries alongside liberal, democratic ones.

Regarding China's operations within existing international organizations (IOs), there is mixed evidence on whether China respects or undermines these IOs. Xu (2017, 252) claims that "China has increasingly gained senior-level positions in the World Bank Group as a means of building direct policy influence." Hart and Johnson (2019) likewise maintain that Chinese

nationals occupying leadership positions in international organizations frequently receive instructions by and report back to the CCP, thereby violating the Standards of Conduct for the International Civil Service.[5] Matura (2019) investigates whether strong political relations and increasing economic dependency on China led 16 Central and Eastern European (CEE) countries to change their voting behavior at meetings of the European Union. Despite a Western diplomat's claims to the contrary, Matura finds no empirical evidence linking political relations with China to CEE countries' voting behavior on the imposition of anti-dumping measures against China at the Council of the European Union.

These divergent patterns might be explained by Harpaz (2016), who argues that China has largely conformed to international (Western) norms in the spheres of trade and investment, but not in development aid. Chin (2013, 586) posits that China has deliberately elected to stay in the recipient country category while also expanding its development aid to other countries to "continue self-identifying, politically, with 'the South'." There is also evidence of Chinese aid resulting in competitive pressure on established donors; Hernandez (2017) finds fewer conditions on World Bank policy loans to African countries that receive more Chinese assistance. Güven (2017A) also identifies large sources of new development finance—e.g., China and the Asian Infrastructure Investment Bank (AIIB)—as raising the specter of "competitive substitution" and hence placing pressure on the World Bank.

Within the World Bank, China has taken some deliberate actions to strengthen its influence. Analyzing the political debate in China around a recent IDA replenishment (IDA17), Xu (2017, 245-246) recounts Chinese desire for more "voice" with the institution and that the "Chinese Executive Director urgently felt that inaction [on IDA17] would not be a viable option going

[5] United Nations, "Standards of conduct for the international civil service," available at http://www.un.org/en/ethics/pdf/StandConIntCivSE.pdf

forward, because a business-as-usual scenario would see China's influence being further marginalized should it be neither a big borrower nor a big donor." Xu also makes the point that "big borrowers had some leverage over how to run the [World] Bank" due to the World Bank's business model.

Chin (2012) describes the evolving World Bank-China relationship as "two-way socialization," citing a 2007 MOU between the Export-Import Bank of China and the World Bank that allowed China to play the role of co-donor rather than the usual "World Bank as leader, bilateral donors as followers" arrangement.

One way the World Bank could woo its biggest clients is by catering to their borrowing needs to a greater degree than it does with other countries. Güven (2017B) analyzes the composition of World Bank lending, comparing FY2002-2008 with FY2009-2015 and the largest borrowers (Argentina, Brazil, China, India, Indonesia, Mexico and Turkey) against smaller borrowers, i.e., a difference-in-difference approach. From one period to the next, the composition of World Bank lending has shifted from "policy-heavy governance and institutional reforms" to infrastructure lending, a change that makes World Bank borrowing "less onerous and more rewarding"; this shift has been more marked for the largest borrowers than for others. Güven interprets this as World Bank lending to its largest borrowers evolving "to alleviate the policy burden…while accommodating countries' strategic preferences." (Güven 2017B, 497) Mallaby (2005, 337) provides useful anecdotal evidence of this special treatment for the case of large dams in the Wolfensohn era:

> 'Wolfensohn came to the Bank and within months triumphantly announced that the Bank would reduce its power lending from 15 to 25 percent of the total commitment

> to 5 percent,' many staff stated. 'No one went against him, and lending declined quickly everywhere except in China.'

Lim's (2005) reflections on his career, including a long stint in China, confirm that China was always firmly in the driver's seat.

An interesting example of the World Bank reversing policy due to China relates to the Non-Concessional Borrowing Policy (NCBP) of 2006 (Xu 2017, 2 234-235). In response to a rapid accumulation of debt in many poor countries—often driven by Chinese infrastructure projects and the associated lending and strongly condemned by the traditional donors involved in the Multilateral Debt Relief Initiative (MDRI)—the World Bank and IMF introduced a Debt Sustainability Framework, the rating from which was included in the IDA allocation formula. The goal was to use the threat of less IDA money to wean poor countries off Chinese loans. Yet given the sums involved, the World Bank was outmatched and NCBP restrictions had little impact on borrowing from China. When China achieved IDA donor status in 2010, the policy was substantially watered down.[8]

Conflict between China and the donor countries that largely control the World Bank also emerged during the "voice and vote" governance reforms following the global financial crisis. Kaya (2015) analyzes changes in World Bank voting shares in 2008 and 2010, focusing on positions taken by rising powers (including China) versus positions taken by rich countries. Kaya identifies clearly divergent views regarding IBRD lending even at this time. Rising powers supported high levels of IBRD lending to middle income countries (themselves included) and

[8] Around the same time, Wolfowitz began a campaign against corruption that was widely viewed with suspicion. In addition to resistance from European countries, China and other borrowers pushed back against this initiative by threatening to suspend future borrowing (Weaver 2008; Xu 2017). According to Behar (2012), Wolfowitz's successor Zoellick confirmed that this push back halted the policy: "'There are several countries, including those with very big geopolitical influence and a strong voice on the bank board, where the bank had to find a way to deal with it,' he says."

lower IBRD interest rates. Major World Bank donor countries, in contrast, questioned the merits of such loans and orchestrated an IBRD loan interest rate increase in 2010. In addition, rising powers argued that larger borrowers (like China) should have more say in IDA to reflect the role that profits from lending IBRD funds to these countries play in financing IDA's much more concessional loans. Other points of conflict included: 1) whether to measure GDP at market exchange rates or via purchasing power parity when assessing economic size for the purposes of assigning IBRD vote shares (the latter favoring and supported by developed countries); 2) whether to use current or cumulative IDA contributions in assessing vote shares; and 3) the role of IDA Deputies versus World Bank Executive Directors in IDA decisions. Along with other rising powers, China attempted to exert some influence over World Bank decision-making. Interestingly rather than maximizing its formal power, China actually ceded some of its allotted IBRD vote increase to other developing countries (Vestergaard and Wade 2013).

In sum, China is blazing a new trail on the global stage of foreign aid and development assistance. Its size and sustained high economic growth over the last two decades are unprecedented and will ultimately lead to China being the world's largest economy. This fact alone has led to calls for the World Bank to stop lending to China. However, lending continues, at least in part because the World Bank could not easily replace the missing revenue in its absence. China, on the other hand, has been reported to gain influence from the continued engagement (as well as the World Bank's dependence). Anecdotal evidence is provided by reports of, for example, more senior level positions within the organization filled by Chinese nationals, influence by major borrowing countries (read China) on the application of anti-dumping or anti-corruption efforts as it relates to their own projects, and careful revising of the language in official World Bank reports

regarding diplomatically sensitive issues such as the status of Taiwan (see also the discussion in the concluding section).

In the next sections, we move beyond anecdotes and conduct a number of empirical analyses with the goal to shed more light on the relationship between China and the World Bank.

## 3. Empirical Analysis of Chinese Borrowing in the World Bank

To better understand the demand side of China's continued borrowing from the World Bank, we look first at how the World Bank treats China—in essence, looking at the direct benefits of borrowing. We postpone to the next section our investigation of whether China has been able to leverage its status as an important source of World Bank income to have a degree of informal influence within the institution.

We start with the most basic issue, China's level of access to World Bank funds. Table 1 examines the allocation of World Bank commitments (loans plus credits plus grants) across borrowing countries. Using publicly available data, two key factors are the country's size and its level of development. We measure the former with population and proxy for the latter with GDP per capita. We also include the inflation rate as a rough measure of policy quality. [10] The regression estimated includes a China indicator variable; ceteris paribus, the coefficients on this term indicates the degree to which China historically has been treated differently than other countries. The dependent variable is total World Bank funding measure in millions of constant 2010 dollars; the sample includes 150 countries that have borrowed from the World Bank and covers the years 1981 (when mainland China began borrowing) to 2018. The coefficient can be

[10] The Country Policy and Institutional Assessment (CPIA) index is an important third factor but is not publicly available across a wide enough sample to be useful for our purposes.

interpreted directly: controlling for size, level of development, and policy quality, China has received about $2.4 billion less per year than expected. Figure 3 shows the result graphically. The figure depicts the average residual by country from a regression of World Bank lending to individual countries on population, GDP per capita, and inflation (the same regression as in Table 1 but without the China dummy). The figure illustrates that no other country has been "short changed" to the extent that China has. These results simply quantify the obvious: World Bank lending to China historically has not been proportional to its size and need.

[Table 1 & Figure 3 here]

As important as the level of funding is, the benefits of borrowing from the World Bank depend also on the ease, speed, and effectiveness of doing so—how onerous the bureaucratic hoops to borrow are, how quickly the borrowing country's loan is approved, how quickly funds are disbursed, and how successful the funded project is in reaching its objectives. The borrowing government may be able to influence some of these factors (for example, how quickly and successfully the project progresses once the loan is approved) but has substantially less influence over other factors (namely the level of bureaucratic requirements on the World Bank side and how quickly a project is approved).[11] To assess the relative benefits to China, we explore whether China's experience through the project cycle is different from that of other World Bank clients.

*The Hassle Factor: Environmental and Social Safeguards*

[11] Given the emphasis on borrower ownership in World Bank documents and given that borrowers are formally in charge of project preparation (prior to project appraisal), the assertion that borrowers have substantially less influence over the speed of project preparation may seem ill-founded. However, Kilby (2013) finds that country characteristics (such as level of development and governance and institutional development indicators) play a very small role in determining the duration of project preparation. In contrast, project and funding characteristics—plus geopolitical factors—play a large role.

Since fiscal year 1990, every proposed World Bank project has been assessed for environmental and social risk (Buntaine 2016; Gallagher and Kilby 2019). Projects are assigned to one of four main environmental and social safeguard (ESS) categories: A (high risk); B (medium risk); F (involving on-lending through financial intermediaries so that there may be risk); and low risk. Projects in the high-risk category face elevated bureaucratic scrutiny and a number of time-consuming and costly additional steps (full environmental impact assessment, periods of public comment, etc.). Projects deemed to have medium risk (Category B), also face additional procedural requirements but these tend to be less extensive, less costly, and less burdensome (e.g., a partial assessment or even only a checklist). Approximately 60 percent of World Bank investment projects have some form of ESS designation; it is rare for adjustment lending, however.[12] Over time, many World Bank Operations staff and their counterparts in borrowing country governments have come to dread the delays and extra administrative work that accompany ESS designation, sometimes dubbed the 'hassle factor' of borrowing from the World Bank (Humphrey 2016).

To explore the degree to which the World Bank hassle factor impacts China, we follow Gallagher and Kilby (2019) to estimate how projects are selected for ESS. The sample covers all investment projects approved between FY 1990 (the start of the safeguards regime) and FY 2018; we exclude adjustment loans, both because they are rarely subject to ESS and because China has received very few of these. The unit of observation is the investment project. See Appendix Table A2 for descriptive statistics.

Table 2 reports marginal effects (evaluated at the sample mean) from a probit estimation. The z-statistics reported in parentheses are based on country-clustered standard errors. All

[12] During the time period covered, 52.7% of all World Bank-funded projects had ESS (53.8% by dollar value). For investment projects, the figures are 60.6% by count and 76% by dollar value.

specifications include unreported region, sector and financial instrument type dummy variables; we also include dummies for approval fiscal year to allow for bank-wide changes in the application of ESS.

[Table 2 here]

Column (1) reports marginal effects from a selection equation for projects with any form of ESS. The marginal effect for China indicates a 13% higher likelihood of ESS designation for projects in China than in other countries, ceteris paribus, and this effect is statistically significant. To put this in context, consider the magnitude of the effects of other statistically significant factors. Supplemental loans (which add funds to existing projects) are nine percent more likely to have some form of ESS than regular project loans, ceteris paribus.[13] Larger projects are also more likely to have safeguards; a one percent increase in loan size is associated with a 0.0653% increase in the likelihood of safeguards, ceteris paribus. Equivalently, a doubling of loan size is associate with a 4.53% increase in the likelihood of safeguards, ceteris paribus. While countries hold an elected seat on the United Nations Security Council (UNSC), their projects are 5.84% less likely to be assigned ESS.

Column (2) explores some of the drivers of this "China effect" by interacting project characteristics with the China dummy and thus allow project characteristics to play a different role in China than elsewhere. The marginal effect reported for China now holds Supplement and Loan Amount at zero and the marginal effects reported for Supplement and Loan Amount hold China at zero. The marginal effects reported for the interaction terms are the difference between the marginal effect with China=0 and with China=1 (reporting z-statistics for that differential). The marginal effect reported for China is now not significantly different than zero (statistically or

[13] Supplemental loans have become increasingly common since 2007. For details, see Kersting and Kilby (2019).

economically), indicating that small, regular projects have essentially the same odds of ESS designation in China or elsewhere. The first interaction term (Supplement × China) indicates that Chinese supplemental loans are 11.1% more likely to have safeguards than supplemental loans to other countries. The second interaction term (Loan Amount × China) indicates that the effect of loan size is 32% larger in China than in other countries.[14]

The remaining columns of Table 2 break these results down by type of safeguard. Columns (3) and (4) examine the probability of Category A safeguards versus no safeguards and thus drops projects in Categories B or F. Columns (5) and (6) examine the probability of Category B safeguards versus no safeguards and thus drops projects in Categories A or F. Because China has few projects in Category F, we do not repeat this procedure with that category. Results are similar to the overall safeguard results, with a few exceptions. When considering the probability of Category A safeguards versus no safeguards, the marginal effect of a supplemental loan is small—except for projects in China; the odds of Category A safeguards increase by only 1.4% for supplemental loans outside of China (and the coefficient is statistically insignificant) but by 1.4% plus 35% for Chinese supplemental loans. The difference is a little less dramatic for Category B safeguards (9% versus 9% plus 14%) but still notable. For Category A safeguards (but not for Category B), the impact of loan amount on the odds of safeguards is also much larger in China, roughly triple the effect for Chinese projects as compared to non-Chinese projects, ceteris paribus.

In sum, it appears that, in terms of ESS, China is held to a higher standard than the typical World Bank borrower. Characteristics that can trigger ESS for other countries are more likely to

[14] This follows from comparing the differential marginal effect to the baseline effect, i.e., 0.0203/0.0633 = 0.32. Also, recall that our specification controls for sector so this result is not due to accidentally conflating loan amount with the type of project funded.

do so if the borrower is China. Rather than finding that the administrative hassle of borrowing from the World Bank is lower for China than for other countries, we find the opposite.

*Approval*

A second factor to consider is how quickly a loan from the World Bank is approved. The time from when an investment opportunity is identified to when the corresponding loan is approved can be lengthy at the World Bank and is one of the factors borrowers cite when pondering the value of borrowing from the World Bank (versus commercial sources) (Humphrey 2016). In this section, we explore the determinants of preparation duration, the time from project identification to loan approval.

The central empirical problem in this exercise is the lack of a project identification date. Following Kilby (2013), we exploit instead World Bank project identification numbers. Much like lawyers, World Bank staff track their "billable hours," indicating to which account their time (and any other related expenses, such as external consultants, travel, etc.) is billed. Project identification numbers are used for this purpose and so must be generated when project preparation activities begin. Starting in 1994, the World Bank centralized the process generating project identification numbers so that they are issued sequentially and hence provide a noisy measure of the date on which project preparation began. Kilby (2013) maps this data generating process to a stochastic frontier model of a cost function, which uses the project identification number and the loan approval date to estimate preparation duration and, simultaneously, how country and project characteristics impact that duration.

Table 3 presents results from this estimation; for descriptive statistics, see Appendix Table A3. The sample runs from 1994 to 2018 and again excludes adjustment loans, for a total of 7711 observations (i.e., projects). Estimation is via maximum likelihood using an exponential

distribution as the one-sided stochastic term that describes how project and country characteristics impact preparation duration. The table reports coefficient estimates (and associated z-statistics) from the estimated model; we use the model in simulation exercises to translate those results to differences in preparation duration in terms of days. All specifications include unreported region, sector and financial instrument dummies.

[Table 3 here]

Column (1) of Table 3 provides the baseline specification without interaction terms. China enters with a positive and significant coefficient, indicating longer preparation duration for China than for other countries, ceteris paribus. Evaluated with other variables held at their mean values, the predicted preparation duration for China is 421 days and for other countries 355 days, a difference of 66 days. Thus, preparation is typically two months slower for Chinese projects, ceteris paribus. Column (1) also shows that supplemental loans reach approval much faster than regular projects (trimming an estimated 222 days or 7 and half months off the preparation time), that larger loans take longer to prepare, that safeguards add 123 days (4 months) to preparation time, and that project preparation times are shorter for countries that vote in line with the United States in the United Nations General Assembly (UNGA).[15]

Column (2) interacts the China dummy with each of these variables to see if we can learn more about what delays Chinese projects. The China dummy is no longer significant on its own and the only significant interaction term is for supplemental loans. While the estimated coefficient for supplemental loans outside of China is negative (shorter preparation times), the differential effect is positive and of a similar magnitude. An *F*-test of the hypothesis that the two coefficients sum to zero fails to reject the null ($p$=0.4187). The take-away is that while supplemental loans

[15] IDA-funded projects are also quicker and, as one would expect, there are substantial differences across sectors and loan types (e.g., shorter preparation times for Emergency Relief Loans and Technical Assistance Loans).

generally receive expedited approval, the same is not true for supplemental loans to projects in China and that this lack of special treatment for supplemental loans is responsible for longer preparation times in China in aggregate. Conversely, the impact of safeguards, loan size, and geopolitics on preparation times is not different for Chinese projects. These results hold as well in Columns (3) and (4) where we allow for differences between safeguard categories.

As with our findings in the previous tables, China does receive special treatment from the World Bank—but not the positive sort. When other countries receive supplemental loans for existing projects, preparation is expedited by seven and a half months in the typical case. When China receives a supplemental loan for an existing project, preparation is not expedited; China has to wait for its money.

*Disbursement of funds*

Once a World Bank loan is approved, how quickly do the funds disburse? For most investment projects, World Bank loans disburse gradually over the course of several years as expenses are incurred. Disbursement delays can occur for one of two reasons. The project may fall behind schedule in terms of implementation; this is often due to poor management on the part of the implementing agency in the borrowing government or delays in delivering counterpart funding (i.e., the portion of the project budget that comes from the government). Alternatively, disbursement may be delayed because of questions raised on the World Bank side, for example by the team task leader in charge of supervising the project. Supervision missions from the World Bank to the country may uncover problems that need to be addressed, requests for reimbursement may not conform to established World Bank procedures, or expenditures may appear inconsistent with the project plan.

Following Kersting and Kilby (2016), we measure disbursement speed by the number of months since loan approval to meet a given threshold (25% disbursed, 50% disbursed, or 75% disbursed). In this setting, fewer months to reach a threshold implies faster disbursement so a negative coefficient indicates that an increase in the variable is associated with faster disbursement and a positive coefficient indicates that an increase in the variable is associated with slower disbursement. The unit of observation is the individual project; we again exclude adjustment projects because they follow very different disbursement patterns (which have varied over time) and because adjustment lending is rare for China. To avoid variation in sample size that would make comparison across the different dependent variables more difficult, we include only projects approved after fiscal year 1989 that have reached the 75% disbursed threshold by the end of FY2018.[16] For descriptive statistics, see Appendix Table A4.

Columns (1) to (3) of Table 4 focus on how disbursement speed differs in China as compared to other countries, ceteris paribus. The specifications include a range of control variables to account for project characteristics (allowing for differences in the composition of China's World Bank loan portfolio relative to other countries) and select country characteristics. The estimation procedure uses a country-clustered variance-covariance matrix (i.e., reports statistics based on country-clustered standard errors). We include a dummy for China to compare disbursement speed for China to other countries.

[Table 4 here]

As expected, projects with safeguards disburse somewhat more slowly than those without safeguards, with 1.8 additional months to reach 25% disburse, 3.3 additional months to reach 50%

[16] To mitigate the sample selection issues this may introduce—more recent, slow disbursement projects may be omitted from the sample—we include the project approval date (Approval Period, which is measured in months to match the units of the dependent variable). Consistent with this logic, the estimated coefficient is negative.

disbursed, and 5.5 months to reach 75% disbursed.[17] Larger loans disburse more quickly, an effect that is constant over time suggesting disbursement commences more quickly after loan approval (e.g., a shorter delay between loan approval and the start of disbursement (loan effectiveness)). Higher GDP is associated with somewhat slower disbursement; IDA-funded projects do not disburse at a significantly different rate if we control for GDP but do disburse significantly more quickly if we do not.

The key takeaway from Columns (1) to (3), however, is that projects disburse substantially faster in China than in the typical country, ceteris paribus. The time to reach 25% disbursed is 13 months less in China, to reach 50% disbursed 19 months less, and to reach 75% disbursed 21 months less.

The specifications in the rest of Table 4 interact two project characteristics that influence disbursement speed—ESS status and loan amount—with a China dummy to determine if these characteristics have a different impact for projects in China.[18] Columns (4) to (6) use the overall safeguard variable while Columns (7) to (9) differentiate between safeguard categories. These interactions reveal some interesting patterns for Chinese projects. Safeguards have less of a negative impact on disbursement speed in China when we look at the 75% threshold (Column 6). For Category A safeguards, the disbursement delay is smaller at all threshold levels examined

[17] These figures are aggregate, i.e., the 3 additional months to reach 50% disbursed is not in addition to the 1.5 months. Looking across the table, the figures are relatively linear; the additional time to reach 50% is generally roughly twice that to reach 25% and the additional time to reach 75% is roughly three times that to reach 25%. We do not use 100% disbursed as a threshold because many projects do not reach this level in the data, either because part of the loan is cancelled (e.g., if components of the original plan are dropped) or because of exchange rate fluctuations. The latter case is a reporting fluke. World Bank loans often include currencies other than US dollars but the World Bank data on commitments and disbursements report in dollars using the prevailing exchange rate at the time of the transaction. Thus, project disbursement can appear to exceed 100% (when the value of the dollar falls) or fall short of 100% (when the value of the dollar rises) when disbursement was actually 100% in the currency used for the loan.

[18] We collect monthly project disbursement data via the World Bank Projects Database API. This database does not list disbursement data under project ids for supplemental loans so these are excluded from our sample and no "supplement" dummy variable can be included in the specifications.

(Column 7). The pattern of faster disbursement for China is repeated when considering the impact of loan amount. As noted above, in general larger projects disburse more quickly with the effect roughly constant at just under two months across the three thresholds we consider. For China, disbursement accelerates somewhat more with increasing loan size, the effect roughly doubling in size for specifications with the 25% and 50% thresholds. Again, this effect is relative constant across the 25% and 50% thresholds, suggesting that it reflects a shorter delay between loan approval and loan effectiveness. Finally, once we account for the effects of loan size, the coefficient estimate on the China dummy is substantially reduced in size and, for the lower disbursement thresholds, is no longer statistically significant. Thus, in large part, the faster disbursement we see in China is driven by faster disbursement of large loans.

*Project Outcome Ratings*

We now turn to project rating, the last stage of the project cycle. At the end of the implementation phase of each World Bank-funded project, the World Bank operational staff in charge of supervising the project write an implementation completion report (ICR), which includes an overall rating of the project. The most widely used version of the rating is a binary indicator ("Satisfactory" versus "Unsatisfactory"). China has a reputation for well-run projects and this holds up in the aggregate rating scores.

The project performance equation estimated below goes beyond this simple observation to allow ceteris paribus comparisons and to explore whether the links between project characteristics and outcome ratings differ systematically for Chinese projects. Since the dependent variable is binary, estimation is via probit; the table follows the same approach as in Table 2 above (reporting marginal effects at the sample mean and differences between marginal effects for interaction terms). The unit of observation is the project but we restrict the sample in a couple of ways. First,

the sample starts with projects approved in FY1990 to allow inclusion of safeguard status. The sample ends with projects evaluated in FY2014, following Gallagher and Kilby (2019), who show that treatment of safeguards in project evaluations changed after this point. We will, however, include discussion of results for the sample that includes projects evaluated up to FY2018. We again exclude adjustment projects (because there are very few for China) and supplemental loans (as ICRs are written for the overall project, not for supplemental loans that added funding). Finally, because there are very few Chinese projects with safeguard category F, we drop all safeguard category F projects from the sample in specifications that differentiate between categories (now just between A and B). For descriptive statistics, see Appendix Table A5.

In Column (1) of Table 5, the marginal effect for China is consistent with the reputation that "things work in China." The probability of a satisfactory project is 13.7 percentage points higher in China than elsewhere, ceteris paribus; this result holds across all specifications we estimate. Projects with safeguards have a lower probability of satisfactory ratings, 4.4% lower ceteris paribus. Loan amount is not a significant factor, though the point estimate is negative (consistent with interpretations that view loan amount as a proxy for project complexity). The effect of geopolitics is evinced by a positive and significant effect of UNSC elected membership; for projects with an ICR rating in the same year that the borrowing country holds an elected seat on the UNSC the odds of a satisfactory rating increase by 8 percentage points. Control of corruption has a positive and significant marginal effect while GDP enters with a negative and significant marginal effect, ceteris paribus. The effect of GDP may seem counterintuitive but vanishes if we do not control for the level of corruption. Finally, even controlling for China, larger countries have a better track record of project success.

[Table 5 here]

Including interactions between China and both safeguards and loan amount finds no significant differential effect for China when treating all categories of safeguards the same. However, if we differentiate between Category A and Category B safeguards, differences are evident. While in other countries Category A safeguards are associated with a 12.8 percent decrease in the probability of a satisfactory rating, in China there is no apparent performance penalty for Category A projects. Conversely for category B projects, the performance penalty is larger for China than elsewhere. Finally, project performance declines slightly (but statistically significantly) with increased project size in China but not elsewhere. This result, however, holds only in the smaller sample used in Columns (3) and (4), i.e., only if we exclude category F projects. That the most risky projects in China perform as well as other projects (ceteris paribus) but elsewhere in the world perform much worse is either a testament to China's skills in successfully avoiding environmental damage and protecting indigenous minority rights or an area where the World Bank chooses not to challenge China. It is worth noting that a track record of failed projects would make it more difficult to continue a high lending volume (Buntaine 2016).

*Discussion*

In our first attempt to answer the question why China continues to borrow from the World Bank we investigated whether China has received "special treatment" from this lender. Specifically, we analyzed total loan amounts, hassle factors (environmental safeguards), loan preparation speed, loan disbursement speed, and project performance. For each of these factors we conduct a full statistical analysis of its determinants and add coefficients that estimate direct as well as differential effects caused solely by the client country in question being China.

The evidence is mixed. Beginning with findings of negative special treatment, China receives less funding from the World Bank than other countries, controlling for its need (proxied

by population and GDP per capita). While World Bank management usually approves supplemental loans faster than usual ones, this is not true for loans to China. In addition, projects in China are more likely to receive an environmental safeguard category A (high risk) classification, which on average causes slower disbursement and fewer satisfactory ratings. However, possibly representing positive special treatment, these disadvantages for such-classified projects do not materialize for China, leading to the result that overall, projects disburse substantially faster in China than in the typical country, ceteris paribus. Summarizing, the emerging picture is complex. The environmental safeguard findings can be reconciled with a pattern where such classifications are motivated by considerations unrelated to the actual project (for example to appease internal demand that China be treated rigorously), as this would also help to explain the lack of a performance penalty related to Category A projects in China.

Our investigation thus far does not suggest that China is benefiting from treatment at the hands of the World Bank generous enough to fully explain the interest in continued engagement. For that reason, we next turn to another aspect of influence within a multilateral institution: China may not only want to bring about desirable outcomes for China, but also for countries in its sphere of influence.

## 4. Assessing Chinese Informal Influence in the World Bank

Scholars have explored many avenues U.S. of influence in the World Bank. These include the level of conditionality (Clark and Dolan 2019; Kilby 2009), the allocation of funds (Andersen et al. 2006; Fleck and Kilby 2006), and various aspects of the project cycle (Kilby 2013; Kersting and Kilby 2016). In this section, we reexamine a number of these avenues to see if there is evidence of Chinese influence.

First we estimate the determinants of the number of conditions (prior actions) in World Bank adjustment loans, paying special attention to the role played by economic ties to China. Alongside major donors that influence World Bank decisions, China's preference may also matter, given its importance as borrower and rising global economic power. Our analysis is at the project level and is limited to development policy loans approved after the year 2004 (up through 2018) in order to focus on the World Bank's shift to development policy lending and the time period during which China has come into its own. Economic ties and general economic importance of the recipient countries are proxied by data on trade (imports plus exports) as well as foreign direct investment (inward). In both cases, we include measures for ties with the entire world, the U.S., and China. Finally, we control for macroeconomic and geopolitical conditions, approval year and the sector of the specific loan. See Appendix Table A6 for descriptive statistics.

Table 6 displays results using the log of the number of prior actions as the dependent variable. Data coverage for FDI flows is less complete than for trade, explaining the drop in observations going from column (1) to column (2) (which adds FDI variables to the trade variables) as well as from (3) to (4) (the most complete specification). Generally, larger development policy loans come with a larger number of prior actions, as do loans that go to countries with higher GDP. In terms of the impact of economic proximity to the U.S. and China and general economic importance, the following picture emerges: First and foremost, countries that are more integrated in the world economy—as measured by aggregate trade—receive fewer conditions. The point estimate suggests that a 10% increase in global trade is associated with a 1% decrease in the number of conditions. Regarding economic ties to the U.S., there is weak evidence of favoritism in that FDI inflows from the U.S. are associated with slightly fewer conditions on adjustment loans. The corresponding coefficient is statistically significant at the 10% level in column (2), but loses

significance once we also control for general geopolitical factors such as UN voting alignment in column (4). Contrast, Chinese economic interests are associated with more prior actions: With the exception of column (3), either trade with China or investment flows from China have a statistically significant, positive association with the number of prior actions. In terms of magnitude, the effects are modest: A doubling of the amount of trade with China is associated with about a 3.5% increase in the number of conditions, ceteris paribus.[19]

[Table 6 here]

Another measure of economic ties is a country's level of indebtedness to China. For our next analysis, we employ a new dataset collected by Horn et al. (2019) that aims to address the fact that a large part of Chinese lending goes unreported to the international institutions that regularly publish data on cross-border capital flow statistics (such as the IMF, BIS and the World Bank). Horn et al. find that about half of China's overseas loans are "hidden" in that sense. They merge a number of existing datasets, with the main source for modern Chinese loan data being AidData's Chinese Official Finance database (Dreher et al. 2017). Importantly for our purposes, data coverage extends through 2017 and therefore includes recent years that have seen sizable increases in Chinese cross-border lending (see also Figure 1 in Horn et al. 2019).[20]

We estimate a simple allocation equation at the country-year level, controlling for macroeconomic factors such as GDP, population and inflation, as well as year and region dummies. The sample is limited to countries eligible to borrow from the World Bank. Debt variables are introduced in binary form (to address both a number of zeros and a long right tail):

[19] Results are similar with a count dependent variable (no log) in an ordinary least squares regression and in a negative binomial regression. The notable differences from Table 6 are that Trade with China is significant only in the first column (marginally) and UNSC membership is significant in column (3), the specification without FDI.

[20] Interestingly, neither Chinese debt nor total external debt are significant factors in the number of prior actions for development policy finance, ceteris paribus.

High China Debt takes a value of one if the recipient country has debt to China (as reported by Horn et al.) of one percent or more of its GDP.[21] High External Debt takes a value of one if the recipient country has external debt (as reported in the World Development Indicators) equal or greater than 40 percent of GNI.

Column (1) of Table 7 shows the results for the linear specification (IBRD plus IDA loan commitments in constant 2010 USD); Column (2) reports the results of a log specification. The point estimates indicate fewer funds committed to countries that are highly indebted, both overall and to China; in the linear specification, both coefficients are statistically significant the difference between them is not. All other things equal, a high debt burden to China corresponds to $128 Million less in World Bank commitments. Columns (3) through (6) show the results when we differentiate by funding source (IBRD versus IDA; we also restrict the estimation sample to countries eligible for the respective funding source). Here we see a marked difference: Column (3) shows that the World Bank commits significantly fewer IBRD funds to those countries that borrow heavily from China, whereas the effect of external debt in general is smaller and statistically insignificant. The picture is reversed when we examine IDA funds in column (5): having high external debt indicates lower commitments whereas high level of indebtedness to China has no effect on IDA commitments from the World Bank.[22]

[Table 7 here]

These results could be explained by supply-side as well as demand-side factors. One possibility is that the World Bank reacts to recipient countries being in the Chinese sphere of

[21] This creates two roughly equal-sized bins. Since we use this measure in several different samples there is no unique cut-off value corresponding to, for example, the median. Results are robust to other cut-off levels.

[22] Results hold at the 90% confidence level with country fixed effects. We find no effect for Chinese trade or FDI, ceteris paribus; higher world trade is associated with larger loans and both higher overall FDI and higher U.S. FDI are associated with larger loans. The latter result suggests a bias in favor of U.S. partners as it indicates a stronger link for U.S. FDI than for FDI in general.

influence (proxied here by heavy borrowing) by extending less business to them, perhaps driven by informally articulated foreign policy preferences by the United States. However, that form of manipulation does not occur with IDA funding, perhaps due to the oft cited allocation formula that is thought to limit the extent of non-economic factors driving IDA fund allocation. Alternatively, these results may reflect a simple donor substitution story from the recipient country's perspective: High debt to China may indicate that China is funding projects in the recipient country, which lowers the need for additional funds from the World Bank. Note that this interpretation also suggests the drop in demand more than outweighs any competitive effect on supply.

What about other aspects of the project cycle—are countries more closely tied to China treated better or worse than other countries? This might reflect China exerting its influence (if we see better treatment) or U.S. attempts to limit China's sphere of influence (if we see worse treatment). To explore this, we return to three elements examined earlier: assignment of safeguards, preparation duration, and the speed of disbursement. Before we examined whether China received different treatment; now we explore whether countries linked with China receive different treatment. In each case, we use trade, FDI, and external debt to measure links to China, focus on the post-2004 sample (when China might possess influence or the U.S. might have worried about Chinese expansion), and consider all eligible borrowers except China itself.

Table 8 explores safeguard designation, parallel to Table 2 but excluding China and including variables measuring ties to China. The table reports marginal results (probability derivatives/differentials evaluated at the sample mean) from a probit estimation where the dependent variable is equal to one if the project was flagged for safeguard procedures. A few results differ from Table 2 (most notably, IDA projects are more likely to have safeguards) because it covers only the recent period. The variables measuring ties to China are uniformly insignificant.

[Table 8 here]

Table 9 explores preparation duration, parallel to Table 3 but excluding China and including variables measuring ties to China. The table reports results from a stochastic frontier analysis, where positive coefficients indicate slower preparation, i.e., countries having to "wait for their money." Baseline results (Column 1) closely match those in Table 3. In Column 2, controlling for the country's overall trade volume (which is associated with slower preparation) more trade with China is associated with faster preparation. However, this result is contingent on recent years; if, for example, we look at the period 2005 to 2013 (excluding 2014-2019), the result switches to positive and significant. In Column 3, we look instead at debt. Whether looking at high Chinese debt or high overall external debt, we find a negative association with preparation duration.[23] One interpretation of these results is that Chinese friends get their loans approved faster. Alternatively, since the debt variables have similar size coefficient estimates, we might interpret this as highly indebted countries pushing preparation forward more quickly.[24]

[Table 9 here]

Table 10 explores disbursement speed (months to reach the stated threshold), parallel to Table 4 but excluding China and including variables measuring ties to China. Results for control variables (not reported in the interest of keeping the table manageable) are similar to those in Table 4 despite the differ sample period. The results for variables measuring ties to China are remarkably consistent: stronger ties to China are uniformly associated with slower disbursement. The magnitude of the effect is easiest to assess in the debt specification: countries with high Chinese

[23] The stochastic frontier model estimator fails to converge for the FDI data (or for the 2005-2013 sample for the debt data). Results are the same in the debt estimation if we include either one of the debt variables individually, suggesting that Chinese debt is not well captured in the overall external debt and that both a similar impact on preparation duration. We get qualitatively similar results (sign and significance) if we use log of debt rather than the dummy variable approach.

[24] Note, however, that Kilby (2013) finds little evidence of borrower influence on preparation duration.

debt took 7.4 months longer to reach 25% disbursed and 12.8 months to reach 75% disbursed than countries with low Chinese debt, ceteris paribus. Overall external debt had no discernable impact on disbursement speed. Table 10 reports results including regional dummies; results are similar (same sign and significance but generally larger point estimates) in a country fixed effects specification.

[Table 10 here]

In summary, the evidence that ties to China yield benefits at the World Bank is mixed at best. We find no evidence of any reduction in the number of conditions on policy loans but instead some evidence that the number of conditions is higher. Higher levels of debt to China are associated with lower, rather than higher commitments of World Bank funds, especially IBRD loans. Unlike membership on the UNSC, ties to China have no impact on the probability of safeguard requirements that are often seen as generating a significant hassle for borrowers. More trade with China is linked to shorter project preparation duration, but this result is sensitive to including the last five years and reverses if we consider only the earlier period. Higher debt levels are associated with shorter preparation duration but this wholes for debt in general, not just debt owed to China. Finally, all three measures of economic links to China (trade, FDI and debt) are associated with substantially slower disbursement of previously committed funds. Thus, the case could be made that countries linked to China receive worse, not better, treatment from the World Bank. This push back against China's sphere of influence would be consistent with recent U.S. policy toward China.

## 5. Conclusions

Why does China continue to borrow from the World Bank? Clearly the World Bank benefits from the reliable surplus generated by IBRD lending to China. But what is in it for China?

One a priori plausible explanation is that China receives special treatment from the World Bank that makes borrowing from this otherwise slow and bureaucratic institution more palatable. We investigate this explanation from a variety of angles and find that China is indeed special in most ways—but a general picture of *favoritism* does not emerge. Instead, when one looks simply at raw numbers, China has historically received fewer funds from the World Bank than its size and need would predict. While this may be unsurprising given China's status as the world's most populous country, it is perhaps more surprising that, in a number of other dimensions of lending, China also does not receive "preferred borrower" treatment from the World Bank. In fact, it is a mixed bag, with China sometimes treated more harshly than other borrowers and sometimes faring better.

Controlling for a range of project characteristics, projects in China are more likely than other projects to receive environmental and social safeguard designation and thus be subject to extensive reviews and heightened scrutiny. Likewise, while the World Bank expedites the approval of supplemental loans for ongoing projects in other countries, it does not do so for projects in China. Conversely, large loans do disburse more quickly for Chinese projects than for others and, while the heightened environmental and social safeguard standards slow the approval of loans to China, these safeguards have less impact on disbursement for Chinese projects. Finally, World Bank staff are also substantially more likely to rate Chinese project performance as "Satisfactory" (rather than "Unsatisfactory") on completion.

What about Chinese informal influence in the World Bank? Does its status as a large and important borrower provide clout? Reports of Chinese influence abound in the popular press. Taiwan's status has always been a policy issue for Beijing and some reports point to Chinese influence in the World Bank regarding Taiwan. According to Behar (2012), a staffer in the Chinese Executive Director's office vets all World Bank documents for mentions of Taiwan, requiring the language be "fixed" as needed. Based on this and other evidence, Beher concludes that "inside the bank's Washington headquarters, China is increasingly assertive on the board level, while bank managers kowtow to China."

In 2019, Axios reported that a World Bank internal website appeared to require Taiwanese employees/consultants to obtain a PCR passport to maintain their employment, a requirement that prevent Taiwanese from doing any work for the World Bank. Officials dismissed the posting as "unofficial guidance dating to 1999, that was mistakenly placed on its internal website but was 'never adopted as policy.'" (Mother Jones 2019) The U.S. Senate is investigating. In another episode, noted World Bank critic David Malpass (later president of the World Bank) spoke out against Chinese funding of a World Bank report on the BRI, a tacit that suggests the Trump administration believes China is trying to influence the World Bank to write a favorable report (Politi 2018).

To investigate this issue of Chinese influence empirically, we look across a range of World Bank functions for evidence that it favors countries tied to China. The bulk of the evidence in fact suggests the opposite, that countries linked to China fair less well.

In sum, popular press notwithstanding, the World Bank has not yet rolled out the red carpet for China. Historically, the World Bank has lent a lot to China—but far, far less than China's size and, historically, its level of development would suggest. Nor has China's status as a major

borrower shielded it from World Bank bureaucratic hassles. In terms of informal influence, we find no evidence that China has succeeded in shaping the operational side of the World Bank to further its economic interests—though it may have more success at the policy level (Chin 2012).

Turning to speculation, we might ask why China—and its friends—face heightened scrutiny from the World Bank. This may reflect U.S. politicians' reservations about and preferences toward China. This might include pushing tighter environmental and social standards through more extensive safeguard designation during project preparation and insisting on laborious reviews for supplemental funding measures (even as supplement funds for other countries breeze through). It could extend to more rigorous application of prior actions on development policy loans for countries that are more squarely in China's economic orbit. But if World Bank staff do not share these same prejudices, the heightened standards might not apply throughout the project cycle. Specifically, we see better outcomes for China (faster disbursement, higher ratings) in the phases of the project cycle that come after a loan is approved by the Executive Board when staff may have a freer hand. While the U.S. has adopted an antagonistic approach toward a rising China, World Bank staff may have a different approach. To put it simply, the World Bank may appear strict towards China on the surface to please the U.S., but then delivers loans and other services speedily and effectively (once approved) in order to please China and keep them engaged with the World Bank.

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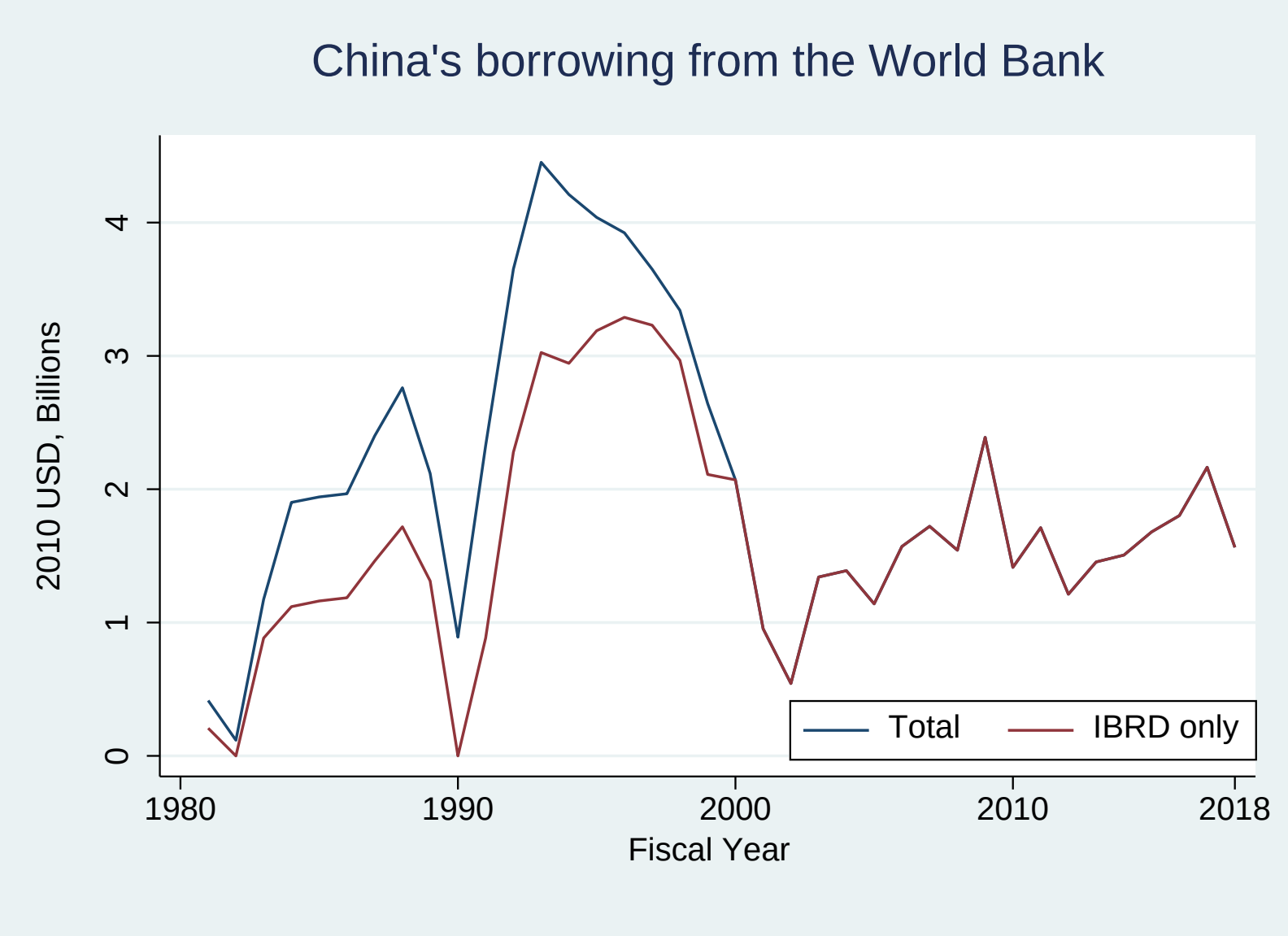
China's borrowing from the World Bank
2010 USD, Billions
0
1
2
3
4
1980
1990
2000
2010
2018
Fiscal Year
Total
IBRD only

Figure 1

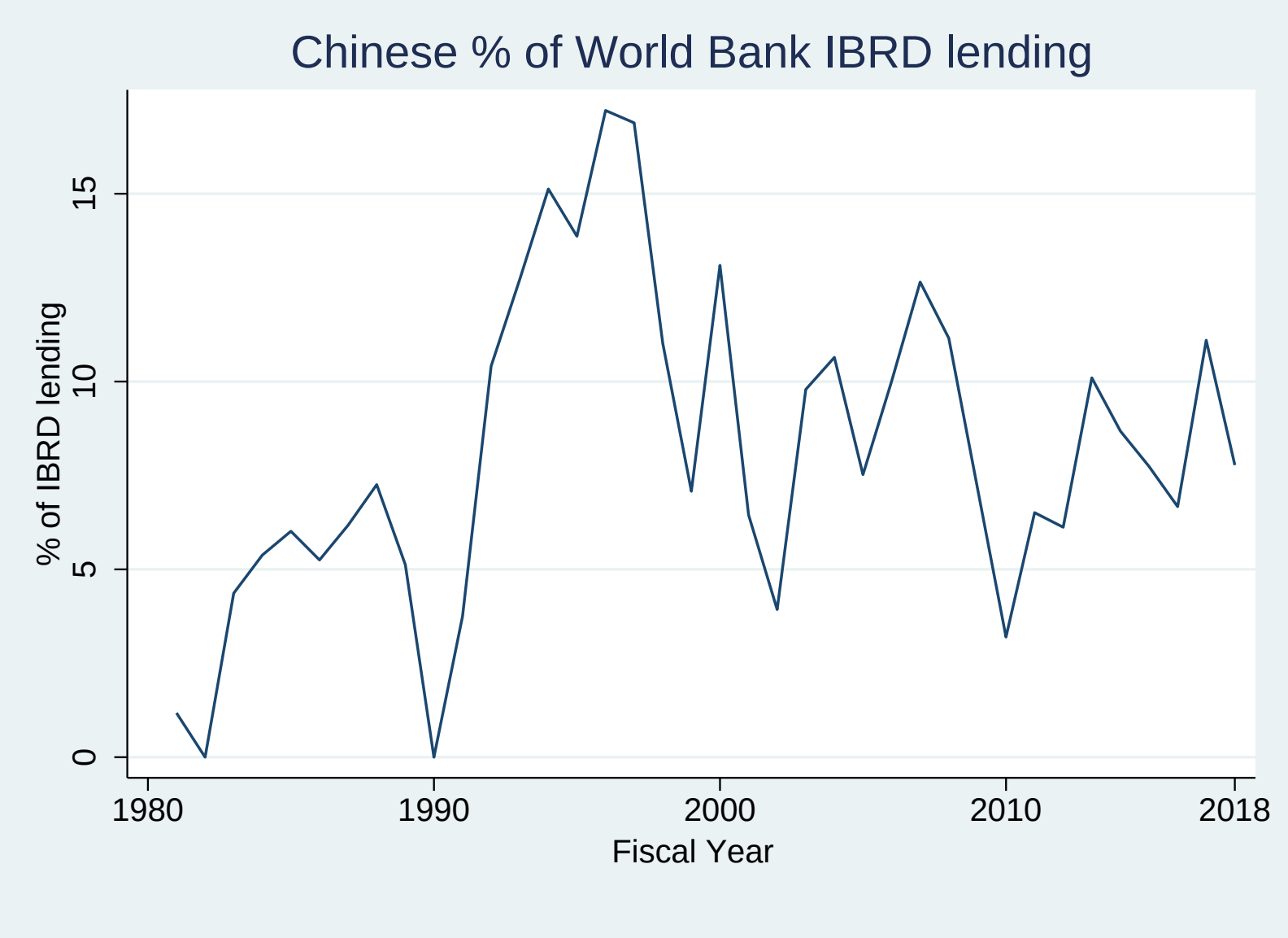
Chinese % of World Bank IBRD lending
% of IBRD lending
0
5
10
15
1980
1990
2000
2010
2018
Fiscal Year

Figure 2

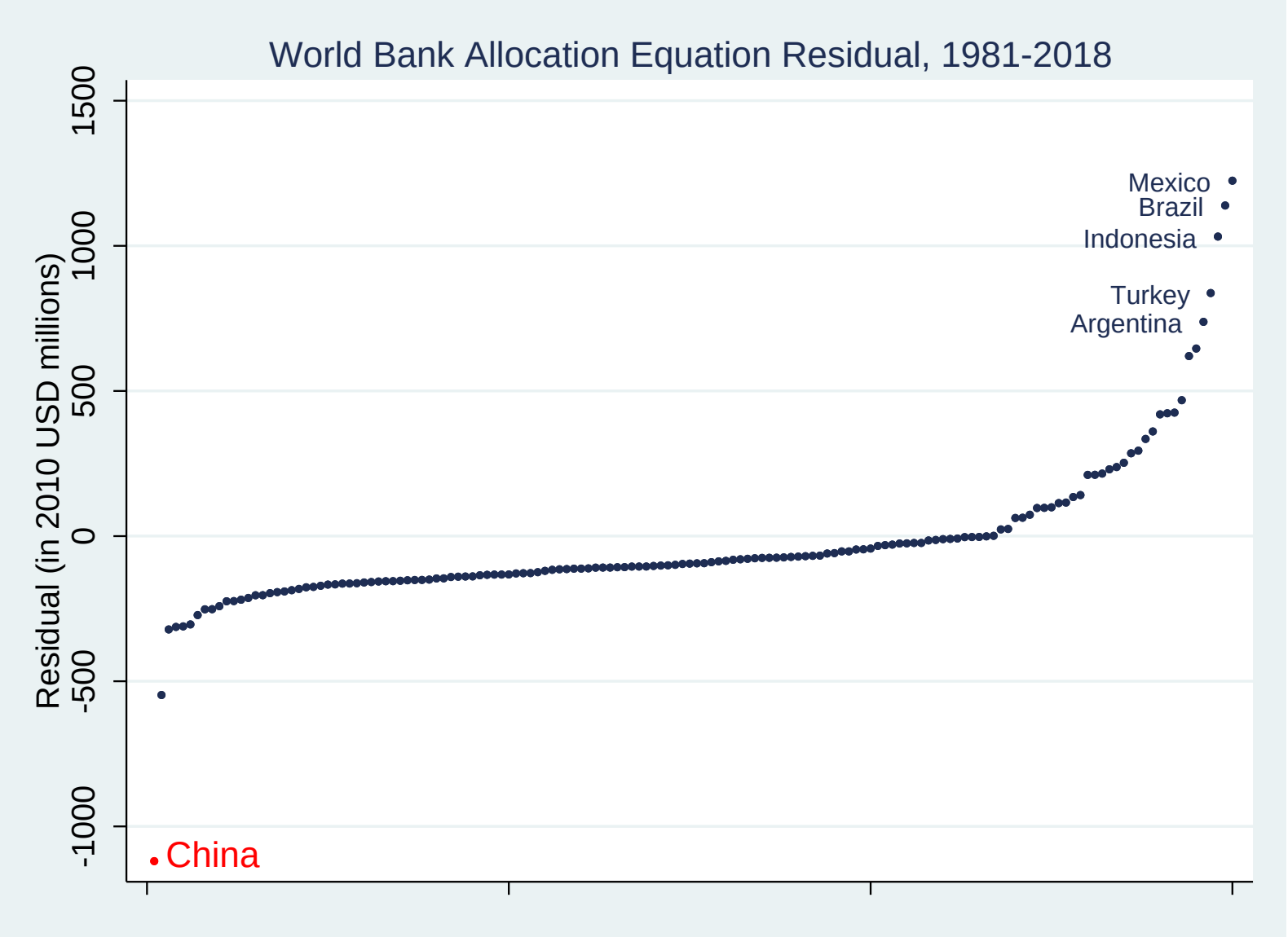
World Bank Allocation Equation Residual, 1981-2018
Residual (in 2010 USD millions)
1500
1000
500
0
-500
-1000
Mexico
Brazil
Indonesia
Turkey
Argentina
China

Figure 3

Table 1: World Bank Allocation

| | (1) |
|---|---|
| China | -2429.2*** |
| | (-3.50) |
| GDP per capita | 0.0159* |
| | (1.90) |
| Population | 3.526*** |
| | (6.16) |
| Inflation | -0.00752 |
| | (-0.82) |
| N | 4374 |

Estimation via Ordinary Least Squares. Dependent variable: total World Bank commitments in 2010 dollars. *t*-statistics in parentheses based on country-clustered SEs. Unit of observation: country-year. Data set covers 150 countries and years these countries were eligible to borrow between 1981-2018. All specifications include unreported year dummies.
* p<0.1 ** p<0.05 *** p<0.01

Table 2: Safeguard Selection

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| China | 0.130*** | 0.129*** | 0.0942*** | 0.0788*** | 0.104*** | 0.107*** |
| | (5.58) | (5.39) | (3.00) | (2.80) | (3.70) | (3.68) |
| Supplement | 0.0896*** | 0.0872*** | 0.0188 | 0.0142 | 0.0927*** | 0.0902*** |
| | (4.09) | (3.93) | (1.35) | (1.13) | (3.88) | (3.74) |
| × China | | 0.111*** | | 0.350*** | | 0.140*** |
| | | (4.24) | | (6.46) | | (4.88) |
| lnTOTALAMT | 0.0653*** | 0.0633*** | 0.0267*** | 0.0242*** | 0.0612*** | 0.0598*** |
| | (8.88) | (9.14) | (6.30) | (6.03) | (7.88) | (7.78) |
| × China | | 0.0203** | | 0.0581*** | | 0.0228*** |
| | | (2.35) | | (3.81) | | (2.87) |
| UNSC_rotate_approval | -0.0584** | -0.0592** | -0.000384 | -0.000812 | -0.0694*** | -0.0698*** |
| | (-2.54) | (-2.57) | (-0.04) | (-0.09) | (-2.67) | (-2.68) |
| IDA | -0.00101 | 0.00379 | -0.00686 | -0.00439 | 0.0150 | 0.0177 |
| | (-0.04) | (0.16) | (-0.67) | (-0.50) | (0.58) | (0.71) |
| lnGDP | -0.0237** | -0.0215** | 0.00671 | 0.00733 | -0.0269** | -0.0255** |
| | (-2.08) | (-1.98) | (1.13) | (1.35) | (-2.30) | (-2.21) |
| lnPop | 0.0125 | 0.0111 | -0.00790 | -0.00806 | 0.0144 | 0.0135 |
| | (1.14) | (1.03) | (-1.25) | (-1.40) | (1.22) | (1.15) |
| N | 9430 | 9430 | 4499 | 4499 | 8353 | 8353 |

Marginal effects from Probit Model. z-statistics in parentheses based on country-clustered SEs. World Bank investment projects approved 1990 to 2018. All specifications include unreported region, sector, financial instrument type & approval fiscal year dummies. Loan Amount, GDP, and Population in logs. Marginal effects at sample means for specifications without interaction terms. For specifications with interaction terms, marginal effects at sample means but with China=0 for non-interaction terms; × China indicates the differential shifting to China=1. * p<0.1 ** p<0.05 *** p<0.01

(1 & 2) Dependent variable: =1 if Safeguard Category A, B or F; full sample

(3 & 4) Dependent variable: =1 if Safeguard Category A; sample excludes B & F

(5 & 6) Dependent variable: =1 if Safeguard Category B; sample excludes A & F

No results reported for Safeguard Category F as dependent variable due to limited number in China.

Table 3 - Stochastic Frontier Model of Preparation Duration Impact of Safeguards

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| China | 0.344** | 0.704 | 0.290* | 0.753 |
| | (2.28) | (1.10) | (1.91) | (1.17) |
| Supplement | -1.596*** | -1.646*** | -1.596*** | -1.651*** |
| | (-16.62) | (-16.72) | (-16.59) | (-16.69) |
| × China | | 1.215** | | 1.226** |
| | | (2.23) | | (2.23) |
| Loan Amount | 0.156*** | 0.165*** | 0.144*** | 0.151*** |
| | (8.91) | (9.05) | (8.06) | (8.14) |
| × China | | -0.0711 | | -0.0409 |
| | | (-1.08) | | (-0.60) |
| Safeguard | 0.709*** | 0.693*** | | |
| | (9.87) | (9.50) | | |
| × China | | 0.379 | | |
| | | (1.11) | | |
| Safeguard Category A | | | 1.061*** | 1.140*** |
| | | | (8.94) | (9.03) |
| × China | | | | -0.182 |
| | | | | (-0.46) |
| Safeguard Category B | | | 0.672*** | 0.649*** |
| | | | (9.22) | (8.75) |
| × China | | | | 0.569 |
| | | | | (1.57) |
| Safeguard Category F | | | 0.760*** | 0.757*** |
| | | | (4.42) | (4.37) |
| × China | | | | -0.264 |
| | | | | (-0.22) |
| UNGA alignment with USA | -1.235*** | -1.193*** | -1.197*** | -1.159*** |
| | (-3.70) | (-3.54) | (-3.59) | (-3.45) |
| × China | | -2.251 | | -2.639 |
| | | (-0.95) | | (-1.10) |
| IDA | -0.281*** | -0.289*** | -0.254*** | -0.261*** |
| | (-3.90) | (-3.98) | (-3.51) | (-3.57) |
| Observations | 7711 | 7711 | 7711 | 7711 |

z-statistics in parentheses. Maximum likelihood estimation of Stochastic Frontier Model using exponential distribution and cost function approach. Dependent variable is project approval date. Explanatory variable for estimating identification date is sequentially issued project identification number. Coefficient estimates above are for variance of exponential error term and therefore estimate duration of period from identification to approval, i.e., preparation duration.
* p<0.1 ** p<0.05 *** p<0.01
All specifications include region, sector & financial instrument dummies.

Table 4: Time to 25%, 50%, & 75% Disbursement

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | 25% | 50% | 75% | 25% | 50% | 75% | 25% | 50% | 75% |
| China | -13.08*** | -18.61*** | -21.02*** | -2.200 | -2.966 | -9.002** | -3.986 | -4.553 | -9.402** |
| | (-8.10) | (-10.87) | (-11.46) | (-0.66) | (-0.77) | (-2.11) | (-1.12) | (-1.11) | (-2.14) |
| Safeguard | 1.785** | 3.307*** | 5.498*** | 1.765** | 3.320*** | 5.602*** | | | |
| | (2.36) | (3.71) | (5.77) | (2.27) | (3.66) | (5.88) | | | |
| × China | | | | 1.292 | 0.453 | -2.770* | | | |
| | | | | (1.18) | (0.35) | (-1.92) | | | |
| Safeguard Category A | | | | | | | 6.828*** | 9.597*** | 12.57*** |
| | | | | | | | (3.95) | (5.61) | (7.30) |
| × China | | | | | | | -3.948** | -5.510*** | -8.181*** |
| | | | | | | | (-1.98) | (-2.68) | (-3.85) |
| Safeguard Category B | | | | | | | 1.654** | 3.263*** | 5.501*** |
| | | | | | | | (2.08) | (3.42) | (5.54) |
| × China | | | | | | | 2.294** | 1.440 | -2.457* |
| | | | | | | | (2.27) | (1.17) | (-1.79) |
| Safeguard Category F | | | | | | | -3.938* | -5.142* | -2.781 |
| | | | | | | | (-1.73) | (-1.78) | (-0.89) |
| × China | | | | | | | 3.873 | -6.148* | -13.32*** |
| | | | | | | | (1.51) | (-1.82) | (-3.32) |
| Loan Amount | -1.866*** | -2.032** | -2.188** | -1.775*** | -1.910** | -2.115** | -2.003*** | -2.196*** | -2.426*** |
| | (-3.13) | (-2.60) | (-2.54) | (-2.95) | (-2.43) | (-2.42) | (-3.23) | (-2.78) | (-2.77) |
| × China | | | | -2.399*** | -3.212*** | -1.936*** | -1.957*** | -2.813*** | -1.803** |
| | | | | (-4.16) | (-4.76) | (-2.68) | (-3.11) | (-3.91) | (-2.38) |
| Approval Period | -0.0269*** | -0.0610*** | -0.0961*** | -0.0271*** | -0.0613*** | -0.0961*** | -0.0261*** | -0.0599*** | -0.0948*** |
| | (-4.22) | (-7.19) | (-9.95) | (-4.26) | (-7.23) | (-9.90) | (-4.14) | (-7.17) | (-9.89) |
| IDA | -0.219 | 0.0794 | 0.175 | -0.241 | 0.0127 | 0.0453 | -0.133 | 0.172 | 0.260 |
| | (-0.14) | (0.04) | (0.08) | (-0.15) | (0.01) | (0.02) | (-0.08) | (0.09) | (0.11) |
| Inflation | -0.000312 | -0.000621 | -0.00559 | -0.000330 | -0.000634 | -0.00556 | -0.000291 | -0.000555 | -0.00546 |
| | (-0.09) | (-0.10) | (-0.86) | (-0.10) | (-0.10) | (-0.85) | (-0.08) | (-0.09) | (-0.84) |
| lnGDP | 1.976*** | 2.316*** | 2.568*** | 1.932*** | 2.247*** | 2.504*** | 2.024*** | 2.385*** | 2.658*** |
| | (2.77) | (2.69) | (2.66) | (2.72) | (2.63) | (2.61) | (2.70) | (2.65) | (2.66) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| lnPop | 0.232 | 0.628 | 0.944 | 0.237 | 0.643 | 0.970 | 0.138 | 0.500 | 0.810 |
| | (0.33) | (0.71) | (0.84) | (0.34) | (0.73) | (0.86) | (0.19) | (0.55) | (0.70) |
| Observations | 5618 | 5618 | 5618 | 5618 | 5618 | 5618 | 5618 | 5618 | 5618 |

t statistics in parentheses based on country-clustered standard errors. All specifications include sector & financial instrument dummies. * p<0.1 ** p<0.05 *** p<0.01
(1,4,7) DV: # months to reach 25% disbursement for investment projects
(2,5,8) DV: # months to reach 50% disbursement for investment projects
(3,6,9) DV: # months to reach 75% disbursement for investment projects

Table 5: Project Outcomes

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| China | 0.137*** | 0.160*** | 0.144*** | 0.145*** |
| | (4.25) | (5.25) | (4.23) | (4.01) |
| Safeguard | -0.0444** | -0.0450** | | |
| | (-2.57) | (-2.52) | | |
| × China | | 0.0174 | | |
| | | (0.99) | | |
| Safeguard Category A | | | -0.100** | -0.128*** |
| | | | (-2.33) | (-3.04) |
| × China | | | | 0.143*** |
| | | | | (3.67) |
| Safeguard Category B | | | -0.0438** | -0.0406** |
| | | | (-2.42) | (-2.20) |
| × China | | | | -0.0456* |
| | | | | (-1.76) |
| Loan Amount | -0.00942 | -0.00857 | -0.00760 | -0.00668 |
| | (-1.25) | (-1.12) | (-0.94) | (-0.83) |
| × China | | -0.00964 | | -0.0182*** |
| | | (-1.56) | | (-2.89) |
| UNSC @ ICR | 0.0793*** | 0.0814*** | 0.0785*** | 0.0811*** |
| | (3.15) | (3.13) | (2.93) | (2.95) |
| Control of Corruption | 0.113*** | 0.115*** | 0.112*** | 0.116*** |
| | (5.91) | (5.97) | (5.85) | (5.94) |
| IDA | 0.0473* | 0.0468* | 0.0403 | 0.0449 |
| | (1.75) | (1.70) | (1.45) | (1.52) |
| GDP | -0.0350** | -0.0364** | -0.0376** | -0.0380** |
| | (-2.04) | (-2.09) | (-2.16) | (-2.12) |
| Population | 0.0472*** | 0.0484*** | 0.0496*** | 0.0503*** |
| | (2.63) | (2.65) | (2.70) | (2.68) |
| Observations | 3439 | 3439 | 3352 | 3352 |

z-statistics in parentheses based on country-clustered SEs. * p<0.1 ** p<0.05 *** p<0.01. World Bank investment projects approved after FY 1989 & evaluated before FY 2015. Probit Model. Dependent variable: =1 ICR Outcome Rating is Satisfactory. Marginal effects at sample mean. All models include region, sector, financial instrument type & fiscal year dummies. Loan Amount, GDP & Population in logs. Columns (3) & (4) exclude Safeguard Category F projects because none occurred in China in the sample period. For specifications with interaction terms, marginal effects at sample means but with China=0 for non-interaction terms; "× China" indicates the differential shifting to China=1.

Table 6: Prior Actions

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Loan Amount | 0.0119 | 0.0236 | 0.0189 | 0.0291 |
| | (0.66) | (1.30) | (1.04) | (1.57) |
| Population | -0.00149 | -0.0176 | -0.0102 | -0.0247 |
| | (-0.07) | (-0.73) | (-0.46) | (-1.02) |
| GDP | 0.0934** | 0.120** | 0.0908** | 0.118*** |
| | (2.11) | (2.61) | (2.19) | (2.68) |
| Inflation | -0.00142 | -0.00190 | -0.00149 | -0.00216 |
| | (-0.77) | (-1.08) | (-0.84) | (-1.27) |
| Trade with China | 0.0515** | 0.0500* | 0.0449* | 0.0436 |
| | (2.13) | (1.84) | (1.91) | (1.63) |
| Trade with US | -0.0205 | -0.0204 | -0.0178 | -0.0185 |
| | (-0.89) | (-0.83) | (-0.79) | (-0.76) |
| Trade with World | -0.110*** | -0.119*** | -0.104*** | -0.112*** |
| | (-2.82) | (-2.74) | (-2.73) | (-2.78) |
| FDI inflow China | | 0.00859** | | 0.00848** |
| | | (2.14) | | (2.07) |
| FDI inflow US | | -0.0155* | | -0.0143 |
| | | (-1.80) | | (-1.61) |
| FDI inflow World | | 0.0126 | | 0.0101 |
| | | (0.82) | | (0.67) |
| UNSC membership | | | -0.0370 | 0.00545 |
| | | | (-1.36) | (0.15) |
| UN alignment | | | -0.275** | -0.258** |
| | | | (-2.13) | (-2.01) |
| Observations | 739 | 512 | 739 | 512 |
| Countries | 107 | 89 | 107 | 89 |

Ordinary Least Squares. Dependent variable is the log of the number of prior actions. t-statistics in parentheses based on country-clustered SEs. Unit of observation: project. World Bank development policy projects approved from 2005 to 2018. All specifications include unreported region, loan sector and approval year dummies. Loan amount, Population, GDP, Trade and FDI variables logged. * p<0.1 ** p<0.05 *** p<0.01

Table 7: Allocation and China Linkages

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | WB | WB | IBRD | IBRD | IDA | IDA |
| HighChnDebt | -127.8*** | -0.443* | -219.1*** | -0.489 | 2.201 | -0.295 |
| | (-2.85) | (-1.93) | (-3.08) | (-1.38) | (0.06) | (-1.12) |
| HighExternalDebt | -102.6** | -0.0462 | -78.33 | 0.362 | -74.40** | -0.502* |
| | (-2.53) | (-0.24) | (-1.20) | (1.44) | (-2.55) | (-2.00) |
| GDP | 0.0218 | -0.220 | 0.0554*** | 1.071*** | -0.0426** | -0.103 |
| | (1.45) | (-1.22) | (2.81) | (3.45) | (-2.47) | (-0.65) |
| Pop | 2.895*** | 0.956*** | 1.767*** | -0.259 | 1.028*** | 0.735*** |
| | (6.40) | (5.84) | (6.18) | (-0.86) | (4.23) | (4.72) |
| Inflation | 0.0326 | -0.00196*** | 3.985 | -0.0162* | -0.0119 | -0.00163*** |
| | (0.38) | (-6.75) | (1.26) | (-2.00) | (-0.31) | (-8.98) |
| N | 1587 | 1587 | 767 | 767 | 1084 | 1084 |
| Countries | 92 | 92 | 52 | 52 | 66 | 66 |

Ordinary Least Squares. t-statistics in parentheses based on country-clustered SEs. Unit of observation: country-year. Data set covers 97 countries and years 2000-2017. All specifications include unreported year and region dummies. Dependent variable: Total loan commitments for columns (1) and (2), IBRD loan commitments for columns (3) and (4), IDA loan commitments for columns (5) and (6).
High China Debt = 1 if debt to China is at least 1 percent of GDP; High External Debt = 1 if external debt is at least 40 percent of GNI;
Odd columns: Dependent variable is in 2010 USD; GDP is GDP per capita; Pop is Population
Even columns: Dependent variable is log loan amount; GDP is log GDP; Pop is log Population
* p<0.1 ** p<0.05 *** p<0.01

Table 8: Safeguard Selection

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Supplement | 0.0843*** | 0.0833*** | 0.126*** | 0.126*** |
| | (3.91) | (3.82) | (5.01) | (5.97) |
| Loan Amount | 0.0517*** | 0.0516*** | 0.0459*** | 0.0519*** |
| | (6.53) | (6.38) | (4.61) | (5.62) |
| UNSC membership | -0.0577** | -0.0574** | -0.0597* | -0.0666** |
| | (-2.20) | (-1.99) | (-1.71) | (-2.37) |
| IDA | 0.0717** | 0.0833*** | 0.102*** | 0.0880*** |
| | (2.54) | (2.91) | (3.02) | (2.75) |
| GDP | -0.00364 | 0.00509 | 0.00681 | -0.0108 |
| | (-0.27) | (0.28) | (0.30) | (-0.81) |
| Population | -0.00544 | -0.00947 | -0.00461 | -0.000547 |
| | (-0.40) | (-0.70) | (-0.24) | (-0.04) |
| Trade with China | | 0.0146 | | |
| | | (1.19) | | |
| Trade with US | | -0.0144 | | |
| | | (-1.46) | | |
| Trade with World | | -0.00282 | | |
| | | (-0.11) | | |
| FDI inflow China | | | 0.000750 | |
| | | | (0.29) | |
| FDI inflow US | | | -0.000585 | |
| | | | (-0.12) | |
| FDI inflow World | | | -0.00176 | |
| | | | (-0.16) | |
| UN alignment with US | | | | |
| HighChnDebt | | | | -0.0367 |
| | | | | (-1.54) |
| HighExternalDebt | | | | -0.0165 |
| | | | | (-0.99) |
| N | 5780 | 5206 | 3332 | 4177 |

Marginal effects from Probit Model. z-statistics in parentheses based on country-clustered SEs. Dependent variable: =1 if Safeguard Category A, B or F. World Bank investment projects approved 1990 to 2018 (excluding China). All specifications include unreported region, sector, financial instrument type & approval fiscal year dummies. Loan Amount, GDP, Population, Trade & FDI in logs. Marginal effects at sample means. * p<0.1 ** p<0.05 *** p<0.01

Table 9 - Stochastic Frontier Model of Preparation Duration Impact of Safeguards

| | (1) | (2) | (3) |
|---|---|---|---|
| Supplement | -1.722*** | -1.758*** | -1.745*** |
| | (-16.87) | (-16.73) | (-14.68) |
| Loan Amount | 0.164*** | 0.114*** | 0.140*** |
| | (8.14) | (5.13) | (5.83) |
| Safeguard | 0.772*** | 0.794*** | 0.715*** |
| | (9.09) | (9.11) | (7.14) |
| IDA | -0.283*** | -0.0664 | -0.204* |
| | (-3.29) | (-0.70) | (-1.92) |
| UNSC member | -0.273** | -0.414*** | -0.322** |
| | (-2.14) | (-3.17) | (-2.35) |
| Trade with China | | -0.131*** | |
| | | (-2.75) | |
| Trade with US | | -0.0361 | |
| | | (-0.80) | |
| Trade with World | | 0.322*** | |
| | | (3.86) | |
| HighChnDebt | | | -0.180** |
| | | | (-1.98) |
| HighExternalDebt | | | -0.194** |
| | | | (-2.06) |
| Observations | 5411 | 5265 | 4188 |

z-statistics in parentheses. Maximum likelihood estimation of Stochastic Frontier Model using exponential distribution and cost function approach. Dependent variable is project approval date. Explanatory variable for estimating identification date is sequentially issued project identification number. Coefficient estimates above are for variance of exponential error term and therefore estimate duration of period from identification to approval, i.e., preparation duration. All specifications include region, sector & financial instrument dummies. [FDI results not included; specification did not converge.] * p<0.1 ** p<0.05 *** p<0.01

Table 10: Time to 25%, 50%, & 75% Disbursement

| | (1) 25% | (2) 50% | (3) 75% | (4) 25% | (5) 50% | (6) 75% | (7) 25% | (8) 50% | (9) 75% |
|---|---|---|---|---|---|---|---|---|---|
| lnChinaTrade | 1.995** | 2.818** | 2.799** | | | | | | |
| | (1.99) | (2.43) | (2.34) | | | | | | |
| lnUSA_trade | -0.600 | -1.352 | -2.150** | | | | | | |
| | (-0.77) | (-1.43) | (-2.15) | | | | | | |
| lnWorld_trade | 1.959 | 2.248 | 3.533 | | | | | | |
| | (1.11) | (0.95) | (1.43) | | | | | | |
| lnChinaFDIinflow | | | | 1.008*** | 1.010*** | 1.300*** | | | |
| | | | | (4.86) | (3.84) | (4.38) | | | |
| lnUSFDIinflow | | | | 0.579 | 0.342 | 0.0917 | | | |
| | | | | (1.56) | (0.77) | (0.19) | | | |
| lnTotalFDIinflow | | | | -0.634 | -0.858 | -1.204 | | | |
| | | | | (-0.83) | (-0.98) | (-1.31) | | | |
| HighChnDebt | | | | | | | 7.410*** | 10.47*** | 12.82*** |
| | | | | | | | (4.65) | (5.12) | (5.40) |
| HighExternalDebt | | | | | | | 1.049 | 0.988 | -0.434 |
| | | | | | | | (0.72) | (0.53) | (-0.21) |
| Observations | 2235 | 2236 | 2237 | 1626 | 1654 | 1682 | 1900 | 1901 | 1901 |

t-statistics in parentheses based on country-clustered standard errors. All specifications include region, sector, financial instrument, ESS, and IDA dummies, as well as commitment amount (log, real), inflation, GDP (log), and population (log). HighChnDebt=1 if Debt to China is 1% of GDP or higher; HighExternalDebt=1 if total external debt is 40% of GNI or higher. Sample covers IBRD/IDA projects approved from 2005 to 2019; * p<0.1 ** p<0.05 *** p<0.01
(1,4,7) DV: # months to reach 25% disbursement for investment projects
(2,5,8) DV: # months to reach 50% disbursement for investment projects
(3,6,9) DV: # months to reach 75% disbursement for investment projects

Appendix

Table A1: Descriptive Statistics for Allocation Analysis (Table 1)

| | mean | sd | min | max |
|---|---|---|---|---|
| China | 0.011 | 0.108 | 0 | 1 |
| GDP (logged) | 9.763 | 2.026 | 3.533 | 16.195 |
| Population (logged) | 2.261 | 1.852 | -4.544 | 7.239 |
| GDP per capita | 3128.6 | 3364.4 | 137.6 | 29268.9 |
| Population | 52.064 | 176.0 | 0.011 | 1392.7 |
| Inflation | 30.86 | 213.92 | -29.17 | 6041.6 |
| | | | | |
| Observations | 3215 | | | |

Table A2: Descriptive Statistics for investment project selection for Safeguards (Table 2)

| | mean | sd | min | max |
|---|---|---|---|---|
| China | 0.048 | 0.214 | 0.000 | 1.000 |
| Safeguard | 0.607 | 0.488 | 0.000 | 1.000 |
| Safeguard type A | 0.087 | 0.282 | 0.000 | 1.000 |
| Safeguard type B | 0.494 | 0.500 | 0.000 | 1.000 |
| Safeguard type F | 0.027 | 0.161 | 0.000 | 1.000 |
| UNSC @ approval | 0.077 | 0.266 | 0.000 | 1.000 |
| Loan Amount | 2.689 | 1.992 | 0.000 | 8.230 |
| Supplement | 0.142 | 0.349 | 0.000 | 1.000 |
| IDA | 0.434 | 0.496 | 0.000 | 1.000 |
| FY | | | 1990 | 2018 |
| Observations | 9430 | | | |

Table A3: Descriptive Statistics for Preparation Duration estimation (Table 3)

| | mean | sd | min | max |
|---|---|---|---|---|
| Board Approval date | 5/15/2008 | 2155 days | 3/31/1994 | 4/6/2018 |
| Project ID Number | 102130 | 32956 | 31828 | 157084 |
| China | 0.045 | 0.207 | 0.000 | 1.000 |
| Safeguard | 0.618 | 0.486 | 0.000 | 1.000 |
| Safeguard type A | 0.083 | 0.276 | 0.000 | 1.000 |
| Safeguard type B | 0.502 | 0.500 | 0.000 | 1.000 |
| Safeguard type F | 0.032 | 0.176 | 0.000 | 1.000 |
| UNGA alignment with USA | 0.302 | 0.110 | 0.109 | 0.836 |
| Loan Amount | 2.523 | 2.031 | 0.000 | 8.230 |
| Supplement | 0.168 | 0.374 | 0.000 | 1.000 |
| IDA | 0.431 | 0.495 | 0.000 | 1.000 |
| | | | | |
| Observations | 7711 | | | |

Table A4: Descriptive Statistics for investment project speed of disbursement (Table 4)

| | mean | sd | min | max |
|---|---|---|---|---|
| # Months to 25% | 38.329 | 21.471 | 2.000 | 120.000 |
| # Months to 50% | 54.704 | 26.863 | 2.000 | 120.000 |
| # Months to 75% | 70.051 | 30.870 | 2.000 | 120.000 |
| China | 0.060 | 0.238 | 0.000 | 1.000 |
| Safeguard | 0.665 | 0.472 | 0.000 | 1.000 |
| Safeguard Category A | 0.110 | 0.313 | 0.000 | 1.000 |
| Safeguard Category B | 0.524 | 0.499 | 0.000 | 1.000 |
| Safeguard Category F | 0.031 | 0.173 | 0.000 | 1.000 |
| (max) approvalperiod | 524.647 | 99.221 | 354.000 | 701.000 |
| IDA | 0.586 | 0.493 | 0.000 | 1.000 |
| Loan Amount | 3.933 | 1.220 | -0.547 | 8.230 |
| Inflation | 22.204 | 148.430 | -13.925 | 3880.336 |
| GDP | 24.721 | 2.291 | 17.437 | 30.011 |
| Population | 17.146 | 2.031 | 9.315 | 21.055 |
| | | | | |
| Observations | 5618 | | | |

IBRD/IDA investment projects approved between July 1989 and June 2019

Table A5: Descriptive Statistics for Project Performance estimation (Table 5)

| | mean | sd | min | max |
|---|---|---|---|---|
| Outcome Rating | 0.746 | 0.435 | 0 | 1 (ICR rating) |
| China | 0.056 | 0.231 | 0 | 1 |
| Safeguard | 0.583 | 0.493 | 0 | 1 |
| Safeguard Category A | 0.088 | 0.283 | 0 | 1 |
| Safeguard Category B | 0.470 | 0.499 | 0 | 1 |
| Safeguard Category F | 0.025 | 0.157 | 0 | 1 |
| Loan Amount | 3.349 | 1.505 | 0 | 6.919 |
| UNSC @ ICR | 0.081 | 0.273 | 0 | 1 |
| Control of Corruption | -0.499 | 0.522 | -1.722 | 1.592 |
| IDA | 0.505 | 0.500 | 0 | 1 |
| GDP | 24.468 | 2.168 | 18.746 | 29.246 |
| Population | 16.997 | 1.958 | 10.606 | 21.004 |
| FY | 1998.211 | 4.946 | 1990 | 2009 |
| | | | | |
| Observations | 3439 | | | |

Table A6: Descriptive Statistics for Prior Actions estimation (Table 6)

| | mean | sd | min | max |
|---|---|---|---|---|
| # of Prior Actions | 2.279836 | .3463468 | 0 | 3.526361 |
| | | | | |
| Total Loan Amount | 4.493382 | 1.415498 | .9162908 | 7.601402 |
| Population | 2.790259 | 2.013638 | -4.522945 | 7.188797 |
| GDP | 10.51645 | 2.318921 | 3.538351 | 14.72475 |
| Inflation | 6.466436 | 6.990067 | -4.620603 | 80.75458 |
| | | | | |
| Trade w China | 7.383318 | 2.444317 | .9550837 | 11.50519 |
| Trade w US | 7.100611 | 2.884177 | .4664962 | 13.13553 |
| Trade w World | 9.856022 | 2.208422 | 4.12672 | 13.54671 |
| | | | | |
| FDI inflow World | 6.967695 | 2.455066 | -2.028035 | 11.48681 |
| FDI inflow US | 2.826961 | 3.865169 | -2.302585 | 9.361782 |
| FDI inflow China | -.0822621 | 3.897738 | -2.302585 | 9.538932 |
| | | | | |
| Observations | 512 | | | |

All variables except for Inflation are in logs.