Assessing the Impact of China's Aid on the World Bank Conditionality

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Abstract

This study aims to investigate whether the stringency of conditions attached to the World Bank aid projects are influenced by the additional supply of aid from China. The World Bank's conditionality has been disaggregated into prior actions and benchmarks. Prior actions are the legal conditions that determine aid disbursement, while benchmarks describe the contents and progress of an aid project. We find that, in particular, China is challenging the way the World Bank is providing aid to African countries, and its impact appears evident from the World Bank's response; it has reduced the number of prior actions. However, providing an alternate source to China's aid for other regions seems rather difficult, as no statistically significant association between China's aid and prior actions can be found.

1. Introduction

Prosperity, well-being and living standards are not evenly distributed among countries. The prosperous countries, therefore, extend support to developing countries in the form of aid with the hope of setting the latter on the path of progress. An unending debate exists on the likely implications and effectiveness of foreign aid. The advocates of the foreign aid doctrine have produced a considerable amount of work as well as evidence to show a positive role that has been played by the foreign aid in accomplishing development targets (Hansen and Tarp, 2001). On the other hand, the critiques of the doctrine see foreign aid as a source of exploiting the developing countries (Moyar, 2016). However, ironically, at a time of enormous skepticism about foreign aid, the number of aid donors have hit an all-time high. Specifically, there has been an emergence of 'new' donors in the foreign aid market which operate outside the traditional Development Assistance Committee (DAC). The increasing influence of new donors on parts of the developing world seems to challenge the established aid principles held by traditional donors.

The group of new donors mainly comprise of BRIC and Arab countries. The most prominent among them is China who has emerged as the largest global provider of aid, surpassing the aid volumes of traditional multilateral institutions, i.e., the World Bank and largest DAC donor, i.e., the US (Zhou and Xiong, 2017). A contrast between China and traditional donors' aid approach is the use of conditionality in the form of reforms to enhance transparency, fiscal efforts and governance. China's approach is grounded in 'non-interference policy' which stipulate that there is no interference in the "internal affairs of the recipient countries and fully respecting their right to independently choose their own paths and models of development" (State Council, 2014). The non-interference approach has been criticised in the literature under the assumption that it has enabled China to be welcomed by poorly governed countries. In contrast, traditional donors require conditionality in the form of reforms to enhance transparency, fiscal efforts, human rights and curtailing corruption. For instance, The World Bank uses i) binding conditions known as 'prior actions' through which aid flows could be curtailed if recipient countries do not implement specific policies; and ii) non-binding conditions known as 'benchmarks' as a reference framework and management tool to indicate the overall performance of an aid program.

Although China does not set the typical type of conditions as that of traditional donors, its apparently unconditional aid approach does not mean that China's aid comes with no strings attached. As argued by Wang and Ozanne (2000), China's aid is often "tied" and provided on commercial conditions, i.e., importing raw materials from China, the aid project being undertaken by Chinese firms, sending Chinese labour to recipient countries as well as provide training of the recipient's labour.

The literature argues that an increase in the supply of China's aid with fewer performance-based conditions has offered attractive alternatives for recipient countries and they are generally more comfortable with obtaining easy and quick credit from China (Li, 2017). Some cases are reported in the literature in which developing countries have preferred receiving aid from China over the World Bank, IMF or other DAC donors. An empirical study by Granath (2016) investigated the relationship between China's and DAC aid flows and found that there is a competition between China and traditional donors to provide aid to the same recipient countries. Noticing this competition created by the contrasting approach of new vs traditional donors, Hernandez (2017) examined the impact of the increase in supply of aid resources from five new donors (i.e., China, India, Kuwait, Saudi Arabia and the United Arab Emirates) on the World Bank's use of conditionality in African countries.

Hernandez proposed that the World Bank could react to the additional aid resources from new donors in two ways: either it will call for reforms promoted through conditions if the additional aid from new donors seems to cause debt overhang in recipient countries, or it may have to offer aid with fewer conditions for attracting recipients in order to stay competitive. Specifically, the study hypothesised that "The World Bank will revise its conditionality downwards if the presence of new donors creates an increase in the supply of development resources in the recipient country and upwards if it does not" (Hernandez, 2017, p. 532) According to his findings, the World Bank delivers aid with significantly fewer conditions to African recipient countries financed by China in order to stay competitive with China's apparently less-conditional aid. In contrast, the impact of other new donors on the World Bank conditionality was found to be less relevant. Since Hernandez's study focused only on recipient countries situated in Africa, there is a question as to whether the research findings can be generalised to the entire pool of aid-recipient countries across different regions.

This study attempts to extend Hernandez's pioneering work with the aim of investigating whether China's emergence as an aid donor had any discernible impact on the conditionality of aid provided by the World Bank. We examined a sample of 132 China's aid-recipient countries across the world. This work is feasible given the release of newly available data on 'Global Coverage of Chinese Aid' by AidData (a research lab at the College of William and Mary). The analysis focuses on China because of two reasons. First, the data on China's aid has the most comprehensive and detailed information at the project-level. Second, China is the only new donor whose aid spending has become comparable in scale with the World Bank and the US (See Figure 1). The aid spending of other new donors is quite small as compared to China (See Figure 2).

The study adds three distinctive contributions to this body of literature. First, we test Hernandez's hypothesis on the recipient countries beyond Africa by extending the data coverage on China's aid from 1952 aid projects in Africa to 4300 aid projects across the world. The data quality within African aid projects has also been improved by the identification of suspended or cancelled projects by AidData.

Second, we disaggregate China's aid into Official Development Assistance (ODA) and Other Official Flows (OOF). ODA includes official projects that are primarily aimed at development, with at least 25% concessionality (OECD, 2018a). OOF is also provided by official agencies but on terms that more closely resemble market conditions (OECD, 2018b). It comprises of export financing and other commercial activities that promote the donor countries economic interests; or developmental loans that are less concessional than ODA. For the purpose of this study, this disaggregation is important because a) a large proportion of China's global aid spending comprises of OOF; and b) the World Bank might react differently to different types of China's aid based on their concessional level.

Third, we disaggregate the World Bank conditionality into Prior Actions and Benchmarks. Prior actions are a set of policies and institutional actions that a recipient country has to take before the World Bank approves an aid project. Whereas, benchmarks are not legal conditions and, they are only used as reference frameworks to describe the content and results of an aid project (for details, see Section 2). Based on their completely different setting approach as well

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as the unsettled argument on counting benchmarks as conditions, it is important to analyse them separately where possible.

The next section presents the context and determinants of the World Bank conditionality. It is followed by a discussion on how China differs from traditional donors in Section 3 and an overview of China's aid spending in Section 4. Section 5 discusses the impact of China's aid on the World Bank conditionality. Section 6 discusses the extension of Hernandez's study and Section 7 explains the research design. Results are presented in Section 8 and Section 9 concludes.

2. World Bank Conditionality

2.1. Context

Conditionality can be defined as "specific-predetermined requirements that directly or indirectly enter into a donor's decision to approve or continue to finance a loan or grant" (Reality, 2007). Foreign aid has progressively become subject to conditionality on the basis of the proposition that aid only works in a good policy environment. The primary motive of specifying conditions on lending is to connect aid to the implementation of critical reforms in the interest of recipient country's economic growth and development.

Conditionality can be influential in meeting developmental targets provided with the aid because it gives an intervening authority to the World Bank when recipients do not act by the agreed terms. The World Bank uses conditionality in order to make sure that the aid it provides help the recipient countries in meeting their development targets (effectiveness rationale), and to validate that the aid resources are used for their intended purposes (fiduciary rationale).

The World Bank conditionality is classified into two main types: prior actions (binding conditions) and benchmarks (non-binding conditions). Prior actions are legal conditions for disbursement, and they can be defined as "a set of mutually agreed policy and institutional actions that are considered critical for achieving the objectives of the project supported by a development policy operation and that a country agrees to take before the Board approves a

loan" (Development Policy Operations, 2009). On the other hand, benchmarks are "the implementation progress markers of the program which describe the content and results of the government's program in areas monitored by the Bank" but they are not legal conditions for disbursement (Development Policy Operations, 2009). In other words, disbursements of the World Bank's loan or grants does not depend on the benchmarks and hence, they are not included in the legal agreements as conditions. They are only used as a reference framework and management tool to indicate the overall performance of measures that the recipient countries tend to implement under a policy program.

2.2. Factors Determining Conditionality

The existing literature on conditionality has investigated donor-recipient negotiation by performing comprehensive case studies, such as those unfolding donor-recipient interactions in borrowing countries (e.g. Broad 1988) or those examining conditionality in structural adjustment programs (e.g. Killick 1998; Mosley et al., 1991). Researchers started to incorporate a bargaining perspective into cross-country analyses of aid projects after the 2000s. For instance, Dreher (2004) did the pioneering work on explaining the process behind determining IMF conditionality and the relative bargaining power of recipients.

It has been argued in the literature that three sides participate in the negotiation of a World Bank development project, namely recipient-country technocrats, development agency staff and major shareholders, and conditionality reflects the outcome of bargaining between these three relevant actors (Hernandez, 2017). All three actors share the common interest of promoting growth and development in the recipient countries in the long run, but their short-term interests may vary. As discussed before, the World Bank seeks to implement conditionality as a tool to increase the effectiveness of its development projects. Nevertheless, recipient's bargaining power is a potential constraint on the World Bank's ability to impose its desired level of conditionality.

In much of the public debates on foreign aid, recipient countries are often portrayed as helpless when dealing with influential international financial agencies, and they are described as being forced to accept conditional loans. In reality, however, recipients have the ability to revise conditionality in their favour or to reject an aid agreement if no-agreement outcome gives a

higher utility to the recipient (Dreher, 2004). Whereas, recipient governments share the long-term aim of economic development with the shareholders and the World Bank, in short run they seek to achieve two goals: to stay in power, and to implement their preferred policies. They often have incentives to avoid reforms due to significant political costs. Recipients generally prefer less conditionality than the World Bank's ideal level and will seek to decrease the number of conditions during the negotiation process. There are various determinants of recipients' bargaining power, for instance, economic and political situation of a recipient country. Conditionality links aid projects to reforms that are considered essential for the recipient's economic growth and development. The better the economic and political situation of a country, fewer reforms will be needed and hence, the stronger the bargaining position of the recipient country to negotiate over conditionality (Dreher, 2003). Alongside economic and political situation, an important factor determining their bargaining power is the supply of aid resources from other donors to fulfil their total demand for aid. This aspect is discussed in Section 5.

3. Some Characteristics of China's Aid in Contrast with Traditional Donors

3.1. Transparency

Traditional donors publicly release detailed and timely information on aid volume, and, when available, results of aid spending in order to enable precise accounting and audit by recipient countries. In contrast, China does not keep data on its aid as defined by the OECD standards, which breaks down where foreign aid goes, and what it is used for. There is a lack of information on the negotiation process of an aid project between the recipients and the Chinese government.

In response to the persistent criticism about a lack of transparency, the Chinese government released the first White Paper on foreign aid in 2011 by the Information Office of the State Council. By disclosing information on the overall volume of aid, the paper has finally provided the world with the first official figures on China's aid: "By the end of 2009, China had provided a total of 256 billion yuan in aid to foreign countries" (State Council, 2011). The paper broadly

disaggregates the total amount of aid into grants, interest-free loans and concessional loans. However, it provided no information on how much aid is going to which recipient countries. Three years after the publication of the first White Paper, State Council of China issued the second White Paper on China's foreign aid on July 10, 2014 (State Council, 2014). While the release of the two White Papers have improved the information base on which research on China's aid may be conducted, it was still nearly impossible to fully track the amount and recipients of China's yearly aid allocations.

Later in 2013, Strange and co-authors' at AidData has fully uncovered how much money China gives in aid to recipient countries across the globe. The AidData team uses an open-source and innovative data collection methodology called Tracking Underreported Financial Flows (TUFF) to capture China's aid spending at the project level from 2000-2014. It provided an opportunity to the academic scholars to run the first cross-country regressions on China's aid flows.

3.2. Non-Interference Policy

Traditional donor's aid policy is well known for its selectivity and conditionality (Burnside and Dollar, 2000). On the other hand, China's aid approach is based on 'non-interference policy', i.e., "willingness to provide aid without Western lectures about governance and human rights" (Economist, 2010). China's foreign aid policies stipulate that it does not impose any political conditions and there is no interference in the "internal affairs of the recipient countries and fully respecting their right to independently choose their own paths and models of development" (State Council, 2014). At a press briefing in April 2011, China's Vice Minister of Commerce, Fu Ziying claimed that "China does not attach any political strings to its aid" (People's Daily Online, 2011). The absence of conditionality makes China's aid attractive to leaders who fear that institutional reforms attached with aid projects might send a negative political signal and the opposition parties might use that against the government (Mohan and Power 2008; Swedlund 2017). As argued by Brazys and Vadlamannati (2018, p. 5), "... leaders have no incentive to introduce costly and political unpopular economic reforms if they have sufficient fungible resources to maintain support in the short term if Chinese aid allows them to maintain support and power".

Although China does not set the typical type of conditions as that of traditional donors, their unconditional aid approach does not mean that its aid comes with no strings attached. Wang and Ozanne (2000) elaborated this point by arguing that China's aid is often "tied" and provided on the condition that Chinese firms undertake the aid project. Consequently, the transfer of funds takes place in between the Chinese government banks and Chinese firms. Furthermore, China sends its labour to the recipient countries as well as provide training of the recipients' labour where needed. So, China's aid involves "a complete package of measures, combining technical solutions with financing backed by state-owned banks, together with Chinese labour to implement them" (Wang and Ozanne, 2000).

4. China's Aid Spending

Figure 1 compares the aid volumes of China with the most significant traditional donor, i.e., the US and the World Bank. In the initial years, China disbursed very less aid than both the US and the World Bank. Specifically, China started with a small aid budget of around 547 million USD in the year 2000 whereas the aid budget of US and the World Bank stood at 20 and 30 billion USD respectively. Later, in the mid-2000s, China's aid spending becomes closer to the amount spent by the US and the World Bank. Surprisingly, China surpassed the aid budget of both the US and the World Bank and reached its peak in the year 2009 at around 70 billion USD. This was the year when China's Development Bank (CDB) offered long term loans to national energy companies and government entities in Russia, Turkmenistan, Venezuela, and Ecuador (Downs, 2011). CDB has lent Russian oil companies alone 35 billion USD in return for future oil supplies (Downs, 2011). While China's aid spending declined after 2009, it continued to give more aid than the US and the World Bank in the period 2011 to 2013. Notice that the World Bank's aid has also spiked in the year 2009. The reason why the World Bank's aid goes up in line with the increase in China's aid was the deteriorating global conditions and the World Bank's response towards growing needs. The severe food and fuel price crises placed a heavy fiscal, economic and social burden on many developing countries and the World Bank disbursed $32 billion to support the adversely affected developing countries.

Figure 1: How Does China Compare Against the Traditional Donors?
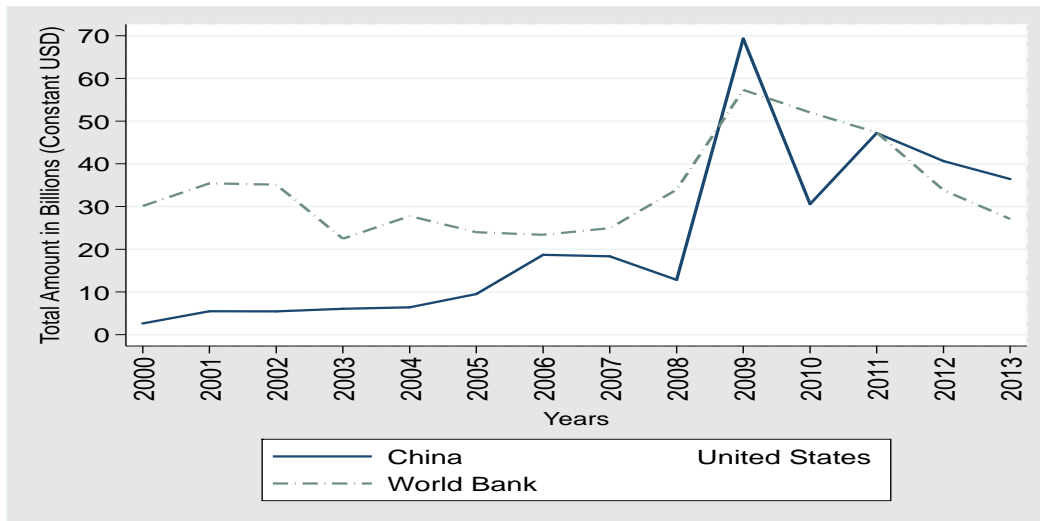
Notes: The figure shows the total amount of aid given by the China, US, and the World Bank to recipient countries across the world over the 2000-2013 period. Figures are reported in constant USD (base year 2014) and scaled to million. Source: AidData (2017).

Figure 2 compares the trend of China's aid with other important new donors, i.e., India, Kuwait, Saudi Arabia and UAE. The aid volumes have been plotted for the period of 14 years from 2000 to 2013. The difference in their aid volumes can be clearly seen from the figure, where China is the largest among the group of new donors in terms of its aid volume. Compared to China, the scale of aid from other new donors is quite small.

Figure 2: How Does China Compare Against the 5 New Donors?
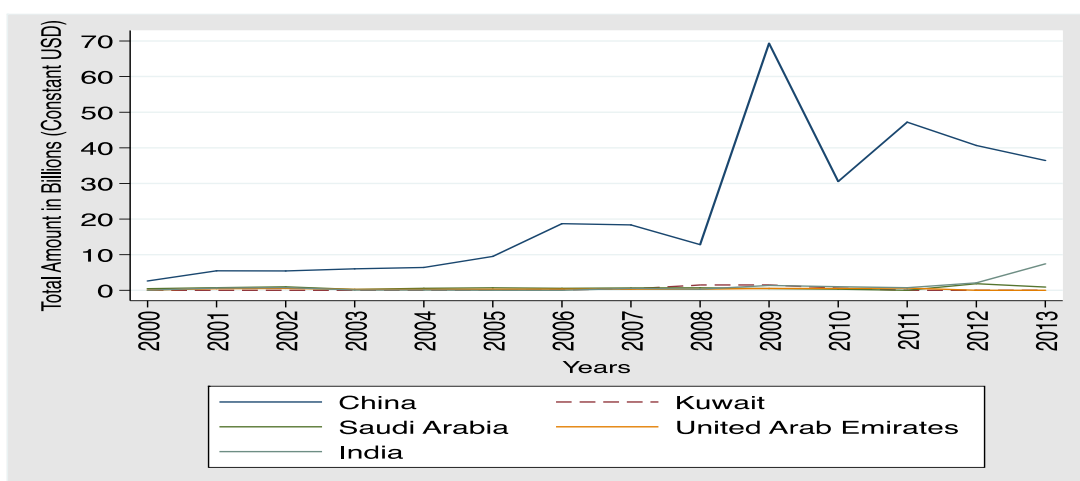
Notes: The figure shows the total amount of aid given by the 5 new donors, i.e., China, Kuwait, India, Saudi Arabia, United Arab Emirates to recipient countries across the world over the 2000-2013 period. Figures are reported in constant USD (base year 2014) and scaled to millions. Source: AidData (2017).

Figure 3 illustrates the geographical distribution of China's aid. Africa is the greatest recipient of China's aid, accounting for more than 38% of its total aid volume. It reflects that China has dedicated more considerable attention to the region. Latin America and the Caribbean is the second region most benefited by China's aid. East Asia and Pacific receive less aid than both the Middle East and North Africa and South Asia. Overall, the figure shows that China's aid has a special focus on Africa; nevertheless, it maintains a global outlook, providing aid to all regions.

Figure 3: Geographical Distribution of China's Total Aid, 2000-2014
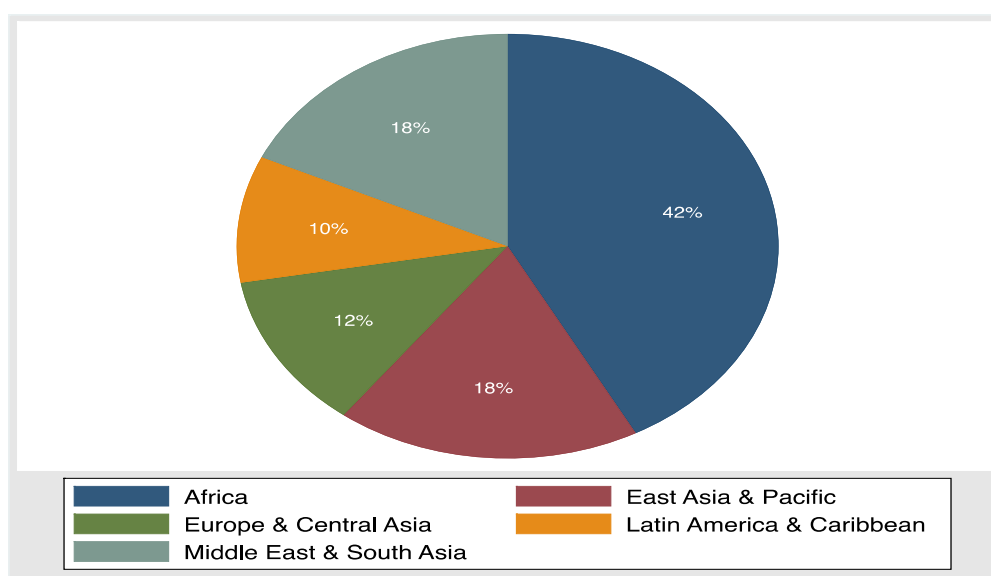
Notes: The figure shows the geographical distribution of China's total aid to 132 aid-recipient countries across 5 regions namely, Africa, Europe and Central Asia, Middle East and South Asia, East Asia and Pacific, Latin America and Caribbean. Source: AidData (2017).

5. Impact of China's aid on the World Bank Conditionality

There is a strong discourse among scholars on the rise of China's aid and its consequences on the international donor community (Brant, 2013; Chen and Zhang, 2014; Hernandez, 2017). They argue that China is giving competition to traditional donors by providing recipient countries with an attractive source of financing aid projects which does not require reforms to enhance transparency, fiscal efforts and curtailing corruption. The alternative source of apparently unconditional credit from China could improve the bargaining position of recipient countries, influencing the extent to which the World Bank imposes conditionality with aid

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projects (Hernandez, 2017, p.532). Corkin (2014) interviewed an Angolan civil society representative and a Chinese diplomat in Luanda who commented that: "The World Bank, the IMF are losing to the Chinese, they feel that some of their influence is being taken away by China" (Corkin, L.J., 2014). Another empirical study by Granath (2016) evaluated China's and DAC aid flows to African countries and found that there is a competition between China and DAC donors to provide aid to the same recipient countries.

Hernandez (2017) constitutes pioneering work of linking the aid activities of new donors in Africa with the World Bank conditionality. He argued that the World Bank could react to the additional aid resources from new donors in two ways; First, it may impose more conditions to call reforms if aid from new donors seems to cause debt overhang in recipient countries. Second, it may have to offer aid with fewer conditions for attracting recipients in order to stay competitive with new donors. By analysing the number of conditions per project from the World Bank, Hernandez (2017) found that the World Bank has imposed significantly fewer conditions on its aid to African recipient countries when they are also assisted by China.

Initially, it might not be obvious why the World Bank should have an interest in maintaining its aid volume. Its answer can be found from the literature on the political economy where there has been a broad consensus that all donors, including the World Bank have their own interest for disbursing aid. Dreher (2004), for example, suggests that "the key motivation for the World Bank not to retain its aid resources is the fact that its lending is entirely financed with money from the capital markets". Consequently, the World Bank is under pressure to lend its resources. The authors further argued that "the World Bank's most crucial peer group are private bankers, holding the World Bank's resources will give them the impression that that the staff cannot effectively evaluate the projects at the beginning, which will be detrimental to the staff's reputation. Thus, the staff members are commonly evaluated according to their ability to lend the money prepared for their region" (Dreher, 2004, p.447). Besides, major stakeholders of the World Bank often have strategic incentives to keep the operations running in recipient countries of their commercial and political interest, i.e., getting favourable votes in United Nations General Assembly (UNGA) (Dreher, Sturm, Vreeland, 2009; Thacker, 1999). As the US is the major shareholder in the World Bank, closer allies to the US are expected to be rewarded with more aid. However, other than the US, the four prominent Board members, i.e., Japan, Germany, France, U.K, also exert influence on the World Bank decisions.

6. Extension of Hernandez's Study

Hernandez (2017) investigated the impact of new donor's aid on cumulative World Bank conditions. Specifically, he hypothesized that:

Hernandez's Hypothesis: *The World Bank will revise its conditionality downwards if the presence of new donors creates an increase in supply of development resources in the recipient country and upwards if it does not.*

This study provides an extension of Hernandez's analysis with the objective of learning the strengths and shortcomings of his pioneering work on the impact of China's aid on the World Bank conditionality and to check the robustness of his results. This study adds the following three extensions to Hernandez's analysis:

6.1. Better Data Coverage

The study extends Hernandez's hypotheses to other countries beyond Africa by using the data on global coverage of China's aid. AidData first released its dataset in 2014 on 1,952 China's aid projects in 50 African countries. Hernandez (2017), among others, has used this dataset to analyse the allocation of China's aid in African countries. In October 2017, AidData released the global coverage of China's aid covering 4300 projects in 140 developing countries across six regions. In this latest version, not only has AidData expanded the data coverage but they also have improved the quality of data by clearly identifying the suspended or cancelled aid flows which should not be included in any research analysis in order to avoid double counting. This study extends Hernandez's dataset on 1952 aid projects in Africa to 4300 aid projects on recipient countries across the world.

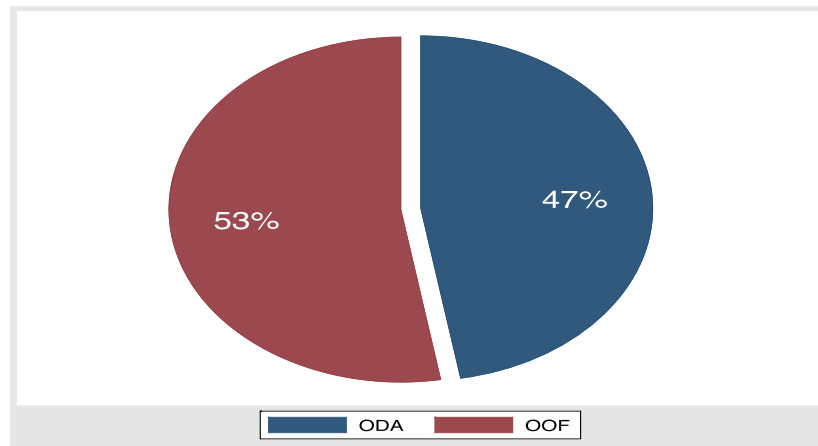## 6.2. Disaggregation of China's Aid into ODA and OOF

Hernandez has defined China's aid in terms of ODA. In contrast to Hernandez (2017), the study uses a relatively broader definition of China's aid which includes both development and

commercial aid. AidData has classified China's aid into ODA and OOF based on some common characteristics, for example, the interest rate charged, the grace periods offered or the intent of the aid project (i.e., commercial, representational or developmental). For a project to be categorised as ODA in AidData database, the intent field must be "development", and the flow type field must be grant-like or a concessional loan. Whereas, for a project to be categorised as OOF, the intent must be primarily "commercial or representational" and include less than 25% concessionality.

As can be seen from Figure 4, a larger proportion of China's aid (53%) is distributed as OOF. The dominance of OOF in China's aid budget indicates the importance of separately analysing ODA and OOF, since the sole analysis of ODA or OOF will not paint an accurate picture of China's aid. As argued by Dreher et al., (2018), "much of the controversy about China's aid stems from a failure to distinguish between China's ODA and OOF." (p.182). Therefore, comparing the effects of China's ODA and OOF should help in investigating whether they have a distinctive impact on the World Bank conditionality; the former being more concessional and development-oriented and the later less concessional and more commercial oriented.

Moreover, the World Bank might react differently to different types of China's aid based on their concessional level. The level of concessional element of an aid project is determined by its grant element. Consequently, we expect that the larger the grant element of China's aid projects, the more the recipient countries will value the transfer and thus the lesser number of conditions have to be offered by the World Bank in order to attract the recipients. Whereas, we expect the decrease in conditions would be lesser for less concessional forms of China's aid, i.e., OOF.

Figure 4: China's Development Aid (ODA) and Commercial Aid (OOF), 2000-2014

Notes: The figure shows the total proportion of ODA and OOF in China's total aid given to 131 recipient countries. Source: AidData (2017).

6.3. Disaggregation of the World Bank Conditionality into Prior Actions and Benchmarks

Our hypotheses differentiate from Hernandez (2017) by disaggregating conditionality into prior actions (binding conditions) and benchmarks (non-binding conditions). The rationale behind this disaggregation is to see if China's aid has a differential impact on prior actions and benchmarks given their different scopes. Prior actions, for example, involve critical reforms and are expected to produce significant institutional and economic changes once implemented, while benchmarks do not require any economic or political effort by the recipient country (Lamdany and Hamann, 2008). In a World Bank aid program approved in Peru in 2002, the government agreed on a prior action of privatisation of its electricity generation company, involving tough domestic negotiations. Whereas, when Lesotho obtained an aid project in 2001, it agreed on a benchmark in the form of releasing its monthly budget execution report (a relatively easy condition to fulfil).

Following Hernandez, we assume that China imposes less or no conditions with the aid offered. We argue China's aid creates an increase in the supply of development resources in recipient countries. This additional supply of aid will enable recipient countries to be more selective about the source and conditions of aid they accept, increasing their bargaining power with traditional donors. In response to this increased competition, the World Bank will decrease the number of prior actions attached with its projects because recipient countries tend to negotiate

over a lesser number of prior actions to be attached with aid projects. On the other hand, as benchmarks are non-binding conditions and recipient countries are indifferent to them, the World Bank does not need to change the number of benchmarks. Hence, we hypothesise that:

Hypothesis I. *An increase in the supply of China's aid should reduce the number of prior actions attached to new World Bank aid projects.*

Hypothesis II. *An increase in the supply of China's aid should have no effect on the number of benchmarks attached to new World Bank aid projects.*

7. Research Design

To empirically test the postulated hypotheses, the influence of China's aid on the World Bank's decision to impose prior actions and benchmarks would be analysed on 132 aid-recipient countries. The analysis focus on the 2001-2014 period and the unit of analysis is the recipient country-year.[1] Our basic econometric models read as follows:

$$Avg.PriorActions_{it} = \alpha_0 + \alpha_1 WBAid_{it} + \alpha_2 Avg.Fields_{it} + \alpha_3 China'sAid_{it-1} + \alpha_4 X_{it} + \lambda_i + \gamma_t + \varepsilon_{it} \qquad (1)$$

$$Avg.Benchmarks_{it} = \alpha_0 + \alpha_1 WBAid_{it} + \alpha_2 Avg.Fields_{it} + \alpha_3 China'sAid_{it-1} + \alpha_4 X_{it} + \lambda_i + \gamma_t + \varepsilon_{it} \qquad (2)$$

7.1. Dependent Variable

The dependent variable is the respective average number of prior actions (Avg. Prior Actions), and benchmarks (Avg. Benchmarks) attached to the World Bank projects that a recipient country *i* receives in a year *t* (i.e., number of prior actions and benchmarks/number of projects).

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1 For testing the second hypothesis on benchmarks, the analysis focuses on the period 2006-2012 as the data on benchmarks is only available for this period. The comparable number of years were also tested for prior action and the results stay the same.

As Dreher and Jensen (2007) noted, it is difficult to measure and compare the degree of severity of conditions in an objective way, so it is common to use the number of conditions as a proxy to measure the extent of their stringency (consistent with Gould, 2003; Hernandez, 2017). As the number of aid projects that a country receives is an important indicator of the number of conditions negotiated; hence the dependent variable is constructed as the average number of prior actions and benchmarks to account for the possibility of a country receiving more conditions due to more projects than comparable recipient countries.

7.2. Explanatory Variables

Our primary variable of interest is China's Aid. Throughout the study, China's 'Official Finance' has been used as a broader definition of China's aid. It includes concessional and non-concessional sources of funding from Chinese government institutions. The variable China's aid measures the cumulative amount of China's aid provided to recipient country i in period t-1. Following Hernandez (2017), this measure has been expressed in logarithmic form.[2] In order to avoid the potential endogeneity and reverse causality, this measure has been lagged by one year.

Next, to explain the variation in conditionality due to the size of the project, the analysis includes the magnitude of the World Bank aid (*WB Aid*). It corresponded to the size of the World Bank aid project received by recipient country in a year in terms of dollar amounts. Bigger World Bank projects are expected to be offered with more conditions, as it is likely that larger projects demand greater reform (McLean and Schneider, 2014; Hernandez, 2017).

It is also anticipated that a World Bank project targeting various fields is more likely to include a large number of conditions; hence the number of fields (Avg. Fields) covered by conditions in each World Bank project to a recipient country has been included. Fields represent the economic sectors that are impacted by the reform measures (prior actions) supported by the project.

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2 To keep the zero observations, a value of 1 has been added before taking logarithms.

7.3. Control Variables

To reduce the likelihood of omitted variable bias, the study employs a standard set of control variables in line with Hernandez (2017). First, general control variables are included to reject the economic and political situation of the recipient country since the literature indicates that good economic and political conditions reduce the scope of conditionality (Dreher, 2009; Hernandez, 2017). As discussed above, conditionality links aid projects to reforms that are considered essential for the recipient's economic growth and development. The better the economic and political situation of a country, fewer reforms will be needed and hence, the stronger the bargaining position of the recipient country to negotiate over conditionality (Dreher, 2003). Some standard measures of economic conditions are the growth rate of GDP per capita, government consumption expenditures, external debt, and international reserves. Each of these variables is expressed as a percentage of GDP except for international reserves.[3] A negative correlation between the growth rate of GDP per capita and number of conditions is expected since richer countries are usually in a better bargaining position over the negotiation of conditionality (Steinwand and Stone, 2008; McLean and Schneider, 2014). The World Bank is also expected to demand fewer conditions from countries with higher international reserves. In contrast, higher government consumption and a higher government debt burden will trigger more conditions to be included in an aid agreement to incentivize sustainable public finances and the recipient country's ability to pay back the loans in the future. Inflation is included as an indicator for the instable economic situation and thus the need for reforms. We expect that if the inflation rate is high prior to the World Bank aid agreement, it will cause a relatively larger number of prior actions to be included in the aid project.

The political situation is measured by the extent of good governance in a recipient country (Democracy). We use the Polity IV dataset a proxy for good governance in our model. The data is available across recipient countries and time. The variable measures the level of democracy in a country, ranging from -10 (autocratic) to 10 (fully democratic). In terms of geopolitics, the study uses a country's voting behaviour in the United Nations General

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3 Following Hernandez (2017), reserves are expressed in logarithmic form to deal with over-dispersion in the distribution.

Assembly (UNGA) as a proxy to measure how closely a recipient country is allied with the US- the largest shareholder at the World Bank.

All control variables are lagged by one year. This is because the decision of the Board to impose conditionality is based on observed information available at the time of making the lending decision from the previous year. λ_i and γ_t represent country and year fixed effects, respectively. A description of all variables along with the data sources is presented in Table 1.1 and descriptive statistics are presented in Table 1.2.

Table 1.1: Variable Description and Sources

| Variables	Description	Data Source
Avg. Prior Actions	Average number of World Bank prior actions per project delivered to a recipient country in a year.	Development Policy Action Database (2017)
Avg. Benchmarks	Average number of World Bank benchmarks per project delivered to a recipient country in a year.	Development Policy Action Database (2017)
China's Aid (log, t-1)	Cumulative amount of China's aid that a recipient country has received in a year in constant dollars.	Global Coverage of Chinese Aid (2017)
World Bank Aid (log)	Cumulative amount of World Bank aid that a recipient country has received in a year in constant dollars.	Tierney et al., (2011)
Avg. Fields	Average number of fields covered per project that a recipient country has received in a year.	Development Policy Action Database (2017)
CPI Growth (t-1)	Inflation rate as measured by the CPI, transformed by x/(100+x).	World Development Indicators (2017)
Investments (% of GDP, t-1)	Gross fixed capital formation as a percentage of GDP.	World Development Indicators (WDI) (2017)
Reserves (% of GDP, t-1)	Total reserves including gold as a percentage of GDP.	WDI (2017)
GDP Growth (t-1)	Growth rate of GDP per capita.	WDI (2017)
Gov. Expd. (% of GDP, t-1)	Government expenditures as a percentage of GDP.	WDI (2017)
Int. Reserves (log, t-1)	International reserves as a percentage of total external debt.	WDI (2017)
Investments (% of GDP, t-1)	Investment as a percentage of GDP.	WDI (2017)
Ext. Debt (% of GDP, t-1)	External debt as a percentage of GDP.	WDI (2017)
UN Voting Aff. US (t-1)	Voting compliance mean with the US in the UNGA by a recipient country in a year from 0 (no compliance) to 1 (full compliance).	Strezhnev and Voeten (2013)
Democracy (t-1)	Democracy index, from -10 (full autocracy) to 10 (full democracy).	Marshall and Jaggers (2000)
India's Aid (log, t-1)	Cumulative amount of India's aid that a recipient country has received in a year in constant dollars.	Tierney et al., (2011)
Kuwait's Aid (log, t-1)	Cumulative amount of Kuwait's aid that a recipient country has received in a year in constant dollars.	Tierney et al., (2011)
Saudi Arabia's Aid (log, t-1)	Cumulative amount of Saudi Arabia's aid that a recipient country has received in a year in constant dollars.	Tierney et al., (2011)
U.A.E's Aid (log, t-1)	Cumulative amount of U.A.E's aid that a recipient country has received in a year in constant dollars.	Tierney et al., (2011)

Table 1.2: Summary Statistics (2000-2014)

Variables	Obs	Mean	Std. Dev.	Min	Max
World (132 Countries)					
Avg. Prior Actions	517	12.80851	8.989663	2	85
Avg. Benchmarks	341	11.05279	17.92657	0	101
China's Aid (t-1)	1,904	7.715131	8.74209	0	8.14e+09
China's ODA (t-1)	1,904	7.105111	8.968444	0	3.79e+10
China's OOF (t-1)	1,904	4.22686	7.979403	0	6.21e+10
Avg. Fields	514	4.546206	2.313953	1	17
World Bank's Aid	1,904	12.35264	8.772232	0	9.51e+09
GDP per Capita (log, t-1)	1,779	7.296967	1.100178	4.631275	10.03199
GDP Growth (t-1)	1,764	2.968282	6.466724	-62.22509	122.9683
CPI Growth (t-1)	1,557	0.070958	0.0827209	-0.2211299	0.8371089
Gov. Expd. (% of GDP, t-1)	1,513	15.12422	8.548765	0.9517466	135.794
Int Reserves (log, t-1)	1,523	18.73697	19.10587	0.0306302	318.5605
Investments (% of GDP, t-1)	1,505	22.07075	8.245953	0.2928698	68.02272
Ext. Debt (% of GDP, t-1)	1,594	55.64963	48.30084	0	485.6684
UN Voting Aff. US (t-1)	1,698	0.157903	0.1115222	0	1
Democracy (t-1)	1,522	2.280552	5.954418	-10	10

7.4. Estimator

Given the count nature of the dependent variable, the basic methodology clearly rests on Poisson regression models (PRM); this reflects the fact that count outcomes are discrete and violate the underlying assumption of Ordinary Least Square (OLS), i.e., the outcomes are not continuous, and the residuals may not have a bell-shaped pattern. In the PRM, the mean of the distribution is a function of the independent variables, and the conditional mean of the dependent variable must be equal to the conditional variance. However, if this is not the case, the Negative Binomial Regression (NBRM) can be used for over-dispersed count data. NBRM differs from the PRM in that it estimates a parameter which captures and tests for the over dispersion of the data. In other words, PRM assumes that the dependent variable is equi-distributed while the NBRM incorporates the overdispersion as a parameter in the model. Figure 5 depicts the kernel density estimate of the total number of World Bank prior actions per project, using an epanechnikov weight and a hundred grid points. Highest densities can be noted for prior actions in the range of 5 and 15. Moreover, only a small number of projects

have more than 40 prior actions, and the distribution reaches its maximum at 85 prior actions. This characteristic shows that potentially a poisson distribution fits well with the data.

Figure 5: Kernel Distribution of Average Number of World Bank Prior Actions per project in 132 Aid-Recipient Countries, 2000-2014
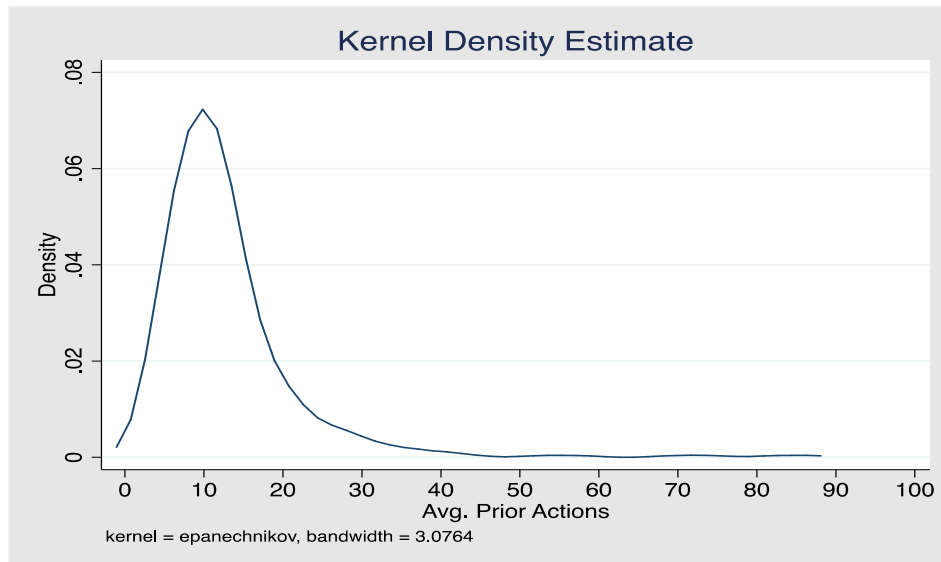
Notes: The figure shows the Kernel distribution for the average number of the World Bank Prior Actions per project to aid-recipient countries across world over the 1980-2014 period. Source: World Bank Development Policy Action Database (DPAD, 2016).

To further evaluate the adequacy of Poisson specifications, we look at descriptive statistics in Table 1.2 for the average number of prior actions and benchmarks. It, however, shows that the data is likely to be over-dispersed as the variance for the average number of prior actions and benchmarks is far greater than their mean values (see Table 1.2). We then performed Cameron and Trivedis (CT) test (1990) to formally check overdispersion. The CT test confirmed the presence of overdispersion and; hence we continue with the negative binomial regression. Standard errors are clustered by recipient country to control for potential heteroscedasticity.

8. Results

The empirical analysis is divided into two parts. The first part investigates the impact of China's aid on prior actions, while the second part investigates its impact on benchmarks. This

disaggregation would allow us to check whether China's aid has a differential effect on prior actions and benchmarks given their completely different nature, setting approach and purpose.

8.1. Prior Actions

The analysis begins with estimating the impact of China's aid on an average number of prior actions (*Avg. Prior Actions*) in 52 aid-recipient countries in Africa for the 2000-2014 period (see *Model 1*). The dependent variable measures the average number of prior actions per World Bank project, an African country *i* receives in year *t*. The results report the marginal effects at the mean of each variable. The standard errors are heteroskedasticity-robust and clustered by the recipient country.

The marginal effect of total China's aid in *Model 1* turned out to be negative and significant at the five percent level (see Table 1.3). In particular, a one percent increase in China's aid is expected to decrease the average number of prior actions imposed on African recipient countries by 0.06, ceteris paribus, in the following year. This finding is consistent with Hernandez's results limited to China's ODA. However, the magnitude of the coefficient is much larger (i.e. 0.15) in Hernandez's results. The difference in magnitude has potentially arisen because of the data updates.

There are two possible interpretations of the negative relationship between China's aid and prior actions. Firstly, from the recipient's perspective, the availability of additional aid resources from China strengthens the bargaining position of recipients in the negotiation over prior actions. Secondly, from the World Bank's perspective, the additional supply of China's aid increases competition in the international aid market and the World Bank reacts to it by offering aid with fewer prior actions.

As a next step, we disaggregate China's aid into ODA and OOF. This is because the World Bank might react differently to different types of aid based on their concessional level or grant element. Consequently, we expect that the larger the grant element of China's aid projects, the more the recipient countries will value the transfer and thus the lesser number of prior actions have to be offered by the World Bank in order to attract the recipients. Whereas, we expect the decrease in prior actions would be lesser for less concessional forms of China's aid, i.e., OOF.

To account for this discrepancy, *Model 2* estimates the individual impact of China's ODA and OOF on the World Bank's prior actions. This is in contrast with Hernandez's study which has only counted aid as strictly ODA. As can be seen from *Model II*, we find significant negative effects of China's ODA on prior actions. Specifically, a one-percent increase in China's ODA will reduce the average number of prior actions by 0.07 in the following year. On the other hand, we do not find any significant impact of OOF on prior actions.[4] Overall, it indicates that the World Bank offers aid with fewer prior actions to countries receiving concessional lending (i.e., ODA) from China.

Next, we extend the analysis to 132 recipient countries around the world in receipt of China's aid (*Model 3*) in order to see if the above results can be generalised globally to all the countries in receipt of China's aid. The coefficient on China's aid appears with a negative sign; however, it is not significantly different from zero. In addition, the coefficients on disaggregated form of China's aid, i.e., ODA and OOF also remain insignificant (*Model 4*). It indicates that our key results (as well as Hernandez's findings) should be interpreted with caution as they are only limited to African countries receiving aid from China. Perhaps, China's particular focus in Africa and it's rising percentage of aid in this region has induced the World Bank to lower its conditionality. As shown in Figure 3, 42% of China's aid is directed towards Africa, suggesting that the World Bank is facing a tougher competition to maintain its aid volume in Africa. Other bilateral and multilateral donors have also given high priority to using aid resources to help solve Africa's poverty problems. The willingness of China as well as other donors in providing aid to Africa, alongside the high poverty level in the region, seems to build up a pressure on the World Bank to be particularly cautious of its lending instruments in Africa. For instance, the relatively weaker institutional capacity in Africa constraints the World Bank's expectations regarding the effectiveness of its aid projects. Whereas, other regions have relatively stronger institutional capacity to absorb aid flows as well as the ability to sustain the investment and economic policies afterwards. Moreover, other regions have relatively lesser financial options to fulfil their aid-based needs as China as well as other donors provide a relatively low percentage of their aid to these regions. Potentially, the World Bank could, therefore, have a

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4 The results qualitatively remain the same if we instead analyse separate models for ODA and OOF. Results are available upon request.

stronger bargaining position to negotiate over a higher level of conditionality in aid agreements with countries situated in non-African regions.

Note that our sample in *Model 3 and 4* consist of recipient countries all over the world, yet it did not allow for any regional heterogeneity. Consequently, *Model 5* introduces slope and intercept dummies for the five regions receiving China's aid namely: Europe and Central Asia, East Asia and Pacific, Latin America and Caribbean, Middle East and South Asia and Africa.[5] The conjecture was that China's aid is disproportionately directed towards some regions, consequently, the World Bank might impose a different level of conditionality across regions. To avoid falling into the dummy variable trap and to avoid the problem of collinearity, we dropped the dummy for Africa. All of the geographical intercept dummies except for the Middle East & South Asia turned out insignificant. The negative and statistically significant coefficient on the Middle East & South Asia suggests that if a country is situated in the Middle East & South Asia, the World Bank will impose significantly fewer prior actions on it as compared to Africa, i.e., on average it will receive 1.09 less prior actions than Africa. As concerns the slope dummies, none of them are statistically different from zero confirming that our key results do not suffer from regional bias.

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5 The study used the World Bank's geographical classification of countries; however, North and Sub-Saharan Africa was merged into one in order to make the African countries comparable with Hernandez (2017).

Table 1.3: China's Aid and World Bank Prior Actions, Negative Binominal, 2001-2014

	Africa		World		
	Model 1	Model 2	Model 3	Model 4	Model 5
China's Aid (log,t-1)	-0.0608**		0.0229		-0.0004
	(0.0275)		(0.5923)		(0.9240)
China's ODA (log,t-1)		-0.0776**		-0.0151	
		(0.0106)		(0.6881)	
China's OOF (log,t-1)		0.0202		0.0127	
		(0.6422)		(0.7847)	
Avg. Fields	0.4754**	0.4738**	0.7452***	0.7474***	0.0642***
	(0.0142)	(0.0198)	(0.0000)	(0.0000)	(0.0000)
World Bank's Aid (log)	0.1243*	0.1243**	0.0258	0.0265	0.0016
	(0.0540)	(0.0486)	(0.5521)	(0.5475)	(0.7038)
GDP per Capita (log,t-1)	4.1384*	4.2080*	0.5096	0.3333	-0.0045
	(0.0782)	(0.0572)	(0.7324)	(0.8142)	(0.9724)
GDP Growth (t-1)	0.1796	0.1911	0.1289*	0.1295*	0.0128*
	(0.3121)	(0.2733)	(0.0929)	(0.0906)	(0.0621)
CPI Growth (t-1)	-0.3419	-0.6862	7.4631	7.5494	0.6599
	(0.9604)	(0.9226)	(0.2930)	(0.2860)	(0.2246)
Gov. Expd. (% of GDP,t-1)	-0.187	-0.1858	0.0809	0.0698	0.0064
	(0.2167)	(0.2057)	(0.6014)	(0.6423)	(0.6208)
Int Reserves (log, t-1)	0.1409*	0.1457*	0.0960*	0.0849	0.0085*
	(0.0544)	(0.0528)	(0.0786)	(0.1396)	(0.0703)
Investments (% of GDP,t-1)	0.1689**	0.1708**	-0.0536	-0.0516	-0.0015
	(0.0465)	(0.0427)	(0.4698)	(0.4758)	(0.8054)
Ext. Debt (% of GDP,t-1)	0.0099	0.0099	-0.0088	-0.0102	-0.0012
	(0.4527)	(0.4385)	(0.4852)	(0.4124)	(0.2787)
UN Voting Aff. US (t-1)	-14.6509	-14.8171	-4.902	-4.3757	-0.2957
	(0.1812)	(0.1624)	(0.4926)	(0.5221)	(0.6326)
Democracy (t-1)	0.2286	0.2531	0.3523**	0.3567**	0.0312**
	(0.2357)	(0.1636)	(0.0173)	(0.0133)	(0.0147)
East Asia & Pacific					0.3351
					(0.2517)
					-0.1412
Europe & Central Asia					

Table 1.3 (continued)

					(0.6316)
Latin America & Caribbean					-0.3453
					(0.1852)
Middle East & South Asia					-1.0945***
					(0.0000)
East Asia & Pacific * China's Aid (log,t-1)					0.0125
					(0.1880)
Europe & Central Asia * China's Aid (log,t-1)					-0.0082
					(0.3260)
Latin America & Caribbean * China's Aid (log,t-1)					0.0184
					(0.1047)
Middle East & South Asia * China's Aid (log,t-1)					-0.0006
					(0.9566)
N	121	121	350	350	350

Notes: The dependent variable measures the average number of prior actions per World Bank project received by a recipient country i in period t, rounded to the closest integer. Marginal effects at the mean value of the variable are reported. Standard errors are clustered by recipient country. p-values are shown in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, *$p < 0.1$.

8.2. Benchmarks

Next, *Model 6* reports the influence of China's aid on benchmarks (non-binding conditions) in 54 aid-recipient countries in Africa, for the period 2006 to 2013.[6] The dependent variable now measures the average number of benchmarks (*Avg. Benchmarks*) received by an African country in a year. Results are shown in Table 1.4. Starting with the coefficient on *Avg. Benchmarks* appear with a positive sign and turned out to be insignificant. It is in line with our hypothesis that China's aid should have no significant impact on the World Bank's benchmarks.

Model 7 disaggregates China's aid into ODA and OOF to check if any of them has a relatively noticeable impact on benchmarks. As can be seen from *Model 7* in Table 1.4, the individual impact of China's ODA and OOF does not have a statistically significant association with benchmarks. Therefore, we cannot reject the null hypothesis that China's aid should have no impact on the World Bank benchmarks. One plausible explanation of this consistently insignificant finding is the fact that benchmarks do not determine the disbursements of the World Bank aid as they are not counted as conditions in the legal documents. They are only the implementation progress markers which are used as a management tool and reference framework to indicate the overall performance of recipient countries in a policy program. As recipient countries are not bound by the number of benchmarks included in an aid agreement, the World Bank cannot use it as a tool to attract recipient countries.

Further, we extend the analysis to include all the recipient countries in the sample (*Model 8*), increasing the number of observations from 62 to 207. The coefficient on *Avg. Benchmarks*, although positive, is barely significant at the ten percent level. As a next step, we disaggregate China's aid into ODA and OOF *(Model 9)*. The coefficient on China's OOF turned out insignificant and that of ODA is only significant at the ten percent level. Overall, the results presented in Table 1.4 indicate that China's aid has no significant impact on the number of benchmarks attached with subsequent World Bank aid projects. However, the small positive coefficients on China's total aid and ODA suggest that the World Bank is attaching more

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6 The data on benchmarks is only available from 2005 to 2012. Comparable number of years are also tested for prior actions and the results remain same. Results are available upon request.

reference frameworks with its aid projects in the form of benchmarks to countries receiving China's aid. This might be because the World Bank is potentially more cautious of tracking the progress and outcome of its aid project in the countries funded by China in order to assure that receiving China's aid is not diverting the recipients' away from the World Bank project goals.

Table 1.4: China's Aid and World Bank Benchmarks, Negative Binominal, 2006-2014

	Africa		World	
	Model 6	Model 7	Model 8	Model 9
China's Aid (log,t-1)	-0.0105		0.0062*	
	(0.3008)		(0.0947)	
China's ODA (log,t-1)		-0.0068		0.0100*
		(0.3725)		(0.0951)
China's OOF (log,t-1)		-0.0028		-0.0032
		(0.6389)		(0.4813)
Avg. Fields	0.0294	0.028	0.0018	0.0028
	(0.5788)	(0.7118)	(0.9211)	(0.8907)
World Bank's Aid (log)	0.002	0.0008	0.0128	0.0142
	(0.8929)	(0.9703)	(0.1566)	(0.1356)
GDP per Capita (log,t-1)	-0.1074	-0.1211	1.0350***	1.2578***
	(0.8008)	(0.8919)	(0.0001)	(0.0000)
GDP Growth (t-1)	0.0365***	0.0539***	0.0154	0.0176
	(0.0001)	(0.0005)	(0.1623)	(0.1580)
CPI Growth (t-1)	1.3313**	2.3137	-0.1533	-0.0122
	(0.0135)	(0.1130)	(0.8529)	(0.9895)
Gov. Expd. (% of GDP,t-1)	-0.0107	-0.0115	-0.0137	-0.0098
	(0.4051)	(0.5851)	(0.2767)	(0.5219)
Reserves (% of GDP,t-1)	-0.0211*	-0.0305*	0.0105*	0.0120*
	(0.0580)	(0.0925)	(0.0732)	(0.0761)
Investments (% of GDP,t-1)	0.0042	0.0069	0.0065	0.0075
	(0.4849)	(0.6149)	(0.4744)	(0.4916)
Ext. Debt (% of GDP,t-1)	-0.0024***	-0.0038***	.000017	-0.0001
	(0.0002)	(0.0005)	(0.9758)	(0.8987)
UN Voting Aff. US (t-1)	-0.8051	-1.8972	-1.8771*	-2.4402**
	(0.6009)	(0.4199)	(0.0577)	(0.0421)
Democracy (t-1)	-0.128	-0.2185	0.0505***	0.0586***
	(0.3634)	(0.2704)	(0.0000)	(0.0000)
N	62	62	207	207

Notes: The dependent variable measures the average number of benchmarks per World Bank project received by a recipient country i in period t, rounded to the closest integer. Marginal effects at the mean value of the variable are reported. Standard errors are clustered by recipient country. p-values are shown in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

8.3. Other Explanatory Variables

Turning to the results of the coefficient on *Avg.Fields*, the marginal effects for the average number of fields that a project covers is positive and significant across all estimated models on prior actions. Consistent with our expectations, the World Bank projects that seek to influence economic activities in several fields are likely to be the ones that come with the most prior actions attached. Specifically, a one percent increase in the average number of fields covered per project resulted in more prior actions ranging between 0.06-0.7. In contrast, average fields did not seem to be an important determinant of benchmarks. The next variable, World Bank's Aid, is found to be positive and significant only on average number of prior actions in Africa. Overall, the results suggest that broader project scope rather than its magnitude is the better determinant of World Bank cumulative conditions and prior actions.

Moving on to the control variables in Matrix X, they appear to be less relevant as they were only occasionally significant at conventional levels. As concerns the surprising positive effect of GDP per capita, GDP growth and democracy on prior actions and benchmarks in some instances, it might suggest that these countries are more committed to the implementation of reforms, received in the form of conditionality, conducive to economic growth and development and the World Bank is operating counter-cyclically in these countries.

9. Conclusion

This study revolves around the debates on the rise of China as a new donor in the international aid market and how the World Bank is adapting its aid-giving practices in response to the increase in the supply of China's aid. Specifically, we have investigated whether the number of conditions associated with the World Bank aid projects is influenced by the additional supply of China's aid.

We attempted to replicate an influential study by Hernandez (2017) on the impact of China's aid on the World Bank's cumulative conditions to African countries, i.e., the World Bank will revise its conditionality downwards if the presence of new donors (specifically, China) creates an increase in the supply of development resources in the recipient country and upwards if it does not. While an accurate replication has proved impossible, the replication attempt has motivated us to extend Hernandez's analysis to disaggregated forms of the World Bank conditionality and China's aid beyond Africa in order to evaluate the generalisability of his findings.

As a first step, we disaggregated the World Bank conditionality into prior actions (binding conditions) and benchmarks (non-binding conditions). Prior actions are legal conditions which countries have to follow in order to receive an aid project whereas benchmarks are only used as reference frameworks. As benchmarks are not determinative of aid disbursements, recipient countries potentially only bargain over the number of prior actions included in an aid project. We find robust evidence that the World Bank delivers aid with significantly fewer prior actions to African countries in receipt of China's aid.

As a next step, we disaggregated China's aid into ODA and OOF. Hernandez has defined China's aid strictly in terms of ODA, although a large proportion of China's aid consists of OOF. Our results indicate that the competition between the World Bank's and China's aid is more relevant for the relatively concessional lending, i.e., ODA. Whereas, no significant impact of China's less concessional forms of aid, i.e., OOF was found on prior actions. This is in line with our expectations that the larger the grant element of China's aid projects, the more the recipient countries will value the transfer and thus the lesser number of prior actions have to be offered by the World Bank in order to attract the recipients.

We then extended Hernandez's analysis to 132 aid-recipient countries across the world in order to evaluate the generalisability of his findings. We do not find a statistically significant association between China's aid and the World Bank's prior actions in recipient countries across the world. It suggests that Hernandez's findings are limited to Africa, which is important given the rising percentage of China's aid received by the region. China's particular interest in Africa might allow the countries in this region to have more financial options, inducing the World Bank to redesign its programs in Africa. Whereas, China's aid has no influence on the World Bank prior actions in other regions. Perhaps, China as well as other donors are less interested in providing aid to other regions and consequently, these countries are turning to the World Bank as a lender of last resort for fulfilling their development and commercial aid-based needs.

With regards to benchmarks, consistent with the expectations, the study finds that China's aid does not have a statistically significant influence on benchmarks. An explanation of this result is the fact that recipient countries do not need to bargain over the number of benchmarks, consequently the World Bank can't use them as a competitive tool to attract recipients.

Overall, our key results (as well as Hernandez's findings) should be interpreted with caution as they are not generalisable to all the countries receiving aid from China. One caveat to our findings is that the framework is not suited to account for the spill over effects of China's aid. We aim to address this issue in future work by investigating how an increase in the supply of China's aid in a country could influence the World Bank's ability to use conditions in other countries. Another promising avenue for future research is to evaluate if the World Bank select aid projects in countries where China is already present and vice versa.

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