

# Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa

## RESEARCH NOTE

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Chinese “aid” is a lightning rod for criticism. Policy-makers, journalists, and public intellectuals claim that Beijing uses its largesse to cement alliances with political leaders, secure access to natural resources, and create exclusive commercial opportunities for Chinese firms—all at the expense of citizens living in developing countries. We argue that much of the controversy about Chinese “aid” stems from a failure to distinguish between China’s Official Development Assistance (ODA) and more commercially oriented sources and types of state financing. Using a new database on China’s official financing commitments to Africa from 2000 to 2013, we find that the allocation of Chinese ODA is driven primarily by foreign policy considerations, while economic interests better explain the distribution of less concessional flows. These results highlight the need for better measures of an increasingly diverse set of non-Western financial activities.

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Western policy-makers and pundits often claim that non-Western donors are less altruistic and “development oriented” than their Western counterparts (Alden 2005; Tull 2006; Lum, Fischer, Gomez-Granger, and Leland 2009; Halper 2010).<sup>1</sup> They charge that non-Western donors, especially China, use their largesse to curry political favor with developing countries, secure unfair commercial advantages for their domestic firms, and support corrupt and

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<sup>1</sup> During a 2012 trip to Africa, then US Secretary of State Hillary Clinton made a thinly veiled criticism of Chinese development finance by arguing for “a model of sustainable partnership that adds value, rather than extracts it” and noted that, unlike other countries, “America will stand up for democracy and universal human rights even when it might be easier to look the other way and keep the resources flowing” (French 2014). Three years later, during his own trip to Africa, US President Barack Obama hastened to mention that China has “been able to funnel an awful lot of money into Africa, basically in exchange for raw materials that are being extracted from Africa” (BBC 2015).

authoritarian regimes that are rich in natural resources (Naim 2007). Yet the few studies that subject these claims to empirical scrutiny arrive at more conditional conclusions. They suggest that non-Western donors are probably no more self-interested than their Western counterparts.<sup>2</sup> Why then does the “rogue donor” narrative persist? Is it even possible to systematically compare the international development spending patterns and motives of Western and non-Western states?

Our answer to the latter question is yes. We argue that an absence of granular data, as well as inadequate attention to different types of official financing, encourage commentators to make strong claims that rest upon weak evidentiary foundations. This skews debates about “new” and “emerging” donors in unproductive ways, particularly in the context of Chinese “aid” to Africa.<sup>3</sup> In this research note, we use a new dataset on Chinese government financing to more accurately describe China’s spending behavior and clarify its intentions. We find important differences between Chinese “aid” and other types of official financial flows from China. By disaggregating Chinese state financing into its constituent parts and separately analyzing these flows, we help correct misperceptions about Chinese behavior and motives.

Of course, the problems of scarcity and mismanagement of development finance data extend well beyond the case of China. While the member states of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) largely comply with a basic set of voluntary reporting norms, many so-called “emerging” or “non-traditional” donors—including Brazil, India, Iran, Qatar, Venezuela, and China—have opted out of the Western-led regime that tracks development finance activities. Consequently, there is a growing chasm between the de facto suppliers of development finance and the international reporting regime designed to track their activities (see Xu and Carey 2014; Muchapondwa, Nielson, Parks, Strange, and Tierney 2016). The methods that we employ in this note to collect and classify data on Chinese development finance can also be used to identify the activities of other non-Western sources of development finance.<sup>4</sup>

To help standardize empirical research on non-Western development financiers and enable comparisons with Western donors and creditors, we employ OECD-DAC standards that distinguish official development assistance (ODA) from other official flows (OOF). ODA includes transactions that (a) are provided by official agencies to developing countries and to multilateral institutions; (b) primarily aim to promote economic development and welfare; and (c) are concessional in nature—that is, they have a grant element of at least 25 percent. OOF are also funded by government agencies but do not qualify as ODA because they are not primarily intended for development in the recipient country or they are not sufficiently concessional. Many non-DAC suppliers of development finance do not comply

with these reporting norms. As such, the absence of common definitions and consistent measurements across DAC and non-DAC donors has led many analysts to draw “apples to oranges” comparisons—or, perhaps more appropriately in the case of China, “apples to dragon fruits” comparisons (Bräutigam 2009; Strange, Dreher, Fuchs, Parks, and Tierney 2017). As Strange et al. (2017) show, mismeasurement of Chinese state financing leads researchers to arrive at wildly different estimates of “Chinese foreign aid,” which makes it difficult for researchers and policy-makers alike to draw meaningful inferences about the nature and scope of Beijing’s development program.<sup>5</sup> We address this problem by categorizing Chinese state financing flows according to existing OECD-DAC definitions and standards.

In doing so, we demonstrate that Chinese ODA and OOF are means to different ends. We hypothesize that since ODA flows are by definition highly concessional, states will use them to buy policy concessions abroad. On the other hand, since less concessional forms of official support are provided on closer-to-market-terms, we expect that these flows will be allocated to advance the economic interests of their suppliers. In order to distinguish between Chinese-financed ODA flows and more market-based forms of state financing for overseas activities (OOF), we developed an open-source data collection technique—a Tracking Underreported Financial Flows (TUFF) methodology—to assemble a first-of-its-kind, project-level dataset on the known universe of China’s official financing activities in Africa from 2000 to 2013 (Strange et al. 2017). Our results from panel regressions support the notion that China uses ODA flows (and grants) mainly to promote its foreign policy goals, while less concessional forms of official financing (and loans) follow China’s economic interests. On balance, it appears that both China and Western donors use these different types of financing to achieve similar objectives, although China provides far less ODA and far more OOF than its Western counterparts. We conclude that China is neither a rogue donor nor a role model; its international development program is more complex and multifaceted than popular debates suggest.

In what follows, we hypothesize that different types of state financing should advance different objectives. We then introduce the data and empirical strategy used to test our hypotheses. After describing our results, the final section explores the broader implications of our findings.

### Beyond “Aid”: Flow-Type Hypotheses on the Allocation of Chinese Development Finance

Scholars largely agree that both donor interests and recipient needs shape the cross-country allocation of aid (for example, Morgenthau 1962; McKinley and Little 1979; Alesina and Dollar 2000; Neumayer 2003b; Kuziemko and Werker 2006; Hoeffler and Outram 2011). By contrast, the literature on market-oriented official financial flows and private commercial flows shows that market size, political stability, rule-based governance, borrower repayment capacity, and expected returns influence lender and investor decisions (Alesina and Dollar 2000; Jensen 2003; Evrensel 2004).

<sup>2</sup> See studies on Arab donors (Neumayer 2003a, 2004), China (Hendrix and Noland 2014, chapter 5; Bader 2015a; Dreher and Fuchs 2015), Turkey (Kavaklı 2013), and a larger set of non-Development Assistance Committee (DAC) donors (Dreher, Nunnenkamp, and Thiele 2011). See also Fuchs and Vadlamannati (2013) on India for an exception.

<sup>3</sup> Evidentiary challenges are not the only reason that certain donors are maligned in the public sphere. As Hirono and Suzuki (2014) suggest, many studies of Chinese and other non-Western aid may be guided by motives other than the pursuit of scientific knowledge.

<sup>4</sup> For example, the Tracking Underreported Financial Flows methodology that we employ here has also been adapted to track the international development finance activities of Qatar and Saudi Arabia (Strange, Parks, Perla, and Desai 2015).

<sup>5</sup> Supplementary File A contains a table with fifteen different published estimates of the amount of Chinese development finance that has been allocated to Africa. These estimates range from less than half a million dollars per year to just under \$18 billion per year.

### *The Role of Foreign Policy Interests*

Numerous quantitative studies support the conclusion that the political interests of Western donors significantly influence their foreign aid allocation decisions (Schraeder, Hook, and Taylor 1998; Kuziemko and Werker 2006; Vreeland and Dreher 2014). Western powers use aid to reward allies, punish enemies, build coalitions, and influence public opinion in recipient countries (Morgenthau 1962; Bueno de Mesquita and Smith 2007; Berman, Shapiro, and Felner 2011). And theory suggests few reasons why one would expect non-Western donors to behave much differently. Indeed, recent quantitative research finds that China uses aid to attract political support at high-level diplomatic events, influence the voting behavior of recipient governments in various international fora, and secure diplomatic recognition for the People's Republic of China at the expense of Taiwan (Dreher and Fuchs 2015).

We hypothesize that a state's ability to "buy" policy concessions from another state will increase with the concessionality of its offer. Put another way, for any given financial commitment, the larger the grant element, the more the recipient government will value the transfer and thus the larger the "favor" a donor can expect in return.<sup>6</sup> Hence, ODA flows (and grants) will generally be employed to achieve foreign policy goals. These broad theoretical expectations are reinforced by the fact that line ministries in charge of Chinese foreign and security policy play a direct role in the allocation of concessional finance. China does not have an independent foreign aid agency; other agencies such as the Ministry of Commerce (MOFCOM) and the Ministry of Foreign Affairs handle its aid activities. Therefore, those governmental actors tasked with securing diplomatic recognition, basing rights, and assembling coalitions within international organizations play a direct role in the allocation of ODA flows. By contrast, and as we will discuss at greater length below, China's so-called policy banks (for example, China Exim Bank and the China Development Bank) are tasked with generating financial returns on their loans, and those actors also happen to play a more central role in the allocation decisions of OOF (Sun 2014, 26–31).<sup>7</sup> Hence, for both theoretical and organizational reasons, we predict that:

**H1:** *China's foreign policy interests guide its allocation of ODA flows (and grants), but play a less prominent role in China's allocation of OOF (and loans).*

### *The Role of Economic Interests*

Whereas we expect foreign policy interests to more heavily influence the cross-country allocation of ODA flows, less concessional forms of official financing should be more closely tied to the economic interests of creditor countries (Moravcsik 1989). Sovereign lending provides an opportunity for capital-rich governments to earn significant economic returns by transacting with capital-poor countries. Further, statistical research demonstrates that sovereign creditors are sensitive to the creditworthiness of their borrowers (Evrensel 2004). The most obvious explanation for why sovereign creditors pay close attention to the loan

<sup>6</sup> Dreher, Nunnenkamp, and Thiele (2008) explain why grants are commonly used to obtain political favors; in their analysis, the favors are votes in the UN General Assembly. For an alternative theory on aid as exchange, see Bueno de Mesquita and Smith (2007).

<sup>7</sup> The finding of Johnston, Morgan, and Wang (2015) that exports to China are not affected by the recognition of the government in Taipei underlines the notion that commercial flows are less likely to be affected by foreign policy issues.

repayment capacity of their borrowers is that they seek repayment—with interest (Eichengreen 1989).

Trade finance is another important type of less concessional official financing (OOF) that merits attention. Official trade finance instruments, such as export seller's credits and export buyer's credits, are explicitly designed to advance national economic objectives (Moravcsik 1989). They help firms from exporting countries to do business in overseas markets and firms from importing countries to buy goods and services from firms in exporting countries. Non-Western sources of official trade finance serve the same purposes; therefore, they too are likely guided by national economic interests (Kobayashi 2008).

We suggest several reasons why China's economic interests might play a central role in its allocation of OOF. As the world's single largest exporter of capital, Beijing is vulnerable to risky economic conditions in the countries receiving its capital flows. As such, China has a compelling interest to invest its foreign exchange reserves in economic sectors and commercial activities that will deliver strong returns, and qualitative research suggests that China Exim Bank and the China Development Bank (two of the largest sources of Chinese OOF) prioritize "bankable" projects and screen loans based on commercial criteria (Bräutigam 2009; Corkin 2011; Yu 2013; Sun 2014).<sup>8</sup> China has also adopted a "going global" strategy to promote national exports and stimulate business for Chinese firms overseas (Bräutigam 2011a), and official financing purportedly facilitates the implementation of this strategy by helping Chinese firms to gain a foothold in new markets where they can export goods and services and secure future contracts (Chen and Orr 2009).<sup>9</sup> Finally, China has a strong interest in securing access to the natural resources that it lacks at home but requires in order to sustain domestic economic growth and stability (Kobayashi 2008).<sup>10</sup> All of these considerations point in the same direction: less concessional and thus more commercial forms of Chinese official financing should follow Chinese economic interests.

<sup>8</sup> Corkin (2011, 72) reports that "the base rate [of a China Exim Bank loan] is London Interbank Offered Rate (Libor), with an additional percentage added according to the country's sovereign credit rating (if it exists), the political situation, and its economic and financial stability." During one of our own interviews with officials from China's Ministry of Commerce, we were told that "China Exim Bank is mostly motivated by profit" (Authors' interview, August 2015). Jansson (2013, 157) echoes this point, noting that while China Exim Bank and China Development Bank "actively support the overseas expansion of the Chinese SOEs [state-owned enterprises], their principal concern is the perceived profitability of the project in question. They need to be confident that their investment will be repaid."

<sup>9</sup> Chinese government loans are "tied" in the sense that borrowers must purchase Chinese goods and services (Huang 2015). This subsidy from Beijing helps Chinese enterprises to compete for market share with foreign firms. According to one study, 85 percent of Chinese firms that performed work for foreign government loan projects between 1995 and 2010 ended up carrying out follow-up projects or new projects in the same countries (Huang 2015).

<sup>10</sup> Many researchers suggest that China's desire for resource security may be a key driver of Chinese aid and other financial flows to developing countries (for example, Mohan and Power 2008; Berthélemy 2011). For example, a 2009 Congressional Research Service study concludes that "China's foreign aid is driven primarily by the need for natural resources" (Lum et al. 2009, 5), and Foster, Butterfield, Chen, and Pushak (2008, 64) conclude that "most Chinese government-funded projects in Sub-Saharan Africa are ultimately aimed at securing a flow of Sub-Saharan Africa's natural resources for export to China." The Chinese government rejects the claim that its aid program is designed to secure access to other countries' natural resources (State Council 2011). However, as we discuss below, part of this discrepancy might reflect disagreements over what is being counted (ODA or OOF). Both Hendrix and Noland (2014, chapter 5) and Dreher and Fuchs (2015) employ quantitative tests showing that China does not target ODA based on natural resource endowments.

**H2:** *China's economic interests guide its allocation of OOF (and loans), but economic interests are less important in the allocation of ODA flows (and grants).*

#### *The Role of Governance and Institutions*

China claims to follow a policy of noninterference in the domestic affairs of sovereign governments, which implies that aid allocation decisions are made without considering the political institutions of recipient countries. Many Western observers consider this approach a convenient rationale for economic engagement with undemocratic, corrupt governments (Kurlantzick 2007, xii), thus prompting the claim that Chinese aid props up rogue regimes and delays much-needed governance reforms.<sup>11</sup> These claims find mixed support among the few quantitative studies that exist (Bermeo 2011; Kersting and Kilby 2014; Dreher and Fuchs 2015; Bader 2015a,b).<sup>12</sup>

As with political and commercial interests, we expect to observe different allocation patterns across more and less concessional forms of official financing based on institutional quality in recipient (borrower) countries. Since OOF is provided on terms that more closely resemble market conditions, the Chinese government and Chinese firms involved in state-sponsored OOF projects presumably have an interest in making sure that loans will actually be paid back and that investments yield attractive returns. Thus, we expect that less concessional forms of Chinese official finance will favor recipient countries with higher levels of institutional quality—a factor that strongly influences repayment rates (Reinhart and Rogoff 2004; Faria and Mauro 2009). On the other hand, consistent with its own official rhetoric but contrary to the popular “rogue aid” hypothesis, we expect China to disregard the quality of institutions in recipient states when allocating ODA.

**H3:** *Countries with higher institutional quality will receive more loans and other less concessional forms of state financing from China, while Chinese grants and ODA flows will be provided independently of recipient institutional quality.*

## Data

### *China's Official Finance to Africa*

China does not systematically publish project-level data or even aggregated bilateral flow data on its official financing activities abroad. We thus rely on AidData's Chinese Official Finance to Africa dataset (version 1.2) introduced by Strange et al. (2017), which includes 2,647 projects in fifty recipient countries in Africa over the 2000–13 period.<sup>13</sup> Given the nature of our hypotheses, we are primarily interested in variation over the cross-section (between recipient countries) rather than over time.

<sup>11</sup> Collier (2007, 86) argues that “[governance] in the bottom billion is already unusually bad, and the Chinese are making it worse, for they are none too sensitive when it comes to matters of governance.” Bräutigam (2009, 21) takes issue with this proposition, arguing instead that “China's aid does not seem to be particularly toxic” and “the Chinese do not seem to make governance worse.”

<sup>12</sup> Doubts that China favors autocracies extend beyond the aid literature. See, for example, de Soysa and Midford (2012) for evidence on arms transfers.

<sup>13</sup> In our analysis, we rely on a subsample of this dataset. We exclude projects coded as “Official Investment” or “Military Aid (without development intent).” We exclude pledges. We exclude projects to any group of countries where no breakdown on the national destination is available. We exclude South Sudan, which became an independent state in 2011. Finally, we exclude 2013 data from our analysis as the numbers for recent years may be lower as a result of limited accumulated media information compared to previous years (Strange et al. 2017).

We cannot measure Chinese ODA in the strict, OECD-defined sense of the term as information on the concessionality and development intent of projects is incomplete. Therefore, we rely on a second-best definition of Chinese “ODA-like” flows, which consists of all grants, technical assistance and scholarships, loans with large grant elements, and debt relief, under the condition that these projects are provided with development intent. Alternatively, “OOF-like” flows include loans and export credits that have little or no grant element or that are not primarily intended to improve economic development or welfare in the recipient country, as well as grants that are not intended for development purposes;<sup>14</sup> 11.5 percent of these projects remain unverified pledges and are thus excluded from the econometric analysis below.<sup>15</sup> We analyze the remaining 2,043 projects that have at least reached commitment status. In doing so, we seek to achieve comparability with official finance commitments as defined by the OECD-DAC.

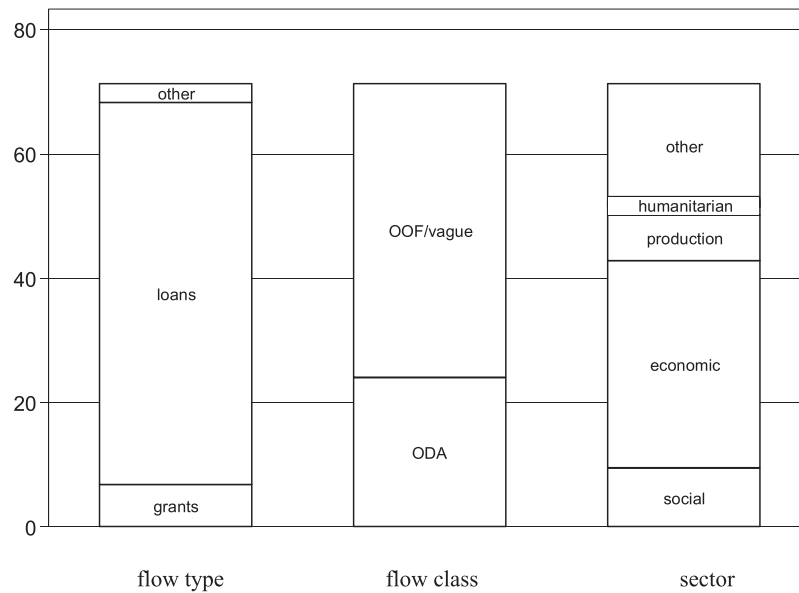
Our dependent variable is the (logged) financial value of projects committed to a recipient country in a given year (in constant 2009 US\$).<sup>16</sup> We start with the full range of China's official finance activities, and then compare the distinctive determinants of ODA-like and OOF-like flows. Finally, we disaggregate China's official finance by flow type into grants and loans.

Figure 1 highlights important features of our data on Chinese official financing to Africa. The first column shows that grants constitute only about a tenth of total Chinese official financing to Africa in financial terms, while loans represent 86 percent of total dollars committed. The distribution of ODA-like and OOF-like financial flows mirrors this pattern. Disaggregating projects by sector also reveals interesting variation: while the social sector includes a large number of projects, indicating an active Chinese presence in education, health, and government infrastructure, the corresponding financial value of these projects is significantly smaller than for projects in transport and energy infrastructure.

<sup>14</sup> For details on the data collection and coding scheme, see Strange et al. (2015) and Muchapondwa et al. (2016). In Table B.1 in Supplementary File B, we show what our data add over official data for one of the few countries for which such data exist (Malawi). Table B.2 provides a table of various coding examples to illustrate nuances specifically with regard to coding flow class. The original source material used to generate these categorizations is not always detailed enough to determine whether a given project qualifies as ODA. As such, we have developed a third residual category (called “Vague Official Finance”) for projects that have insufficient information to make an ODA-like or OOF-like determination. We have done this transparently so that our work can be replicated and so that other analysts can make their own decisions about whether to recode the residual cases or what to include/exclude in any statistical tests. In this paper, we treat the “vague” flows as OOF-like projects. Typically, these records are loans that lack sufficient details (interest rates, grace periods, or maturity dates) to enable ODA or OOF classification, or insufficient information to code the intent of the project (as developmental, commercial, or representational). That being said, the observable attributes of “vague” projects are more similar to OOF projects than ODA projects (e.g., sector, project size, funding institution).

<sup>15</sup> Pledges are defined as verbal, informal agreements while commitments are defined as formal, written, binding contracts (Strange et al. 2017).

<sup>16</sup> This measure comes with the caveat that 41 percent of the projects lack information on their financial value. However, this is less problematic than it might appear since the likelihood that the financial value of a project is reported varies substantially across flow types (Muchapondwa et al. 2016). While the dataset only covers 9 percent of the relatively cheap projects in the category “Scholarships/Training in the Donor Country,” fully 91 percent of the more expensive loan projects have a reported financial value. We also test the robustness of our findings by using the total number of projects committed to a particular recipient country.



**Figure 1.** Financial value of Chinese development projects by flow type, flow class, and sector (in billions of constant 2009 US\$, 2000–12)

#### Explanatory Variables

To determine whether China uses specific types of official finance to pursue its foreign policy objectives (Hypothesis 1), we analyze the voting behavior of recipient countries in the United Nations General Assembly (UNGA). Indicators of UNGA voting similarity are frequently used in the aid allocation literature and beyond to measure political alignment between states (Alesina and Dollar 2000; Kilby 2009, 2011; Vreeland and Dreher 2014).<sup>17</sup> In our baseline model, we use the share of observations in which China and the recipient government show the same voting behavior. More specifically, we use raw data from Strezhnev and Voeten (2012), refined as described in Kilby (2009), to compute a voting similarity measure that ranges between 0 and 1.<sup>18</sup> These data likely include a substantial number of low-salience votes in terms of Chinese foreign policy. Therefore, while we prefer to include all observations instead of arbitrarily restricting the vote set, we test robustness in several ways.<sup>19</sup> We first include only those votes that the US Department of State considers important (so-called “key votes”). We do so because, as Wu, Fu, and Pan (2016, 4) explain, there is “good reason to believe that China will lobby extensively in [the] UNGA on certain issues it deem[s] important.” Votes that the United States considers politically important are likely also significant to other great powers, including China. Second, we focus on votes where China and the United States disagree,

as it is in these cases that aid may be most useful—and consequential. Third, we follow Flores-Macías and Krepes (2013) and Dreher and Yu (2016) and focus exclusively on human rights voting in the UNGA.<sup>20</sup>

As a final proxy for short-term geostrategic interests, we employ temporary membership on the United Nations Security Council (Kuziemko and Werker 2006; Dreher, Sturm, and Vreeland 2009). Vreeland and Dreher (2014) show that temporary members of the UNSC receive substantial increases in aid from Western donors in exactly those two years when they are present on the Council. Vreeland and Dreher (2014) argue that these increases in aid apply only to those members that vote in line with the United States and other Western powers on the Council. Therefore, by the same logic, one would expect China to reduce its ODA (and grants) to temporary members of the UNSC in order to punish countries for aligning with the Western powers.

To test the role of a country’s stance on the One-China policy, we employ several different measures. We first construct a binary indicator variable that takes a value of 1 if a recipient country maintains diplomatic relations with the government in Taiwan rather than (mainland) China (data from Rich 2009, own update).<sup>21</sup> Cheung, de Haan, Qian, and Yu (2014) provide evidence that diplomatic recognition of Taiwan drives countries away from China (on contracted engineering projects). We also employ two additional binary variables: one that measures the presence or absence of an embassy of the recipient country in Beijing, and another that measures the presence or absence of a Chinese embassy

<sup>17</sup>Foot (2014, 1085) provides an extended explanation on “why the UN is a key venue for China to demonstrate its ‘responsible Great Power’ status.” Even if China did not care about UNGA voting per se, its voting reflects, on average, its political alliances, and is thus a valuable proxy for strategic motives in the allocation of foreign aid (Strüver 2016). This argument finds empirical support in Voeten (2000, 213), who shows that China’s voting in the UNGA can be at “least partly explained by their degree of opposition to U.S. hegemony.” China is no outlier in this respect either, as less powerful countries, such as India, also tend to cooperate more frequently with those who vote similarly in the UNGA. Fuchs and Vadlamannati (2013) and Davis, Fuchs and Johnson (Forthcoming) provide both qualitative and quantitative evidence that India’s aid and trade follow UNGA voting patterns.

<sup>18</sup>Abstention and absence are counted as half-agreements with a yes or no vote.

<sup>19</sup>Our approach follows Dreher and Fuchs (2015) and Cheung et al. (2014).

<sup>20</sup>China’s Counselor to its United Nations delegation acknowledges that while China has a “consistent position of opposing country specific resolutions on human rights...the Chinese delegation has always held that countries should seek to resolve their differences in the field of human rights” (Foreign Ministry 2009 as cited in Flores-Macías and Krepes 2013, 358). Flores-Macías and Krepes (2013) suggest that convergence in UNGA voting on human rights implies movement toward China’s preferred position rather than mutual convergence.

<sup>21</sup>This measure, while blunt, has been employed frequently in other recent studies on aid allocation and Chinese foreign policy (for example, Kersting and Kilby 2014; Dreher and Fuchs 2015; Johnston et al. 2015). Therefore, we also include it as a second measure of geopolitical alignment.

in the recipient country (data from Rhamey, Cline, Bodung, Henshaw, James, Kang, Sedziak, Tandon, and Volgy 2013).

We employ three distinct measures to determine whether commercial motivations influence the cross-national distribution of Chinese official finance (Hypothesis 2). As a proxy for China’s trade interests, we include the logged value of China’s existing trade with a particular country (in constant 2009 US\$).<sup>22</sup> Similarly, to account for China’s potential interest in securing access to natural resources, we include a binary variable that is 1 if a country produced oil in 1999 (i.e., the year immediately prior to our sample period). This measure follows the reasoning in Easterly and Levine (2003), who discuss the benefits of using a measure that is exogenous to aid (data from the British Geological Survey 2016). Finally, we use a country’s debt-to-GDP ratio to account for creditworthiness (Abbas, Belhocine, ElGanainy, and Horton 2010). If the probability of repayment is a factor that influences the allocation of official finance, then one would expect to observe a relationship between the receipt of Chinese state financing and the ratio of debt-to-GDP.

To test the potential effects of recipient institutional quality (Hypothesis 3), we employ the polity2 variable from the Polity IV Project (Marshall, Gurr, and Jaggers 2013).<sup>23</sup> This variable is a 21-point index, where the highest value corresponds to a fully institutionalized democracy. We expect this variable to be unrelated to Chinese ODA-like flows to Africa based on Beijing’s principle of noninterference in internal affairs and previous quantitative results (Dreher and Fuchs 2015). We also use the Control of Corruption index from the Worldwide Governance Indicators project, which ranges from -2.5 to 2.5, with higher values representing better governance (Kaufmann, Kraay, and Mastruzzi 2004).

We add several control variables to the model that may influence the allocation of Chinese official financing. To capture the level of need in recipient countries, we use measures of logged average per capita income and logged population size (taken from the World Bank 2016). Apart from need, both of these variables might provide an indication of the “price” that China would need to pay in order to purchase foreign policy compliance from the recipients of its largesse. The foreign policy support of poorer and smaller nations should be cheaper to buy than that of richer and larger countries. As an additional control variable, we include the logged total number of people affected by disasters in the recipient country (EM-DAT 2014). We expect Chinese ODA flows in general—and humanitarian assistance in particular—to increase with the number of disaster victims. We also add a binary indicator that takes a value of 1 if English is the official language (Mayer and Zignago 2011). We do so because AidData’s Chinese Official Finance to Africa dataset (version 1.2) draws disproportionately upon Chinese- and English-language sources, and the dataset may underrepresent China’s development finance activities in states where other languages are more prominent in media outlets, business relations, and politics. Finally, we control for potential geo-strategic competition among donors by using the residuals of an ordinary least squares (OLS) regression of logged net official finance received from all DAC donors (in constant 2009 US\$) on all

other explanatory variables (see Dreher, Nunnenkamp, Öhler, and Weisser 2012 for a similar approach).

For most of the time-varying explanatory variables, we lag by one year to mitigate endogeneity concerns. However, when measuring the total number of people affected by natural disasters, we do not lag the variable as disasters are largely exogenous to aid and disaster relief is disbursed quickly. The binary oil indicator refers to the year 1999, prior to the start of our time series. In Supplementary File C, Table C.1 provides an overview on all variables used, their definitions and sources, and Table C.2 provides the corresponding descriptive statistics.

### Econometric Analysis

We estimate the following regression equation:

$$aid_{it} = \beta_0 + \beta_1 political_{it-1} + \beta_2 economic_{it-1} + \beta_3 institutional_{it-1} + \beta_4 control_{it-1} + \tau_t + \varepsilon_{it},$$

where  $aid_{it}$  measures China’s development finance to country  $i$  in year  $t$ ;  $political_{it-1}$  is a vector of the three foreign policy variables introduced above (H1);  $economic_{it-1}$  captures the three economic variables (H2);  $institutional_{it-1}$  stands for the two institutional quality variables (H3);  $control_{it-1}$  denotes the set of five control variables;  $\tau_t$  stands for year-fixed effects; and  $\varepsilon_{it}$  is a stochastic error term.

We first run pooled OLS regressions to exploit variation across recipient countries. To test robustness, we add country fixed effects to the regression equation identified above. However, while we report results from these fixed effects regressions for comparison, we do not expect our explanatory variables to hold much power in explaining year-to-year changes in aid; rather, we stress the importance of retaining the between-recipient country variation for testing the observable implications of our theory.

### Results

Table 1 shows our main results. Column 1 seeks to explain the cross-country allocation of total Chinese official financing. As Table 1 shows, few variables are significant at conventional levels, arguably because the model pools the differential determinants of ODA and OOF, resulting in effects that are insignificant, on average. The exceptions are Taiwan recognition and temporary membership in the UNSC. Specifically, we find that countries that do not recognize Taiwan receive 2,763 percent more Chinese official finance per year, on average. This huge effect is not surprising given that diplomatic recognition of Taiwan typically makes countries ineligible for receipt of Chinese aid (see also Kersting and Kilby 2014).<sup>24</sup> As expected, at the 10 percent level of significance, countries that do not serve on the UNSC receive 794 percent more in aid compared to temporary members. Given that temporary membership has been shown to attract surges in aid from Western donors (Vreeland and Dreher 2014), we expect China to punish the recipients of Western aid with reductions in its own aid due to their provision of foreign policy favors to the West. Alternatively, one might think that China perceives recipients of

<sup>22</sup>Data were obtained from the United Nations Comtrade database (<http://wits.worldbank.org/wits/>, accessed May 2, 2014).

<sup>23</sup>Svensson (1999), Kosack (2003), and Montinola (2010) provide evidence that democracies put aid resources to better use than nondemocracies. However, others disagree. See Doucouliagos (Forthcoming) for a recent survey.

<sup>24</sup>At the same time, there are exceptions. In our dataset, for example, China supported a bridge construction in Senegal in 2004, that is, before the West African country ceased diplomatic relations with Taiwan. See also the historic examples listed in Dreher and Fuchs (2015). When we replace this variable with a binary variable indicating the existence of a Chinese embassy in the recipient country or of an embassy of the recipient country in Beijing, results are similar. See Tables D.1a and D.1b in Supplementary File D.

**Table 1.** Allocation of China's development finance (financial value, 2000–12, OLS)

	(1) <i>Total OF (log amount)</i>	(2) <i>ODA (log amount)</i>	(3) <i>OOF/vague (log amount)</i>	(4) <i>Grants (log amount)</i>	(5) <i>Loans (log amount)</i>
UN voting with China	4.068 (0.235)	4.958 (0.123)	4.371 (0.139)	8.643*** (0.004)	4.332 (0.210)
UNSC member	-2.553* (0.067)	-3.000*** (0.007)	-0.810 (0.540)	-3.919*** (0.000)	-0.971 (0.469)
Taiwan recognition	-9.797*** (0.000)	-8.836*** (0.000)	-3.912*** (0.000)	-7.302*** (0.000)	-4.956*** (0.000)
Trade with China (log)	0.612 (0.128)	0.603 (0.120)	0.688* (0.014)	0.293 (0.371)	0.606 (0.141)
Oil dummy	2.109 (0.219)	-0.417 (0.810)	3.610*** (0.007)	1.044 (0.423)	2.598 (0.152)
Debt/GDP	-0.004 (0.542)	-0.004 (0.572)	-0.017*** (0.000)	0.003 (0.612)	-0.018*** (0.010)
Polity	0.084 (0.408)	0.077 (0.427)	0.028 (0.690)	0.101 (0.231)	0.023 (0.815)
Control of Corruption	-1.142 (0.215)	-0.261 (0.757)	-2.375*** (0.008)	-1.282 (0.133)	-1.331 (0.195)
GDP per capita (log)	-2.385*** (0.007)	-1.876** (0.029)	-2.318*** (0.001)	-1.773** (0.014)	-1.667 (0.132)
Population (log)	-0.621 (0.258)	-0.319 (0.535)	-0.597 (0.153)	-0.191 (0.693)	-0.583 (0.379)
Affected from disasters (log)	0.029 (0.669)	0.013 (0.842)	0.023 (0.728)	0.048 (0.451)	-0.015 (0.857)
English language	3.866*** (0.001)	3.927*** (0.001)	3.076*** (0.000)	3.416*** (0.002)	3.544*** (0.000)
DAC OF (log, residuals)	0.535*** (0.005)	0.465** (0.045)	0.285** (0.048)	0.388** (0.047)	0.316** (0.043)
Country fixed effects	No	No	No	No	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.28	0.27	0.20	0.27	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: *p* values in parentheses; \* (\*\*, \*\*\*) significant at the 10 (5, 1) percent level. OF: Official Finance; ODA: Official Development Assistance; OOF: Other Official Flows

large amounts of Western aid as less needy—or requests for aid decline—so that it provides less aid. Note, however, that we control for those parts of Western aid not driven by the covariates in our model, which rules out this explanation. We thus interpret our results as evidence of geostrategic motivations for aid provision. We further test this idea by interacting temporary membership in the UNSC with UNGA voting with China and find a strong and significant negative effect of this interaction (see Table D.2 in Supplementary File D). We find that only countries that have befriended China, as measured by their voting in the UNGA, get punished for being friendlier with the West, as indicated by their UNSC membership (see also Figure D.1 in Supplementary File D).

Thus, before unpacking the black box of Chinese official financing into different types of financial flows, it is important to note that our aggregate results on the drivers of “Chinese aid” are generally consistent with conventional wisdom that foreign policy interests guide Beijing’s “aid” flows. Our results are not consistent with the idea that Chinese aid favors corrupt or authoritarian regimes or Chinese commercial interests. However, this picture changes when we focus on the number of Chinese aid projects rather than aid amounts as the dependent variable: the total number of projects increases with more trade with China and more corruption at the 5 percent level of significance (see Table D.3 in Supplementary File D). Specifically, increasing logged

trade with China by one standard deviation increases the annual number of Chinese development projects by 0.83; a one-point increase on the Control of Corruption index (on the -2.5 to +2.5 scale) reduces the number of development projects from China by almost one. When these results are considered in conjunction with our results for Chinese ODA and grants (presented below), it becomes easier to understand how the conventional wisdom about Chinese “aid” has taken hold.

We now turn to a set of hypotheses that sheds light on the question of whether and to what extent these aggregate results are driven by more or less concessional flows of official financing. Columns 2 and 3 of Table 1 split official financing into commitments of ODA-like and OOF-like flows; columns 4 and 5 compare grant commitments to loan commitments. The results broadly corroborate our hypotheses, but to varying degrees. First, with respect to foreign policy interests (H1), there is a statistically significant relationship between the receipt of highly concessional flows—measured in terms of the aggregate financial value of grants—and voting in line with China in the UN General Assembly.<sup>25</sup> An increase in voting similarity by 0.1 increases grant funding by

<sup>25</sup> Our results on UNGA voting are robust to focusing on “key votes” only, and to using those votes where China and the United States disagree (see Tables D.4–D.5 in Supplementary File D). They are more mixed when focusing on votes over human rights, where results for grants, but not OOF, are in line with our hypothesis (Table D.6).

51 percent. We also find substantial and significant reductions in Chinese ODA and grants to temporary members of the UNSC (by 95 percent and 98 percent, respectively), indicating that geostrategic competition with Western donors is relevant for ODA and grants but not for OOF and loans. When we compare the coefficients across models, we find that the effect of UNSC membership is quantitatively larger for grants than loans (but find no significant difference between ODA and OOF).

Additionally, we find almost universal support across models for the notion that China provides less official financing to African states that recognize Taiwan.<sup>26</sup> The coefficient on the Taiwan recognition dummy is negative and statistically significant at the 1 percent level for all measures of Chinese ODA-like and OOF-like flows. In line with our expectations, the respective coefficients are much larger for ODA-like flows and grants than for OOF-like flows and loans, with the coefficients for ODA and OOF being significantly different from each other at the 1 percent level.<sup>27</sup> Taken together, the results provide strong support for the hypothesis that ODA-like flows and grants are guided more by foreign policy interests than other types of official financing.<sup>28</sup>

Second, we find support for our hypothesis that less concessional forms of official finance are influenced to a larger degree by economic considerations (H2). Commitments of OOF-like financing are significantly and positively correlated with trade, while this is not true for ODA-like flows.<sup>29</sup> Similarly, oil-producing countries receive more OOF, but not more ODA. Quantitatively, a 1 percent increase in trade with China increases OOF by 0.7 percent.<sup>30</sup> Oil producers receive 3,597 percent more OOF than non-oil producers. We find further support for Hypothesis 2 when measuring economic interests according to a recipient country's creditworthiness. The negative and statistically significant coefficient of indebtedness on OOF-like flows and loans suggests that China prefers to allocate less concessional types of official financing to more creditworthy states.<sup>31</sup> Quantitatively, an increase in the debt-to-GDP ratio by one percentage point reduces OOF funding by 1.7 percent and loans by 1.8 percent. Also, as expected, no such significant re-

lationship exists for ODA-like flows or grants.<sup>32</sup> The coefficients on debt-to-GDP and oil presence are significantly different between ODA and OOF at conventional levels; those for trade, however, are not. Taken together, these results demonstrate that Chinese economic motivations play a larger role in the allocation of OOF-like flows but less so—if at all—for ODA-like flows, in line with Hypothesis 2.

Third, we find no evidence that China's ODA to Africa is tied to domestic political institutions in recipient (borrower) countries. The coefficients on both the Polity variable and Control of Corruption do not reach statistical significance at conventional levels in the ODA regression. The same finding applies to the allocation of Chinese grants.<sup>33</sup> This outcome provides partial evidence in support of Hypothesis 3 and is consistent with China's principle of noninterference in the internal affairs of partner countries. With respect to the allocation of Chinese OOF-like flows, the picture is more nuanced. While we also find that OOF-like flows are allocated independent of the level of democracy in recipient countries, the highly significant negative coefficient on Control of Corruption indicates that these less concessional flows are more likely to go to countries with higher levels of corruption. This difference between the coefficient on Chinese ODA and Chinese OOF is statistically significant. One potential explanation for this finding is that corruption "greases the wheels" of commerce (for example, [Dutt and Traca 2010](#), 843), facilitating more profit-oriented financial transactions between China and African partner countries. Another plausible interpretation is that China is better positioned than Western countries to transact with poorly governed countries because China employs financial modalities, such as commodity-backed loans, that reduce the risks of financial misappropriation, loan repayment delinquency, and default. Such modalities help to mitigate the commitment problems faced by countries with weak institutions ([Yarbrough and Yarbrough 2014](#)). Chinese loans are typically used to pay Chinese contractors for work performed in counterpart countries, thereby enabling Beijing to retain more fiduciary oversight and indirectly impose restraint on its borrowers ([Bräutigam 2011b](#)). A final possibility is that the relatively short time period of our study (2000–12) masks changes in Chinese resource allocation practices over time. In her analysis of investments in the energy sector, [Moreira \(2013\)](#) suggests that Chinese state-backed oil companies have learned to mitigate political risk after suffering losses due to political instability, corruption, and expropriation. She also suggests that the year 2009 may have represented a turning point in China's political risk management efforts, which if true might have resource allocation implications. However, since our time series ends in 2012, this is a possibility that future research can explore.

In any case, this finding is inconsistent with our expectation that more Chinese OOF would flow to less corrupt settings. Thus, while we only find partial evidence consistent with Hypothesis 3, our findings refute the popular claim that Chinese "aid" is focused on countries with poor governance; instead, it is OOF that flows to poorly governed countries.

<sup>26</sup> None of the African "Taiwan recognizers" in the 2000–11 period—Burkina Faso, the Gambia, São Tomé and Príncipe, and Swaziland—received official financing from China during that period. African states that have shifted their positions vis-à-vis the One-China policy have witnessed major changes in inflows of official finance from China. For example, Chad received no Chinese official finance from 2000 to 2005 and only received its first inflows after China and Chad re-established diplomatic relations on August 5, 2006.

<sup>27</sup> We run our models as seemingly unrelated regressions and use a Wald test to test for statistically significant differences. Our results are similar if we replace the Taiwan recognition dummy with a binary variable indicating the existence of a Chinese embassy in the recipient country or of an embassy of the recipient country in Beijing (see again Tables D.1a and D.1b in Supplementary File D).

<sup>28</sup> We also find that, while short-term political alliances—proxied by voting behavior in the UNGA and temporary membership on the UNSC—only affect highly concessional Chinese flows, recipient country respect for the "One-China policy" is much more important for securing concessional resources than for attracting Chinese OOF and loans.

<sup>29</sup> We tested whether exports from China (recipient imports) are driving the relationship between Chinese OOF-like commitments and commercial interests, but found no evidence for this. It seems instead that the trade finding is primarily driven by Chinese imports (results available on request).

<sup>30</sup> We do not observe the same differential results across grants and loans; in fact, we find the opposite pattern, and our results are not robust when we use a dependent variable that measures total project numbers, as opposed to dollars (see again Table D.3 in Supplementary File D).

<sup>31</sup> This finding is consistent with [Huang's \(2015, 17\)](#) claim that "recipient countries' political stability and good credit standing are emphasized" in the allocation of Chinese government loans.

<sup>32</sup> This finding is also consistent with our own interview evidence. One official from the Foreign Aid Department of the Chinese Ministry of Commerce asserted that "economic concerns are not considered at all" in the allocation of Chinese grants and interest-free loans (Authors' interview, August 2015).

<sup>33</sup> These results for democracy are overall robust to a number of tests that we perform in Supplementary File D. In some regressions, ODA and grants do increase with democracy, however (for example, Table D.1a). While few of our regressions support such a pattern, this clearly hints at the absence of a negative relation between concessional financing and democracy, as would be indicated by the "rogue aid" hypothesis.



These findings help explain why policy-makers, journalists, and public intellectuals perceive Chinese “aid” as flowing to more corrupt countries. In fact, it is not aid (ODA) that flows to such countries but rather OOF, which is not aid as defined by international standards or by AidData’s TUFF-based coding scheme.

Turning to our control variables, we find that Chinese ODA to Africa is strongly oriented toward poorer countries. Beijing either responds to humanitarian and socioeconomic needs when making ODA allocation decisions, or it believes that the governments of poor countries are easier to influence with aid. However, unlike the allocation behavior of Western donors, we do not find that more populous recipient countries receive systematically more Chinese official financing.<sup>34</sup> Additionally, all regressions show a positive and statistically significant coefficient on the dummy variable for English-speaking countries, which is consistent with our expectation that AidData’s open-source data collection methodology (TUFF) is more likely to reveal Chinese official financing in English-speaking countries than in non-English-speaking ones.<sup>35</sup> While we do not observe a significant relationship with the number of disaster victims, there is some evidence that Chinese ODA and OOF increase with the size of Western development assistance. Given that we have netted out the influence of the control variables on these Western flows, we interpret this latter result as evidence of competition between China and the West.

To increase our confidence in the main results, we conduct a number of additional analyses. First, we include country fixed effects for comparison (see Table D.7 in Supplementary File D). Importantly, while the inclusion of country fixed effects leads to fewer significant findings, our core conclusions still hold. We again find that Chinese ODA and grant commitments are reduced if countries recognize Taiwan or are temporary members of the UNSC. Also, Chinese grants remain significantly correlated with UNGA voting alignment vis-à-vis China. In line with expectations, none of the foreign policy variables are significant in the OOF and loan regressions. These results provide further evidence in favor of our first hypothesis: highly concessional flows follow foreign policy goals. Further, Chinese loan commitments appear to decrease as more individuals in a recipient country are impacted by natural disasters. This finding suggests that these less concessional and more commercially oriented flows are likely sensitive to risks that could impinge upon profitability.<sup>36</sup> Finally, and consistent with our main results and with Hypothesis 3, we find that Chinese ODA is provided without respect to institutional quality in recipient countries. Taken together, these results are generally in line with our hypotheses, but as expected they are substantially weaker when compared to our results in Table 1.

Second, we compare our results to financial flows from the DAC countries (data from OECD 2016).<sup>37</sup> Table D.8 in Supplementary File D shows results where we replicate

<sup>34</sup> We also find some evidence that more populous countries receive fewer Chinese projects, which is consistent with findings by Dreher and Fuchs (2015) using different data sources.

<sup>35</sup> The relative ease of communication between Chinese officials, aid workers, and their African counterparts in English-speaking environments might produce the same result.

<sup>36</sup> This is in line with evidence in Gassebner, Keck, and Teh (2010) of a trade-deteriorating effect of natural disasters.

<sup>37</sup> Since bilateral data on OOF commitments from OECD-DAC donors are unavailable, we use data on OOF disbursements in these comparative tests. While not itself an “apples to apples” comparison, previous research indicates that the bulk of ODA commitments are disbursed within two years in the 2002–10 period (Hudson 2013), and we have no reason to assume a different pattern for OOF.

Table 1 with DAC data but replace (a) our measure of *UN voting with China* with a measure of average voting alignment with the five major DAC donors (the so-called G-5) on human rights;<sup>38</sup> (b) our measure of *trade with China* with a measure of (logged) trade with all DAC donor countries; and (c) remove our measure of Taiwan recognition for obvious reasons. The results show that countries voting in line with the G-5 receive more official finance from the DAC, on average (column 1). We find analogous results for ODA (column 2), but not for OOF (column 3). DAC OOF increases with trade, while more concessional flows are not affected by commercial motives. Overall, DAC flows follow similar patterns as flows from China when it comes to donors’ foreign policy and commercial interests. However, less corrupt countries receive more ODA from DAC countries, which is in line with the stated policies of many Western donors to reward countries with good institutions. This finding is not surprising since it is a long-standing result in the political economy literature, but as discussed above, this result stands in stark contrast to the results we see for Chinese OOF and Chinese loans.

Third, we make use of a number of alternative variables to test Hypothesis 1 (see results in Tables D.9–D.11 in Supplementary File D). We (a) replace our measure of UN voting alignment with China with a measure of voting alignment with the United States; (b) add a categorical variable that takes a value of 2 if a country expressed strong support for China following its 2008 crackdown on unrest in Tibetan areas, 1 in the case of moderate support, and 0 otherwise (Kastner 2016); and (c) add a binary “right wing government” indicator that takes a value of 1 if the recipient government is coded as conservative, Christian democratic, or right wing, and 0 otherwise (data from Beck, Clarke, Groff, Keefer, and Walsh 2001). Our findings broadly comport with expectations. We observe a significant negative association between voting alignment with the United States and the provision of Chinese grants but not Chinese loans. Interestingly, we also find that larger amounts of Chinese OOF and more Chinese lending goes to countries with right wing governments, which arguably provide more market-friendly environments, on average (Eden, Kraay, and Qian 2012). However, we do not find a link between Chinese flows and a country’s stance toward the Tibetan unrest, but this result may reflect data limitations as we are only observing other governments’ positions on a single issue in a single year (2008).

Finally, an exploration of the sectoral allocation of Chinese official flows aligns with our broader argument that different flows are means to different strategic ends (see Supplementary File E for details). For instance, we find that only Chinese aid to social sectors, such as the construction of hospitals, schools, and government buildings, increases with higher voting alignment with China in the UN General Assembly. In contrast, Chinese financing for projects in economic and production sectors decreases as recipient debt increases.

## Conclusions

Despite a burgeoning literature on Chinese economic statecraft (see Drezner 2009; Fordham and Kleinberg 2011;

Again, for reasons of data availability, we cannot compare grants and loans in a meaningful way and thus exclude these regressions from Table D.8.

<sup>38</sup> We focus on human rights as these are of particular importance to the G5, in line with the recent literature (for example, Dreher and Yu 2016). When we replace voting on human rights resolutions with votes on all resolutions, the coefficient is not significant at conventional levels in any regression.

Flores-Macías and Kreps 2013; Fuchs and Klann 2013; Liao and McDowell 2015; Kastner 2016; Norris 2016), data scarcity and conceptual confusion continue to hinder systematic empirical analysis of the nature, distribution, and effects of official development finance from China and other non-Western sources. This note addresses these problems by decomposing Chinese “aid” into different categories. We hypothesized that foreign policy goals largely drive Chinese ODA, while economic considerations guide Chinese OOF. We also hypothesized that China allocates its ODA independently of the regime type and institutional quality of recipient countries.

To test these predictions, we examined relationships between Chinese development finance committed to African countries from 2000 to 2012 and a range of political and economic variables. Our results suggest that highly concessional flows are closely linked to foreign policy interests, as measured by China’s voting alignment with African countries in the UN General Assembly and recipient country positions vis-à-vis the One-China policy. Contrary to the popular “rogue donor” narrative found in the media and the US policy community, we did not find support for claims that China allocates its aid, in the strictest sense of the term (ODA), for the purpose of natural resource acquisition. Nor does Chinese ODA seem to take into account recipient-country institutions; at least on the African continent, Chinese ODA seems not to flow disproportionately to corrupt or authoritarian regimes. We also show that Chinese ODA flows are strongly oriented toward poorer countries, which suggests either that Beijing considers recipient need when allocating aid or that it sees governments of countries with limited means as easier to influence with aid.<sup>39</sup> By contrast, less concessional and more commercially oriented forms of Chinese official financing (OOF) appear to be driven by bilateral trade ties and natural resource endowments in recipient countries—a motivation that many incorrectly associate with Chinese “aid.”

Without more granular data and a broader commitment to categorizing Chinese state financing in ways that enable “apples to apples” comparisons with Western donors, politicians, journalists, policy analysts, and scholars will continue to conflate Chinese aid with less concessional and more commercially oriented forms of Chinese state financing. They will thus draw incorrect inferences about its allocation and effects. This problem is symptomatic of a broader challenge: non-Western states provide a large and growing proportion of global development finance, yet many of these financiers are either unwilling or unable to provide detailed information about their overseas development activities. As such, the international reporting regime for development finance faces a crisis of relevance and legitimacy. We urgently need new methods of collecting data and cross-walking financial flows from DAC and non-DAC sources to common conceptual categories.

This note, along with various other efforts to apply AidData’s TUFF methodology, represents one way to address this problem (Strange et al. 2017); however, we need more efforts to track and assess the increasingly diverse and consequential activities of non-DAC suppliers of development finance. For example, in order to test the generalizability of the findings in this paper, scholars will need time-series, project-level data on Chinese development finance in other

regions of the world—as well as comparable data for other non-DAC donors and creditors.<sup>40</sup>

We designed this note to demonstrate the utility of a new data collection method and to answer a narrow, but important, question about the cross-national allocation of Chinese development finance in Africa. The types of data and methods introduced in this paper will be useful in addressing at least three kinds of questions going forward. First, how can we explain the subnational allocation of aid from emerging donors? Since many emerging donors have chosen not to support OECD-DAC norms but have instead favored “non-interference” and “South-South cooperation” principles, recipients may enjoy more discretion over where development projects from such donors are sited and who benefits from these projects within developing countries (Dreher, Fuchs, Hodler, Parks, Raschky, and Tierney 2016; Isaksson and Kotsadam 2016; Brazys, Elkin, and Kelly 2017). Understanding these outcomes and political dynamics should be a priority for those who study political economy and comparative politics, but it may also interest Western and non-Western policy-makers.

Second, how do the motivations and behaviors of non-Western donors and creditors affect the foreign policies of Western states and the operations of existing suppliers of international development finance? Competition may cause “traditional” donors and creditors to alter their spending patterns (Kilama 2016), limit the conditionality provisions within their aid projects (Hernandez 2017), or change the way that the OECD measures and counts development finance flows (Kharas and Rogerson 2016; OECD 2016). These phenomena suggest a complementary research agenda for international relations scholarship on China traditionally focused on the inverse question of how (if at all) foreign actors and institutions will shape China’s foreign policy behavior (Jacobson and Oksenberg 1990; Johnston 2008).

But China’s central role in the establishment of new multilateral institutions, such as the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank, will soon flip this question on its head. Therefore, scholars need to study how multilateral institutions created at Beijing’s behest influence the behavior of Western states, as well as how Beijing influences the hitherto Western-led international development regime. A potentially larger role for China in setting the international development agenda also raises potentially important questions about hierarchy in international relations. Despite China’s longstanding rhetorical commitment to noninterference, hierarchy has long been an important principle in its outward relations—for example, through its (controversial) tributary system of trade and diplomacy (Kang 2010; Perdue 2015). Will changes in network ties between China, recipients of its largesse, and other donors and creditors introduce a new set of hierarchical relationships between states and international organizations (IOs) (Nexon and Wright 2007; Lake 2009)? What are the potential consequences of these relationships for the distribution of democratic and authoritarian norms in the developing world (Cooley 2015)?

Third, what are the effects of emerging donors on political, social, economic, and environmental outcomes in developing countries? These questions can be addressed in

<sup>39</sup> Analyzing aid targeting at the subnational level, Dreher et al. (2016) find that Chinese aid flows disproportionately to the birth regions of African leaders and not necessarily to the areas of greatest need within countries.

<sup>40</sup> In October 2017, AidData released a dataset of Chinese official financing activities that extends the geographical and temporal scope of the dataset introduced in this paper (Dreher, Fuchs, Parks, Strange, and Tierney 2017). The new dataset cover 5 major regions of the world and a longer period of time (2000–2014).

a cross-national setting (for example, Strange et al. 2017; Tseng and Krog 2017), or one can use subnationally georeferenced project and outcome data to identify the more localized effects of these expenditures on economic development (Dreher et al. 2016), environmental degradation (BenYishay, Parks, Runfola, and Trichler 2016), public health (Dolan 2017), local corruption (Isaksson and Kotadam 2016; Brazys et al. 2017), and the perceived legitimacy of the state (Blair and Roessler 2016). These questions about the subnational effects of non-Western financial flows are of particular interest to development practitioners and policy-makers, but studies that tackle these questions require highly disaggregated data on the geographical scope and timing of international development project interventions as well as the ability to measure outcomes of interest and at similar spatial and temporal scales.

The fact that neither international institutions with formal monitoring responsibilities (for example, the OECD-DAC) nor scholars seem to be able to keep pace with the rapid changes in the global development finance regime has far-reaching implications for the amount, diversity, and utility of knowledge that social scientists will be able to generate in the future. We have good reasons to believe that the structural changes in the international development finance market will substantially impact political, social, economic, and environmental outcomes in developing countries and perhaps even reshape the foundations of international order (Woods 2008; Kersting and Kilby 2014; Strange et al. 2017). However, many of the conceptual categories and much of the evidence that we have at our disposal to understand these changes and their consequences are no longer fit for purpose. This note describes a data collection, categorization, and analysis effort that represents one step forward on this front.

### Supplementary Information

Supplementary information is available at <http://aiddata.org/replication-datasets> and at the *International Studies Quarterly* data archive.

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