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

Axel Dreher, Andreas Fuchs, Bradley Parks,
Austin M. Strange, and Michael J. Tierney

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AXEL DREHER, Heidelberg University

ANDREAS FUCHS, Heidelberg University

BRADLEY PARKS, College of William & Mary

AUSTIN M. STRANGE, Harvard University

MICHAEL J. TIERNEY, College of William & Mary

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Abstract. Chinese “aid” is a lightning rod for criticism. Policymakers, journalists, and public intellectuals claim that Beijing is using 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 2000-2013, we find the allocation of Chinese ODA to be 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.

Key Words: Development Finance, Foreign Aid, Non-DAC Donors, China, Tracking Underreported Financial Flows

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1. Introduction

Western policymakers and pundits often claim that non-Western donors are less altruistic and “development-oriented” than their Western counterparts (Alden 2005; Tull 2006; Lum et al. 2009; Halper 2010).¹ 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 authoritarian regimes that are rich in natural resources (Naím 2007). Yet the few studies that subject these claims to empirical scrutiny arrive at more conditional conclusions, and suggest that non-Western donors are probably no more self-interested than their Western counterparts.² Why then does the “rogue donor” narrative persist? Is it even possible to systematically compare the international development spending patterns and motivations of Western and non-Western states?

Our answer to the latter question is yes. We argue that the absence of granular data and inadequate attention to different types of official financing has encouraged commentators to make strong claims that rest upon weak evidentiary foundations, thereby skewing debates about “new” and “emerging” donors in unproductive ways.³ This problem has proven to be particularly acute in scholarly and policy discussions around China’s “aid” to Africa. In this paper, we use a new dataset on Chinese government financing to Africa to more accurately describe China’s spending behavior and clarify its intentions. We argue that there are 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 clarify misperceptions about the behavior and motivations of China that are aggravated by informational scarcity, conceptual fuzziness, and unsystematic measurement.

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)

¹ 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, U.S. 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).

² See studies on Arab donors (Neumayer 2003a, 2004), China (Hendrix and Noland 2014: ch. 5; Dreher and Fuchs 2015), Turkey (Kavaklı 2013), and a larger set of non-DAC donors (Dreher et al. 2011). See also Fuchs and Vadlamannati (2013) on India for an exception.

³ We do not argue that evidentiary challenges are 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.

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 international regime put in place by Western governments to track 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 et al. 2016). The methods that we employ in this paper 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.⁴

To help standardize empirical research on the behaviors and motivations of 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—i.e., 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 et al. 2017). As Strange et al. (2017) show, mismeasurement of Chinese state financing has led researchers to arrive at wildly different estimates of “Chinese foreign aid,” making it difficult for researchers and policy makers alike to draw meaningful inferences about the nature and scope of Beijing’s development program.⁵ 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

⁴ For example, the Tracking Underreported Financial Flows (TUFF) methodology that we employ here has also been adapted to track the international development finance activities of Qatar and Saudi Arabia (Strange et al. 2015).

⁵ Appendix A contains a table with 15 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.

support are provided on closer-to-market-terms, we expect that these flows will typically 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 (i.e., OOF), we have 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 are consistent with the notion that ODA flows (and grants) are mainly used to promote Chinese foreign policy goals, while less concessional forms of official financing (and loans) follow China’s economic interests. On balance, it appears that both Chinese 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. China is neither a rogue donor nor a role model; its international development program is more complex and multi-faceted 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.

2. 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 (e.g., 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).

The role of foreign policy interests

Numerous empirical studies support the conclusion that the political interests of Western donors significantly influence their foreign aid allocation decisions (Schraeder et al. 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 et al. 2011). And theory suggests few reasons why

one would expect non-Western donors to behave much differently. Indeed, recent empirical research finds that Chinese aid is used 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.⁶ 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 (i.e., 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 allocation decisions of OOF (Sun 2014).⁷ Hence, for both theoretical and organizational reasons, we predict that:

Hypothesis 1: 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 foreign policy interests are expected 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

⁶ Dreher et al. (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).

⁷ The finding of Johnston et al. (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.

an opportunity for capital-rich governments to earn significant economic returns by transacting with capital-poor countries, and empirical 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 repayment capacity of their borrowers is that they want to be repaid—with interest (Eichengreen 1989).

Trade finance is another important type of less concessional official financing (e.g., 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 are used for the same purposes; therefore, they too are likely guided by national economic interests (Kobayashi 2008).

There are also several reasons why China's economic interests might play a central role in its allocation of OOF. China is the world's single largest exporter of capital, making Beijing 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).⁸ 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).⁹ 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

⁸ Corkin (2011: 72) reports that "[t]he 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."

⁹ Chinese government loans are "tied" in the sense that borrowers are obliged to 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-on projects or new projects in the same countries (Huang 2015).

growth and stability (Kobayashi 2008).¹⁰ 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.

Hypothesis 2: 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 non-interference 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 2006), thus prompting the claim that Chinese aid props up rogue regimes and delays much-needed governance reforms.¹¹ These claims find mixed support among the few empirical studies that exist (Bermeo 2011; Kersting and Kilby 2014; Dreher and Fuchs 2015; Bader 2015a, 2015b).¹²

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

¹⁰ 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 (e.g., 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 et al. (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: ch. 5) and Dreher and Fuchs (2015) employ quantitative tests showing that China does not target ODA based on natural resource endowments.

¹¹ 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."

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

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.

Hypothesis 3: 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.

3. 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 50 recipient countries in Africa over the 2000-2013 period.¹³ Given the nature of our hypotheses, we are primarily interested in variation over the cross-section (between recipient countries) rather than over the time series.

It is not possible to measure Chinese ODA in the strict, OECD-defined sense of the term as information on the concessionality and development intent of projects is incomplete. We thus 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.¹⁴ 11.5 percent of these projects remain unverified

¹³ 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).

¹⁴ For details on the data collection and coding scheme, see Strange et al. (2015) and Muchapondwa et al. (2016). In Table B.1, 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 coding examples. In Table B.2 in Appendix B, we provide a

pledges and are thus excluded from the econometric analysis below.¹⁵ We analyze the remaining 2,043 projects that have at least reached commitment status. By 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\$).¹⁶ 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.

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

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 re-code 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).

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

¹⁶ 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.

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).¹⁷ 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 zero and one.¹⁸ These data may include a substantial share of votes on topics that are of no particular relevance to China’s foreign policy. Therefore, while we prefer to include such noise instead of arbitrarily restricting the vote set, we test robustness in several ways.¹⁹ We first include only those votes that the U.S. Department of State considers important (so-called “key votes”). We do so because, as Wu et al. (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 are of political importance to the United States are most likely also of some importance to other countries, including China. Second, we focus on votes where China and the United States disagree, as it is in these cases where aid may be most useful—and consequential. Third, we follow Flores-Macías and Kreps (2013) and Dreher and Yu (2016) and focus exclusively on human rights voting in the UNGA.²⁰

Another useful proxy for short-term geostrategic interests is temporary membership on the United Nations Security Council (UNSC). Data have been obtained from Dreher et al. (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

¹⁷ Foot (2014: abstract) 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 forthcoming). 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 et al. (2016) provide both qualitative and quantitative evidence that India’s aid and trade follow UNGA voting patterns.

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

¹⁹ This approach follows Dreher and Fuchs (2015) and Cheung et al. (2014).

²⁰ 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 Kreps 2013: 358). Flores-Macías and Kreps (2013) suggest that convergence in UNGA voting on human rights implies movement toward China’s preferred position rather than mutual convergence.

Council.²¹ 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 one if a recipient country maintains diplomatic relations with the government in Taiwan rather than (mainland) China (data from Rich 2009, own update).²² Cheung et al. (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 in the recipient country (data from Rhamey et al. 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\$).²³ Similarly, to account for China's potential interest in securing access to natural resources, we include a binary variable that is one 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 et al. 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.

²¹ These results are broadly consistent with those reported by Kuziemko and Werker (2006) for the United States and UNICEF.

²² This measure, while blunt, has been employed frequently in other recent studies on aid allocation and Chinese foreign policy (e.g., Kersting and Kilby 2014; Dreher and Fuchs 2015; Johnston et al. 2015). Therefore, we also include it as a second measure of geopolitical alignment.

²³ Data were obtained from the United Nations Comtrade database, accessed at <http://wits.worldbank.org/wits/> on 2 May 2014.

To test the potential effects of recipient institutional quality (Hypothesis 3), we employ the polity2 variable from the Polity IV Project (Marshall et al. 2013).²⁴ 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 non-interference 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 et al. 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 one 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 OLS regression of logged net official finance received from all DAC donors (in constant 2009 US\$) on all other explanatory variables (Dreher et al. 2012).

We lag the time-varying explanatory variables by one year to mitigate endogeneity concerns. The only exception is the variable measuring the total number of people affected by natural disasters, 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 Appendix C, Table C.1 provides an overview on all variables used, their definitions and sources, and Table C.2 provides the corresponding descriptive statistics.

²⁴ Svensson (1999), Kosack (2003), and Montinola (2010) provide evidence that democracies put aid resources to better use than non-democracies. However, others disagree. See Doucouliagos and Paldam (2009).

4. 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); and $control_{it-1}$ denotes the set of five control variables; τ_t stands for year-fixed effects; and ε_{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).²⁵ As expected, at the ten-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

²⁵ At the same time, there are exceptions. In our data set, for example, China supported a bridge construction in Senegal in 2004, i.e., 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 Appendix D.

favors to the West. Alternatively, one might think that China perceives recipients of 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 Appendix D). We find that only countries befriended with China, as measured by their voting in the UNGA, get punished for being more friendly with the West, as indicated by their UNSC membership (see also Figure D.1 in Appendix 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 five-percent level of significance (see Table D.3 in Appendix 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 shed 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.²⁶ An increase in voting similarity by 0.1 increases grant

²⁶ 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 Appendix 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).

funding by 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.²⁷ The coefficient on the Taiwan recognition dummy is negative and statistically significant at the one-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 one-percent level.²⁸ 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.²⁹

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.³⁰ Similarly, oil-producing countries receive more OOF, but not more ODA. Quantitatively, a one-percent increase in trade with China increases OOF by 0.7 percent.³¹ Oil producers receive 3,597 percent more OOF than non-oil producers. We find further support for

²⁷ None of the African “Taiwan recognizers” in the 2000-2011 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.

²⁸ This result also holds 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 Appendix D).

²⁹ 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.

³⁰ 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).

³¹ 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 Tables D.3 in Appendix D).

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.³² Quantitatively, an increase in 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 relationship exists for ODA-like flows or grants.³³ The coefficients on debt-to-GDP and oil presence are significantly different between ODA and OOF, at conventional levels, while 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.³⁴ This outcome provides partial evidence in support of Hypothesis 3 and it is consistent with China's principle of non-interference 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 independently 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 (e.g., Dutt and Traca 2010), 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

³² 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.

³³ This finding is also consistent with our own interview evidence. One official from the Foreign Aid Department of Chinese Ministry of Commerce asserted: "economic concerns are not considered at all" in the allocation of Chinese grants and interest-free loans (Authors' interview, August 2015).

³⁴ These results for democracy are overall robust to a number of tests that we perform in Appendix D. In some regressions, ODA and grants do increase with democracy, however (e.g., Table D.1a). While few of our regressions support such 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.

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 (2000-2012) 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 will need to be explored in future research.

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. These findings help explain why policymakers, journalists, and public intellectuals perceive more Chinese "aid" to be 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.³⁵ 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 countries.³⁶ While we do not observe a significant relationship with the number of disaster victims, there is some evidence that Chinese ODA and OOF increases with the size of Western development assistance.

³⁵ 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.

³⁶ The relative ease of communication between Chinese officials, aid workers, and their African counterparts in English-speaking environments might produce the same result.

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 Appendix 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. Again, as in the analysis above, 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.³⁷ 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).³⁸ Table D.8 in Appendix D shows results where we replicate 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;³⁹ (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.

³⁷ This is in line with evidence in Gassebner et al. (2010) of a trade-deteriorating effect of natural disasters.

³⁸ 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 2002-2010 period (Hudson 2013), and we have no reason to assume a different pattern for OOF. 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.

³⁹ We focus on human rights as these are of particular importance to the G5, in line with the recent literature (e.g., 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.

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. These results are consistent with hypothesis 3, which is no surprise since this 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 Appendix 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 forthcoming); 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 et al. 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 et al. 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 Appendix 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.

5. Conclusions

Despite a burgeoning literature on Chinese economic statecraft (e.g., Drezner 2009; Flores-Macías and Kreps 2013; Fuchs and Klann 2013; Liao and McDowell 2015; Norris 2016; Kastner forthcoming), data scarcity and conceptual confusion have hindered systematic empirical analysis of the nature, distribution, and effects of official development finance from China and other non-Western sources. This paper represents an attempt to fill this gap by decomposing Chinese "aid"

into different categories. We hypothesized that Chinese ODA is largely motivated by foreign policy goals, while Chinese OOF are driven by economic considerations. We also hypothesized that China's ODA is allocated 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 2000-2012 and a range of political and economic variables. Our results suggest ODA 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 "rogue donor" narrative that is so popular in the media and the US policy community, we did not find support for claims that Chinese aid, in the strictest sense of the term (i.e., ODA), is motivated by natural resource acquisition. Nor does Chinese ODA seem to take into account recipient country institutions; at least on the African continent, Chinese ODA does not appear to flow disproportionately to corrupt or authoritarian regimes. We also show that Chinese ODA flows are strongly oriented towards poorer countries, which suggests either that Beijing considers recipient need when allocating aid or that it believes that governments of countries with limited means are easier to influence with aid.⁴⁰ By contrast, less concessional and more commercially-oriented forms of Chinese official financing (i.e., OOF) appear to be driven by bilateral trade ties and natural resource endowments in recipient countries—a motivation that is often incorrectly associated with Chinese "aid."

Without more granular data and a more disciplined commitment to categorizing Chinese state financing in ways that enable apples-to-apples comparisons with Western donors and creditors, politicians, journalists, public intellectuals, policy analysts, and scholars will likely continue to conflate Chinese aid with less concessional and more commercially-oriented forms of Chinese state financing and 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. New methods of collecting data and cross-walking financial flows from DAC and non-DAC sources to common conceptual categories are urgently needed. This paper and various efforts to

⁴⁰ Analyzing aid targeting at the subnational level, Dreher et al. (2015) find that Chinese aid flows disproportionately to the hometowns of African leaders and not necessarily to areas of greatest need within countries.

apply AidData's TUFF methodology represent one way to address this problem (Strange et al. 2017); however, more efforts will be needed 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 empirical inferences drawn in this paper, scholars will need time-series project-level data on Chinese development finance in other regions of the world and comparable data for other non-DAC donors and creditors.

The fact that neither international institutions with formal monitoring responsibilities (e.g., the OECD-DAC) nor scholars seem to be able to keep pace with the rapid changes underway in the global development finance architecture has far-reaching implications for the amount, diversity, and utility of knowledge that social scientists will be able to generate in the future. We already have strong grounds 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; Hernandez 2015; BenYishay et al. 2016; 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 paper described a data collection, categorization, and analysis effort that represents one step forward on this front.

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Table 1: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	4.068 (0.236)	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)	-0.81 (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 (0.131)
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)	0.464** (0.045)	0.285** (0.048)	0.387** (0.047)	0.316** (0.043)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.2	0.27	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

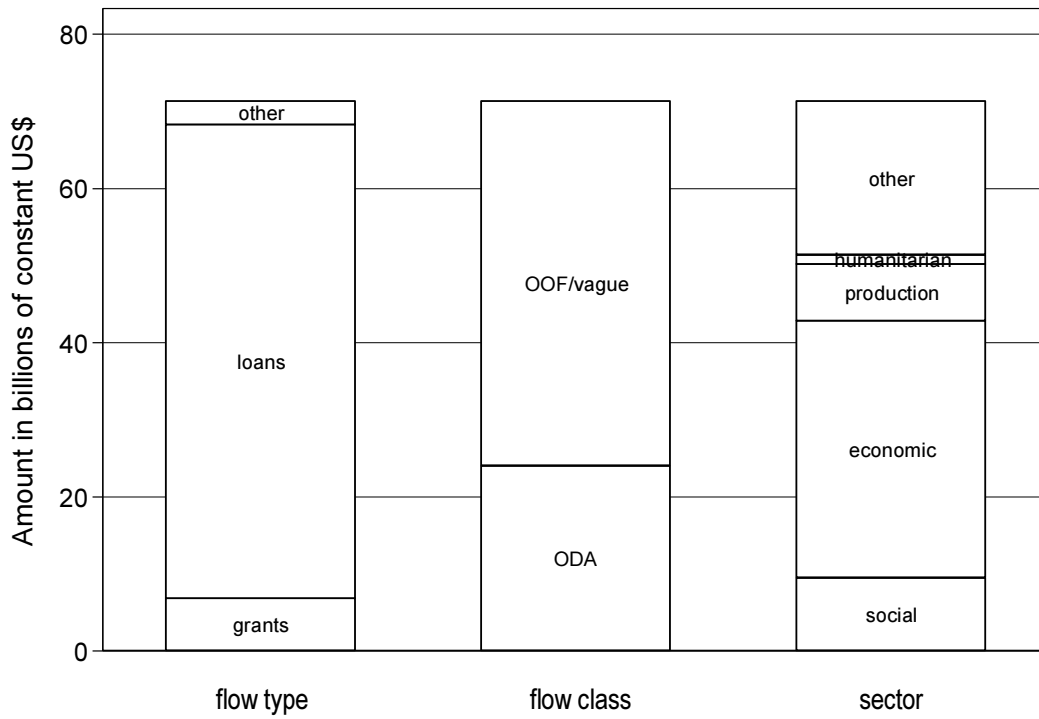


Figure 1: Project numbers and financial value of Chinese development finance by flow type, class type, and sector (2000-2012)

Appendix A. Estimates of Chinese Development Finance to Africa

Source	Year	Amount per year	Flow type
Alden and Alves (2009)	2006	US\$ 12-15B	Exim Bank loans
Bräutigam (2011b)	2009	US\$ 1.4B	ODA disbursements
Christensen (2010)	2009	US\$ 2.1B	Aid (external assistance and Exim Bank loans)
Christensen (2010)	2009	US\$ 375M	Debt relief
Fitch Ratings (2011)	2001-2010	US\$ 6.72B	Exim Bank loans
Harman (2007)	2006	US\$ 12.5B	Exim Bank loans
He (2006)	1956-2006	US\$ 109.8M	Aid
Kurlantzick (2006)	2004	US\$ 2.7B	Aid
Lancaster (2007)	2007	US\$ 582-875M*	Aid
Lum et al. (2009)	2007	US\$ 17.96B	Aid (largely provided as concessional Exim Bank loans)
SAIS-CARI (2016)	2000-2014	US\$ 5.7B	Loans to African governments and SOEs
The Economist (2004)	2002	US\$ 1.8B	Development aid
Wang (2007)	2004-2005	US\$ 1-1.5B	ODA
Wolf et al. (2013)	2001-2011	US\$ 1.7B	Delivered foreign aid and government-sponsored investment activities
Wolf et al. (2013)	2001-2011	US\$ 15.9B	Pledged foreign aid and government-sponsored investment activities

Notes: This is an updated version of a table in the online appendix in Strange et al. (2017). *: Authors' calculations based on mid-point of the estimated range of total Chinese aid (\$1.5-2B), and the estimated range of financing in Africa (33%-50%).

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Appendix B. *AidData's Chinese Official Finance to Africa Data Set: Comparisons and Examples*

Table B.1. Comparison with Official Data from Malawi

In the official Aid Management Platform (AMP) database that is maintained by the government of Malawi, only six records are listed with the People's Republic of China as the donor entity. These projects total US\$ 334.3 million. Five of these projects are included in our dataset. However, our dataset includes 20 additional Chinese official finance projects in Malawi, totaling US\$ 418.4 million in commitments (values in current US\$). Collectively, these projects more than double the amount of recorded commitments of Chinese official finance in Malawi. This comparison illustrates the added value of using TUFF as another method to track development finance flows in the absence of official project records. The following table provides the details of this comparison.

Title	Sector	Amount (mill. US\$)
<i>Source: MAMP</i>		
Karonga et al. Road Building	Transport Infrastructure and Public Works	70
Malawi University of Science and Technology	Education and Research & Development	80
Parliament House	Democratic Governance	50
International Conference Center and Business Hotel Project	Tourism, Wildlife and Culture	63
Technical Assistance in support of the Agriculture Sector Wide Approach	Agriculture	0
Malawi National Stadium	Gender, Youth Development and Sports	71.3
<i>Source: AidData</i>		
3rd Medical Team to Malawi	Health	N/A
Construction of a Confucius Institute at the University of Malawi (2013)	Education	N/A
600 Boreholes in 6 districts	Water Supply and Sanitation	N/A

China provides first batch of anti-malaria drugs to Malawi	Health	N/A
Donation of computers to Department of Immigration	Government and Civil Society	0.0
Mkwichi Modern Primary school	Education	3.1
Construction of university of science and technology	Education	80.0
China sends 2nd Medical Team to Malawi	Health	N/A
Donations to Mzuzu University	Education	0.0
Equipment for Malawi parliament	Government and Civil Society	0.2
Grant for Furniture Donation to Girls' School	Education	N/A
Bunda College of Agriculture Donation	Education	N/A
Kapichira Hydroelectric Dam Phase II	Energy Generation and Supply	60.0
Construction of National Assembly Building	Government and Civil Society	45.0
Donation to Ministry of Women and Child Development	Women in Development	N/A
Furniture and Vehicle Donation to Foreign Ministry	Government and Civil Society	0.3
Two Secondary Schools	Education	1.5
Fertilizer Donation	Agriculture, Forestry and Fishing	1.0
Ministry of Youth and Sport Equipment Donation	Other Social infrastructure and services	N/A
National stadium construction	Other Social infrastructure and services	65.0
kwacha Presidential Hotel, International Conference Centre and Presidential Villas	Trade and Tourism	92.3
1st Medical Team to Malawi	Health	N/A
Karonga Chipita highway	Transport and Storage	70.0
Scholarships	Education	N/A
Training of government economic officials	Government and Civil Society	N/A

Table B.2. *Flow Class Coding Examples of Chinese Official Finance Projects to Africa*

Many projects in AidData’s Chinese Official Finance to Africa dataset (version 1.2) can be straightforwardly categorized as ODA-like or OOF-like based upon their flow type. For instance, donations of supplies for schools and hospitals can be unambiguously coded as ODA-like, while loans provided on market terms to build oil refineries clearly belong in the OOF-like category. While such cases lend themselves to simply ODA-like or OOF-like categorizations, coding decisions are sometimes less clear for other types of projects. In particular, some Chinese-financed loans qualify as ODA-like, while others should be coded as OOF-like based on their degree of concessionality. The OECD stipulates that only loans with a grant element of at least 25 percent can qualify as ODA. We use the OECD’s grant element calculator to calculate the grant element for each loan (Strange et al. 2015). For some projects, such as project 1853 below, we lack sufficient information to calculate the grant element and thus cannot determine whether flow class is ODA-like or OOF-like. In addition, projects wherein the donor has representational or commercial intent as defined by the OECD—and not simply the intent to improve development in the recipient country—are classified as OOF-like, even if they are provided with a high grant element. The table below provides examples of coding decisions that were made for individual projects financed by the Chinese government to help illustrate the nuanced nature of these categories.

Project name	ID	Recipient	Amount (mill. 2009 US\$)	Flow type	Grant element	Intent	Status	Flow class
Omotosho Power Plant Phase I	27948	Nigeria	189.95	Export credit	23.1%	Mixed	Completion	OOF-like
Djibouti Telecom project	421	Djibouti	19.33	Loan	20.3%	Development	Commitment	OOF-like
Matabeleland Zambezi Water Pipeline	31215	Zimbabwe	726.17	Loan	43.61%	Development	Implementation	ODA-like
Maputo-Catembe Bridge	1240	Mozambique	565.01	Loan	40.57%	Development	Implementation	ODA-like
Public Works Loan	1853	Morocco	7.79	Loan	Unknown	Development	Commitment	OF vague
150-bed Hospital	2368	Guinea	10.11	Grant	N/A	Development	Completion	ODA-like

Preferential Export Credits	1235	Namibia	119.33	Export credit	N/A	Commercial	Pledge	OOF-like
Chinese Language School	468	Egypt	6.61	Grant	N/A	Representational	Completion	OOF-like

Source: AidData TUFF 1.2 Data Set (Strange et al. 2017); available online at china.aiddata.org.

Appendix C. Data

Table C.1. Variables, definitions and sources

Variable name	Definition	Source
<i>Dependent variables</i>		
Total OF (log amount)	(log) OF amount in constant 2009 US\$	AidData (Strange et al. 2017)
ODA (log amount)	(log) ODA amount in constant 2009 US\$	AidData (Strange et al. 2017)
OOF/vague (log amount)	(log) OOF/vague amount in constant 2009 US\$	AidData (Strange et al. 2017)
Grants (log amount)	(log) OF grant amount in constant 2009 US\$	AidData (Strange et al. 2017)
Loans (log amount)	(log) OF loan amount in constant 2009 US\$	AidData (Strange et al. 2017)
Total OF (number)	Number of OF projects	AidData (Strange et al. 2017)
ODA (number)	Number of ODA projects	AidData (Strange et al. 2017)
OOF/vague (number)	Number of OOF/vague projects	AidData (Strange et al. 2017)
Grants (number)	Number of OF grant projects	AidData (Strange et al. 2017)
Loans (number)	Number of OF loan projects	AidData (Strange et al. 2017)
Social OF (log amount)	(log) Social OF amount in constant 2009 US\$	AidData (Strange et al. 2017)
Economic OF (log amount)	(log) Economic OF amount in constant 2009 US\$	AidData (Strange et al. 2017)
Production OF (log amount)	(log) Production OF amount in constant 2009 US\$	AidData (Strange et al. 2017)
Humanitarian OF (log amount)	(log) Humanitarian OF amount in constant 2009 US\$	AidData (Strange et al. 2017)
<i>Explanatory variables</i>		
UN voting with China	Voting alignment in the UN General Assembly with China on all votes, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UN voting with China, keyvotes	Voting alignment in the UN General Assembly with China on keyvotes, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UN voting with China, disagreement	Voting alignment in the UN General Assembly with China on votes where the United States and China disagree, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UN voting with China, human rights	Voting alignment in the UN General Assembly with China on human-rights issues, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UN voting with G-5, human rights	Average voting alignment in the UN General Assembly with the G-5 (France, Germany, Japan, the United Kingdom, and the United States) on human-rights issues, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UN voting with the U.S.	Voting alignment in the UN General Assembly with the United States on all votes, lag	Strezhnev and Voeten (2012) (extended as in Kilby 2009)
UNSC member	1 if a country is a temporary member of the United Nations Security Council, lag	Dreher et al. (2009), updated version from http://www.axel-dreher.de/
Taiwan recognition	1 if country entertains diplomatic relations with Taiwan, lag	Rich (2009), own update
Embassy in Beijing	1 if embassy received by the government in Beijing	DIPCON (Rhamey et al. 2013)
Chinese embassy Stance on Tibet (2=strong support)	1 if embassy sent by the government in Beijing 2 [1] if a country expressed strong [moderate] support of China following its 2008 crackdown on unrest in Tibetan areas in 2008	DIPCON (Rhamey et al. 2013) Kastner (forthcoming)
Trade with China (log)	Bilateral trade (exports plus imports) with China (constant 2009 US\$), lag	UN Comtrade via WITS (http://wits.worldbank.org/)
Trade with DAC (log)	Bilateral trade (exports plus imports) with DAC countries (constant 2009 US\$), lag	UN Comtrade via WITS (http://wits.worldbank.org/)
Oil dummy	1 if a country produced crude petroleum prior to our sample period (i.e., in 1999)	British Geological Survey (2015)
Debt/GDP	Gross government debt-to-GDP ratio (in %), lag	IMF Historical Public Debt Database 2013 (Abbas et al. 2010)

Polity	Regime authority on a 21-point scale ranging from -10 (hereditary monarchy) to +10 (consolidated democracy), lag	Polity IV, version 2012 (Marshall et al. 2013)
Control of corruption	Index on Control of Corruption ranging from -2.5 to 2.5 with higher values corresponding to better governance, interpolated, lag	Worldwide Governance Indicators (Kaufmann et al. 2010), updated version from 4 August 2015)
Right-wing government	1 if the recipient government is coded as conservative, Christian democratic, or right-wing	Database of Political Institutions, version 2012 (Beck et al. 2001)
GDP per capita (log)	GDP per capita (constant 2009 US\$), lag	World Bank (2016)
Population (log)	Total population size, lag	World Bank (2016)
Affected from disasters (log)	(log) Total number of people affected from natural disasters	EM-DAT (2015)
English language	1 if English is official language	CEPII (Mayer and Zignago 2011)
DAC OF (log, residuals)	Residuals from an OLS regression of lagged log total development finance (ODA+OOF) flows from DAC donors (constant 2009 US\$) on all other explanatory variables	Own regressions (DAC data from OECD 2016)

Notes:

- We draw upon AidData's Chinese Official Finance to Africa Dataset, Version 1.2 (Strange et al. forthcoming), which is available for download at <http://china.aiddata.org/>. This dataset covers financial flows over the 2000-2013 period. We omit 2013 data from our analysis since it is possible that the TUFF methodology's reliance on open sources may lead to downwardly biased financial and project number estimates in more recent years (Strange et al. forthcoming).
- All explanatory variables are converted from current US\$ to constant 2009 US\$ using deflators for the United States.
- We added one to the aid amount measures, *affected from disasters (log)* and *energy depletion* before taking logs.
- Since the data are only available in 5-year intervals, we carry forward the respective values to the next available observation.

Table C.2 Descriptive statistics

Variable name	Obs	Mean	Std. Dev.	Min	Max
<i>Dependent variables</i>					
Total OF (log amount)	644	10.51	8.52	0.00	22.69
ODA (log amount)	644	8.81	8.24	0.00	21.11
OOV/vague (log amount)	644	5.22	8.11	0.00	22.69
Grants (log amount)	644	7.66	7.83	0.00	20.43
Loans (log amount)	644	5.79	8.51	0.00	22.69
Total OF (number)	644	3.11	3.42	0.00	34.00
ODA (number)	644	2.18	2.29	0.00	14.00
OOV/vague (number)	644	0.93	2.00	0.00	30.00
Grants (number)	644	2.13	2.28	0.00	16.00
Loans (number)	644	0.77	2.06	0.00	33.00
Social OF (log amount)	644	5.84	7.63	0.00	20.62
Economic OF (log amount)	644	4.68	7.87	0.00	21.41
Production OF (log amount)	644	1.96	5.36	0.00	21.59
Humanitarian OF (log amount)	644	0.86	3.38	0.00	20.75
<i>Explanatory variables</i>					
UN voting with China	644	0.84	0.11	0.50	0.96
UN voting with China, keyvotes	644	0.75	0.11	0.38	1.00
UN voting with China, disagreement	644	0.88	0.12	0.50	1.00
UN voting with China, human rights	644	0.85	0.13	0.48	1.00
UN voting with G-5, human rights	644	0.56	0.08	0.39	0.74
UN voting with the U.S.	644	0.26	0.09	0.11	0.51
UNSC member	644	0.06	0.24	0.00	1.00
Taiwan recognition	644	0.10	0.30	0.00	1.00
Embassy in Beijing	644	0.79	0.41	0.00	1.00
Chinese embassy	644	0.83	0.38	0.00	1.00
Stance on Tibet (2=strong support)	581	1.02	0.91	0.00	2.00
Trade with China (log)	644	19.08	2.14	12.62	24.51
Trade with DAC (log)	644	21.32	1.70	17.73	25.37
Oil dummy	644	0.34	0.47	0.00	1.00
Debt/GDP	644	74.71	66.54	0.00	523.38
Polity	644	1.11	5.29	-9.00	10.00
Control of corruption	644	-0.60	0.56	-1.73	1.25
Right-wing government	644	0.09	0.29	0.00	1.00
GDP per capita (log)	644	6.77	1.10	4.81	10.07
Population (log)	644	15.91	1.39	12.97	18.91
Affected from disasters (log)	644	7.00	5.20	0.00	16.52
English language	644	0.42	0.49	0.00	1.00
DAC OF (log, residuals)	644	0.00	1.71	-17.31	3.07

Note: Descriptive statistics based on sample of regression in Table 1, column 1.

Appendix D. Tests for Robustness

Table D.1a. Diplomatic relations rather than Taiwan recognition: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOV/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	8.339* (0.055)	8.818** (0.027)	6.132* (0.053)	11.815*** (0.001)	6.574* (0.075)
UNSC member	-2.629* (0.072)	-3.073** (0.011)	-0.869 (0.515)	-3.970*** (0.000)	-1.050 (0.449)
Embassy in Beijing	5.315*** (0.001)	4.670*** (0.002)	1.353 (0.125)	4.103*** (0.001)	1.584 (0.198)
Trade with China (log)	0.431 (0.378)	0.448 (0.325)	0.664** (0.039)	0.149 (0.697)	0.584 (0.216)
Oil dummy	2.160 (0.232)	-0.383 (0.832)	3.562** (0.011)	1.094 (0.437)	2.525 (0.182)
Debt/GDP	0.002 (0.799)	0.001 (0.859)	-0.015*** (0.003)	0.007 (0.257)	-0.016** (0.017)
Polity	0.240** (0.042)	0.217** (0.047)	0.090 (0.243)	0.217** (0.015)	0.102 (0.359)
Control of corruption	-2.102** (0.049)	-1.130 (0.229)	-2.778*** (0.004)	-1.994** (0.031)	-1.846* (0.095)
GDP per capita (log)	-1.824* (0.071)	-1.368 (0.157)	-2.083*** (0.006)	-1.357* (0.099)	-1.368 (0.220)
Population (log)	-0.756 (0.264)	-0.430 (0.500)	-0.581 (0.216)	-0.304 (0.606)	-0.551 (0.418)
Affected from disasters (log)	0.012 (0.864)	-0.003 (0.971)	0.013 (0.846)	0.036 (0.578)	-0.028 (0.732)
English language	3.404*** (0.006)	3.508*** (0.006)	2.879*** (0.000)	3.074*** (0.007)	3.293*** (0.002)
DAC OF (log, residuals)	0.370 (0.137)	0.321 (0.273)	0.262 (0.122)	0.257 (0.294)	0.292 (0.115)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.22	0.21	0.18	0.23	0.15
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOV—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.1b. Diplomatic relations rather than Taiwan recognition: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	4.305 (0.309)	4.739 (0.182)	4.907 (0.139)	8.374** (0.012)	5.181 (0.195)
UNSC member	-2.903** (0.038)	-3.324*** (0.003)	-0.943 (0.477)	-4.188*** (0.000)	-1.135 (0.404)
Chinese embassy	4.934*** (0.004)	4.931*** (0.001)	1.477 (0.130)	4.173*** (0.001)	1.682 (0.158)
Trade with China (log)	0.608 (0.200)	0.584 (0.175)	0.702** (0.023)	0.275 (0.427)	0.630 (0.169)
Oil dummy	2.415 (0.174)	-0.070 (0.968)	3.659*** (0.008)	1.345 (0.331)	2.632 (0.158)
Debt/GDP	0.000 (0.996)	0.000 (0.964)	-0.016*** (0.003)	0.006 (0.377)	-0.016** (0.014)
Polity	0.175 (0.124)	0.153 (0.139)	0.071 (0.329)	0.163* (0.057)	0.08 (0.457)
Control of corruption	-1.669 (0.119)	-0.68 (0.464)	-2.642*** (0.005)	-1.617* (0.074)	-1.692 (0.131)
GDP per capita (log)	-2.256** (0.028)	-1.808* (0.064)	-2.216*** (0.003)	-1.728** (0.031)	-1.518 (0.187)
Population (log)	-0.415 (0.531)	-0.148 (0.806)	-0.501 (0.273)	-0.052 (0.924)	-0.455 (0.509)
Affected from disasters (log)	0.023 (0.745)	0.012 (0.869)	0.017 (0.796)	0.047 (0.468)	-0.023 (0.774)
English language	3.299*** (0.008)	3.414*** (0.007)	2.852*** (0.000)	2.992*** (0.008)	3.261*** (0.002)
DAC OF (log, residuals)	0.543** (0.013)	0.465* (0.067)	0.294* (0.057)	0.387* (0.068)	0.331* (0.055)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.22	0.22	0.18	0.23	0.15
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.2. Interaction of UNGA and UNSC: Allocation of China's development finance

(financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	4.807 (0.155)	5.607* (0.075)	4.390 (0.135)	8.974*** (0.003)	4.643 (0.182)
UNSC member	30.633** (0.031)	26.167** (0.039)	0.056 (0.997)	10.936 (0.407)	12.981 (0.458)
UN voting with China # UNSC member	-38.517** (0.021)	-33.853** (0.022)	-1.005 (0.953)	-17.241 (0.265)	-16.193 (0.413)
Taiwan recognition	-9.862*** (0.000)	-8.894*** (0.000)	-3.914*** (0.000)	-7.331*** (0.000)	-4.984*** (0.000)
Trade with China (log)	0.600 (0.132)	0.593 (0.124)	0.688** (0.014)	0.288 (0.380)	0.601 (0.142)
Oil dummy	2.077 (0.229)	-0.445 (0.799)	3.609*** (0.007)	1.029 (0.433)	2.584 (0.157)
Debt/GDP	-0.003 (0.604)	-0.003 (0.624)	-0.017*** (0.000)	0.003 (0.577)	-0.018** (0.011)
Polity	0.088 (0.381)	0.080 (0.401)	0.028 (0.690)	0.103 (0.222)	0.024 (0.801)
Control of corruption	-1.141 (0.215)	-0.260 (0.759)	-2.375*** (0.008)	-1.282 (0.135)	-1.331 (0.196)
GDP per capita (log)	-2.349*** (0.008)	-1.844** (0.032)	-2.317*** (0.001)	-1.757** (0.015)	-1.652 (0.136)
Population (log)	-0.556 (0.320)	-0.262 (0.615)	-0.596 (0.164)	-0.161 (0.743)	-0.556 (0.405)
Affected from disasters (log)	0.018 (0.789)	0.004 (0.954)	0.023 (0.735)	0.043 (0.502)	-0.019 (0.814)
English language	3.783*** (0.001)	3.854*** (0.001)	3.074*** (0.000)	3.379*** (0.002)	3.509*** (0.001)
DAC OF (log, residuals)	0.537*** (0.004)	0.466** (0.041)	0.285** (0.049)	0.388** (0.045)	0.317** (0.042)
Country FE	No	No	No	No	No
Year FE	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: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official

Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.3. Allocation of China's development finance (project numbers, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOFF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	1.316 (0.426)	1.567 (0.130)	-0.251 (0.811)	1.748 (0.133)	-0.354 (0.735)
UNSC member	0.077 (0.928)	-0.294 (0.290)	0.371 (0.596)	-0.505* (0.086)	0.538 (0.491)
Taiwan recognition	-2.718*** (0.000)	-2.119*** (0.000)	-0.599*** (0.000)	-2.027*** (0.000)	-0.518*** (0.004)
Trade with China (log)	0.387** (0.040)	0.172 (0.122)	0.216 (0.104)	0.173 (0.188)	0.197 (0.176)
Oil dummy	0.205 (0.763)	-0.297 (0.567)	0.502* (0.059)	-0.275 (0.543)	0.370 (0.310)
Debt/GDP	-0.004 (0.109)	-0.001 (0.723)	-0.004* (0.054)	0.000 (0.836)	-0.003* (0.079)
Polity	0.032 (0.376)	0.021 (0.501)	0.011 (0.378)	0.022 (0.455)	0.005 (0.801)
Control of corruption	-0.983** (0.033)	-0.543 (0.117)	-0.440** (0.022)	-0.595 (0.122)	-0.326* (0.093)
GDP per capita (log)	-0.734** (0.042)	-0.481* (0.065)	-0.254* (0.093)	-0.465* (0.095)	-0.215 (0.282)
Population (log)	-0.267 (0.261)	-0.161 (0.352)	-0.106 (0.345)	-0.142 (0.428)	-0.104 (0.464)
Affected from disasters (log)	0.022 (0.353)	0.009 (0.628)	0.013 (0.244)	0.003 (0.899)	0.017 (0.173)
English language	1.880*** (0.000)	1.417*** (0.000)	0.463** (0.019)	1.358*** (0.000)	0.455** (0.042)
DAC OF (log, residuals)	0.185 (0.101)	0.113 (0.198)	0.073** (0.027)	0.112 (0.177)	0.059 (0.105)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.31	0.36	0.15	0.35	0.11
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.4. UNGA voting on “key votes”: Allocation of China’s development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China, keyvotes	3.495 (0.357)	4.569 (0.220)	1.690 (0.656)	7.824** (0.031)	2.204 (0.617)
UNSC member	-2.542* (0.068)	-2.984*** (0.007)	-0.811 (0.543)	-3.893*** (0.000)	-0.968 (0.468)
Taiwan recognition	-9.932*** (0.000)	-8.993*** (0.000)	-4.101*** (0.000)	-7.578*** (0.000)	-5.132*** (0.000)
Trade with China (log)	0.635 (0.114)	0.628 (0.108)	0.732*** (0.009)	0.338 (0.310)	0.645 (0.118)
Oil dummy	2.117 (0.222)	-0.398 (0.820)	3.555** (0.010)	1.072 (0.418)	2.559 (0.164)
Debt/GDP	-0.004 (0.508)	-0.004 (0.529)	-0.018*** (0.000)	0.002 (0.703)	-0.019*** (0.008)
Polity	0.087 (0.399)	0.081 (0.408)	0.027 (0.708)	0.108 (0.206)	0.022 (0.818)
Control of corruption	-0.956 (0.279)	-0.044 (0.957)	-2.107** (0.012)	-0.899 (0.279)	-1.083 (0.251)
GDP per capita (log)	-2.458*** (0.007)	-1.970** (0.024)	-2.362*** (0.001)	-1.935*** (0.010)	-1.719 (0.119)
Population (log)	-0.630 (0.248)	-0.336 (0.512)	-0.568 (0.183)	-0.217 (0.657)	-0.564 (0.385)
Affected from disasters (log)	0.026 (0.699)	0.011 (0.876)	0.017 (0.798)	0.042 (0.490)	-0.020 (0.813)
English language	3.871*** (0.001)	3.943*** (0.001)	3.009*** (0.000)	3.439*** (0.002)	3.496*** (0.001)
DAC OF (log, residuals)	0.531*** (0.006)	0.461* (0.054)	0.273* (0.059)	0.382* (0.065)	0.307* (0.051)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.19	0.26	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.5. UNGA voting where China and the U.S. disagree: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China, disagreement	3.114 (0.305)	4.007 (0.156)	2.971 (0.272)	6.983*** (0.009)	2.650 (0.395)
UNSC member	-2.558* (0.066)	-3.006*** (0.007)	-0.816 (0.537)	-3.929*** (0.000)	-0.977 (0.464)
Taiwan recognition	-9.836*** (0.000)	-8.872*** (0.000)	-3.974*** (0.000)	-7.364*** (0.000)	-5.034*** (0.000)
Trade with China (log)	0.623 (0.122)	0.613 (0.114)	0.705** (0.012)	0.311 (0.342)	0.627 (0.128)
Oil dummy	2.116 (0.221)	-0.402 (0.817)	3.604*** (0.008)	1.070 (0.413)	2.582 (0.157)
Debt/GDP	-0.004 (0.534)	-0.004 (0.564)	-0.018*** (0.000)	0.003 (0.630)	-0.018*** (0.009)
Polity	0.084 (0.408)	0.077 (0.425)	0.028 (0.696)	0.102 (0.228)	0.022 (0.823)
Control of corruption	-1.091 (0.229)	-0.216 (0.797)	-2.290*** (0.009)	-1.203 (0.162)	-1.224 (0.222)
GDP per capita (log)	-2.402*** (0.007)	-1.897** (0.028)	-2.336*** (0.001)	-1.809** (0.012)	-1.684 (0.128)
Population (log)	-0.618 (0.260)	-0.320 (0.534)	-0.588 (0.162)	-0.191 (0.693)	-0.569 (0.391)
Affected from disasters (log)	0.028 (0.681)	0.013 (0.852)	0.021 (0.751)	0.046 (0.460)	-0.017 (0.834)
English language	3.856*** (0.001)	3.921*** (0.001)	3.052*** (0.000)	3.406*** (0.002)	3.510*** (0.001)
DAC OF (log, residuals)	0.530*** (0.005)	0.460** (0.048)	0.279* (0.052)	0.381* (0.052)	0.309** (0.047)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.19	0.26	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.6. UNGA voting on human rights: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China, human rights	2.309 (0.379)	2.593 (0.332)	5.162* (0.060)	4.884** (0.036)	4.101 (0.171)
UNSC member	-2.531* (0.068)	-2.976*** (0.007)	-0.749 (0.572)	-3.873*** (0.000)	-0.924 (0.493)
Taiwan recognition	-9.874*** (0.000)	-8.943*** (0.000)	-3.839*** (0.000)	-7.466*** (0.000)	-4.943*** (0.000)
Trade with China (log)	0.640 (0.110)	0.640* (0.099)	0.686** (0.014)	0.353 (0.285)	0.616 (0.132)
Oil dummy	2.054 (0.237)	-0.489 (0.782)	3.601*** (0.006)	0.925 (0.494)	2.569 (0.156)
Debt/GDP	-0.004 (0.520)	-0.004 (0.537)	-0.017*** (0.000)	0.002 (0.676)	-0.018*** (0.009)
Polity	0.083 (0.422)	0.075 (0.444)	0.031 (0.659)	0.099 (0.247)	0.024 (0.803)
Control of corruption	-1.014 (0.257)	-0.088 (0.915)	-2.436*** (0.006)	-1.007 (0.236)	-1.317 (0.187)
GDP per capita (log)	-2.385*** (0.008)	-1.877** (0.031)	-2.301*** (0.001)	-1.773** (0.016)	-1.656 (0.135)
Population (log)	-0.601 (0.270)	-0.292 (0.571)	-0.619 (0.134)	-0.148 (0.765)	-0.588 (0.373)
Affected from disasters (log)	0.027 (0.695)	0.010 (0.883)	0.027 (0.687)	0.043 (0.506)	-0.013 (0.868)
English language	3.827*** (0.001)	3.872*** (0.001)	3.126*** (0.000)	3.333*** (0.002)	3.559*** (0.000)
DAC OF (log, residuals)	0.525*** (0.006)	0.452* (0.052)	0.285** (0.047)	0.368* (0.062)	0.313** (0.043)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.20	0.26	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.7. Allocation of China's development finance (financial value, 2000-2012, OLS with country-fixed effects)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with China	3.702 (0.399)	3.380 (0.449)	3.598 (0.346)	8.263** (0.030)	5.249 (0.348)
UNSC member	-1.936 (0.123)	-2.400** (0.016)	-0.177 (0.892)	-3.663*** (0.000)	-0.580 (0.637)
Taiwan recognition	-6.238** (0.047)	-5.628** (0.014)	-2.360 (0.461)	-5.705*** (0.000)	-0.726 (0.835)
Trade with China (log)	-0.213 (0.658)	0.004 (0.992)	-0.249 (0.503)	-0.178 (0.699)	-0.504 (0.406)
Debt/GDP	0.000 (0.999)	-0.004 (0.723)	-0.012 (0.106)	0.007 (0.279)	-0.003 (0.829)
Polity	0.140 (0.447)	0.055 (0.727)	-0.077 (0.666)	0.166 (0.192)	0.002 (0.990)
Control of corruption	1.052 (0.602)	0.799 (0.695)	0.490 (0.737)	0.628 (0.685)	0.662 (0.706)
GDP per capita (log)	-0.237 (0.843)	-0.997 (0.494)	-0.328 (0.805)	-0.141 (0.931)	0.432 (0.822)
Population (log)	11.872 (0.213)	9.586 (0.383)	17.100 (0.121)	-1.729 (0.885)	32.015** (0.040)
Affected from disasters (log)	-0.096 (0.121)	-0.044 (0.524)	-0.099 (0.153)	-0.004 (0.944)	-0.165** (0.018)
DAC OF (log, residuals)	0.154 (0.404)	0.228 (0.253)	-0.030 (0.881)	0.178 (0.254)	-0.067 (0.748)
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.10	0.09	0.07	0.11	0.11
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.8. Allocation of DAC ODA (financial value, 2000-2012, OLS)

	(1)	(2)	(3)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)
UN voting with G-5, human rights	1.569* (0.063)	1.543** (0.045)	11.754 (0.150)
UNSC member	0.198 (0.514)	0.008 (0.952)	-0.969 (0.439)
Trade with DAC (log)	0.045 (0.655)	0.004 (0.972)	1.207* (0.093)
Oil dummy	0.637 (0.139)	0.323 (0.133)	-0.083 (0.969)
Debt/GDP	0.001 (0.485)	0.000 (0.696)	0.007 (0.336)
Polity	0.044 (0.112)	0.022 (0.147)	0.144 (0.156)
Control of corruption	0.563 (0.113)	0.374** (0.015)	0.183 (0.877)
GDP per capita (log)	-0.544 (0.199)	-0.156 (0.398)	0.295 (0.799)
Population (log)	0.564*** (0.003)	0.692*** (0.000)	2.007*** (0.007)
Total affected from disasters	0.029 (0.255)	0.009 (0.286)	-0.016 (0.862)
English language	0.125 (0.614)	-0.036 (0.843)	1.260 (0.293)
Country FE	0.34	0.69	0.29
Year FE	50	50	50
R-Squared	644	639	644
Number of countries	0.34	0.69	0.29
Number of observations	50	50	50

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.9. UNGA voting with the United States: Allocation of China's development finance

(financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
UN voting with the U.S.	-3.163 (0.562)	-5.137 (0.280)	-3.866 (0.444)	-10.470** (0.029)	-2.565 (0.642)
UNSC member	-2.572* (0.066)	-3.027*** (0.007)	-0.832 (0.530)	-3.970*** (0.000)	-0.989 (0.460)
Taiwan recognition	-9.893*** (0.000)	-8.906*** (0.000)	-3.997*** (0.000)	-7.368*** (0.000)	-5.087*** (0.000)
Trade with China (log)	0.645 (0.110)	0.633 (0.104)	0.720** (0.011)	0.335 (0.304)	0.647 (0.117)
Oil dummy	2.088 (0.234)	-0.412 (0.814)	3.598*** (0.008)	1.089 (0.405)	2.555 (0.164)
Debt/GDP	-0.004 (0.507)	-0.004 (0.532)	-0.018*** (0.000)	0.002 (0.681)	-0.019*** (0.008)
Polity	0.083 (0.414)	0.077 (0.423)	0.028 (0.697)	0.103 (0.216)	0.021 (0.832)
Control of corruption	-0.992 (0.258)	-0.139 (0.864)	-2.236** (0.010)	-1.142 (0.174)	-1.133 (0.245)
GDP per capita (log)	-2.410*** (0.007)	-1.910** (0.028)	-2.346*** (0.001)	-1.838** (0.011)	-1.690 (0.127)
Population (log)	-0.601 (0.273)	-0.310 (0.547)	-0.581 (0.166)	-0.192 (0.693)	-0.553 (0.402)
Affected from disasters (log)	0.025 (0.714)	0.010 (0.878)	0.020 (0.770)	0.044 (0.478)	-0.019 (0.812)
English language	3.825*** (0.001)	3.907*** (0.001)	3.043*** (0.000)	3.418*** (0.002)	3.481*** (0.001)
DAC OF (log, residuals)	0.529*** (0.006)	0.462** (0.049)	0.280* (0.053)	0.387* (0.051)	0.308* (0.051)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.19	0.26	0.17
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Table D.10. Stance on Tibet: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOF/vague (log amount)	Grants (log amount)	Loans (log amount)
Stance on Tibet	0.052	-0.179	-0.414	-0.009	-0.205
(2=strong support)	(0.935)	(0.775)	(0.350)	(0.986)	(0.749)
UN voting with China	3.658	5.430	4.614	9.047***	4.047
	(0.348)	(0.149)	(0.142)	(0.007)	(0.282)
UNSC member	-2.857*	-3.349***	-0.933	-4.368***	-1.119
	(0.058)	(0.006)	(0.511)	(0.000)	(0.442)
Taiwan recognition	-7.231**	-7.227***	-3.057	-6.789***	-3.426
	(0.013)	(0.001)	(0.148)	(0.000)	(0.133)
Trade with China (log)	1.024*	0.771	0.994**	0.348	1.172**
	(0.081)	(0.137)	(0.012)	(0.436)	(0.016)
Oil dummy	2.104	-0.311	3.464***	1.181	2.971*
	(0.222)	(0.861)	(0.009)	(0.392)	(0.079)
Debt/GDP	-0.003	-0.007	-0.017**	0.002	-0.021**
	(0.800)	(0.491)	(0.010)	(0.837)	(0.013)
Polity	0.041	0.036	-0.007	0.086	-0.011
	(0.714)	(0.748)	(0.933)	(0.382)	(0.916)
Control of corruption	-0.900	-0.061	-2.136**	-1.214	-0.865
	(0.344)	(0.944)	(0.019)	(0.182)	(0.378)
GDP per capita (log)	-2.920***	-2.237**	-2.871***	-1.895**	-2.825***
	(0.005)	(0.032)	(0.001)	(0.035)	(0.008)
Population (log)	-1.197*	-0.699	-1.046**	-0.343	-1.450**
	(0.066)	(0.264)	(0.032)	(0.585)	(0.021)
Affected from disasters (log)	0.044	0.031	0.024	0.067	-0.036
	(0.573)	(0.695)	(0.751)	(0.350)	(0.674)
English language	4.381***	4.168***	3.081***	3.509***	4.156***
	(0.002)	(0.004)	(0.000)	(0.009)	(0.001)
DAC OF (log, residuals)	0.442**	0.422**	0.238	0.358**	0.245
	(0.011)	(0.040)	(0.105)	(0.048)	(0.157)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.20	0.21	0.18	0.21	0.17
Number of countries	45	45	45	45	45
Number of observations	581	581	581	581	581

Notes: OF—Official Finance; ODA—Official Development Assistance; OOF—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

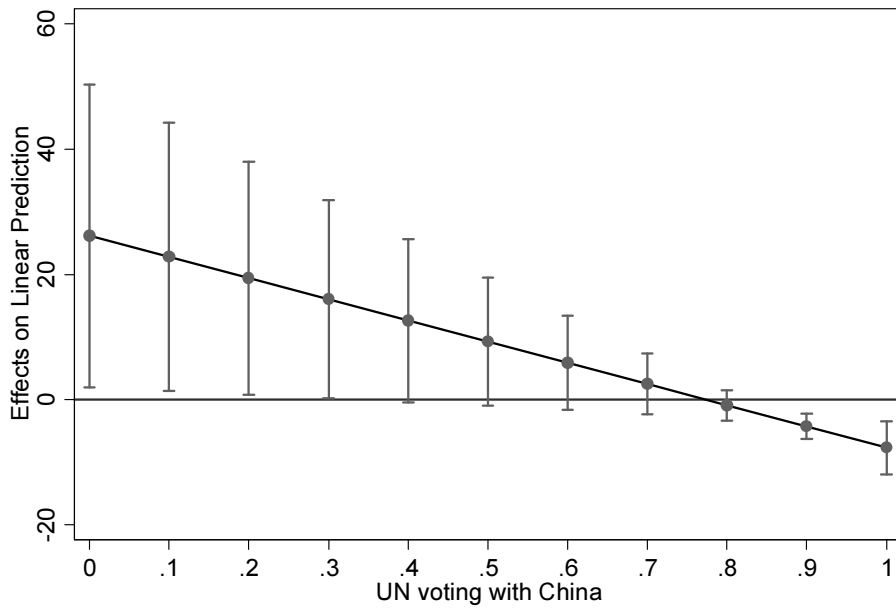
Table D.11. Political orientation of recipient governments: Allocation of China's development finance (financial value, 2000-2012, OLS)

	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	ODA (log amount)	OOV/vague (log amount)	Grants (log amount)	Loans (log amount)
Right-wing government	1.583 (0.317)	0.504 (0.756)	2.705** (0.017)	0.786 (0.574)	3.004** (0.048)
UN voting with China	4.272 (0.227)	5.022 (0.127)	4.719 (0.117)	8.744*** (0.004)	4.718 (0.195)
UNSC member	-2.497* (0.071)	-2.982*** (0.008)	-0.715 (0.579)	-3.891*** (0.000)	-0.864 (0.514)
Taiwan recognition	-10.023*** (0.000)	-8.908*** (0.000)	-4.298*** (0.001)	-7.414*** (0.000)	-5.385*** (0.000)
Trade with China (log)	0.673* (0.096)	0.622 (0.115)	0.793*** (0.006)	0.324 (0.338)	0.723* (0.071)
Oil dummy	1.798 (0.288)	-0.516 (0.755)	3.078** (0.014)	0.889 (0.469)	2.007 (0.207)
Debt/GDP	-0.003 (0.594)	-0.004 (0.582)	-0.016*** (0.000)	0.003 (0.575)	-0.017** (0.012)
Polity	0.059 (0.618)	0.069 (0.519)	-0.015 (0.850)	0.088 (0.330)	-0.026 (0.813)
Control of corruption	-1.162 (0.202)	-0.267 (0.749)	-2.408*** (0.006)	-1.292 (0.129)	-1.368 (0.175)
GDP per capita (log)	-2.387*** (0.006)	-1.876** (0.027)	-2.320*** (0.000)	-1.774** (0.013)	-1.669 (0.117)
Population (log)	-0.682 (0.223)	-0.339 (0.526)	-0.702* (0.096)	-0.221 (0.654)	-0.699 (0.291)
Affected from disasters (log)	0.032 (0.645)	0.014 (0.834)	0.027 (0.684)	0.049 (0.442)	-0.010 (0.901)
English language	3.626*** (0.002)	3.850*** (0.001)	2.665*** (0.000)	3.296*** (0.003)	3.088*** (0.002)
DAC OF (log, residuals)	0.541*** (0.005)	0.467** (0.045)	0.295** (0.041)	0.390** (0.047)	0.328** (0.035)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.27	0.20	0.27	0.18
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

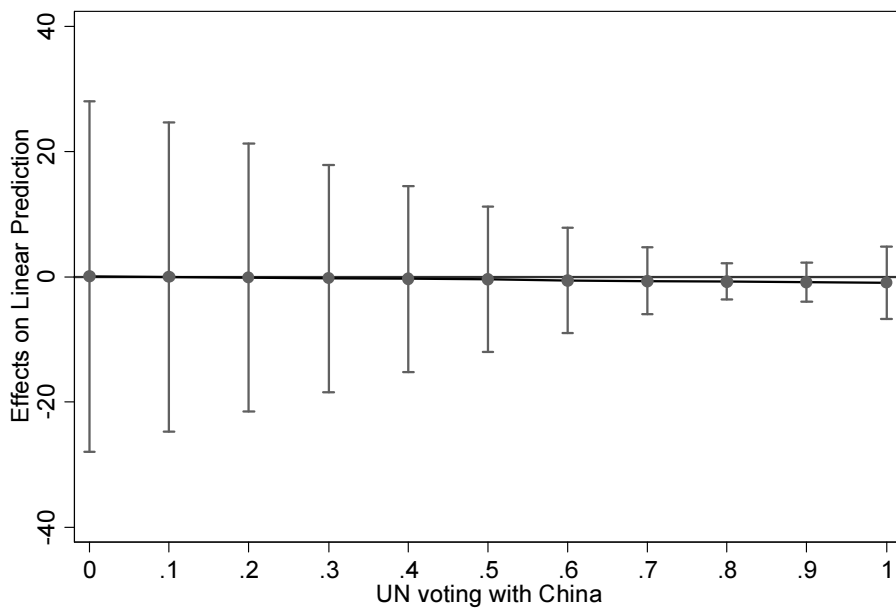
Notes: OF—Official Finance; ODA—Official Development Assistance; OOV—Other Official Flows; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level

Figure D.1. Average marginal effects of UNSC membership as a function of UNGA voting (with 95% confidence intervals)

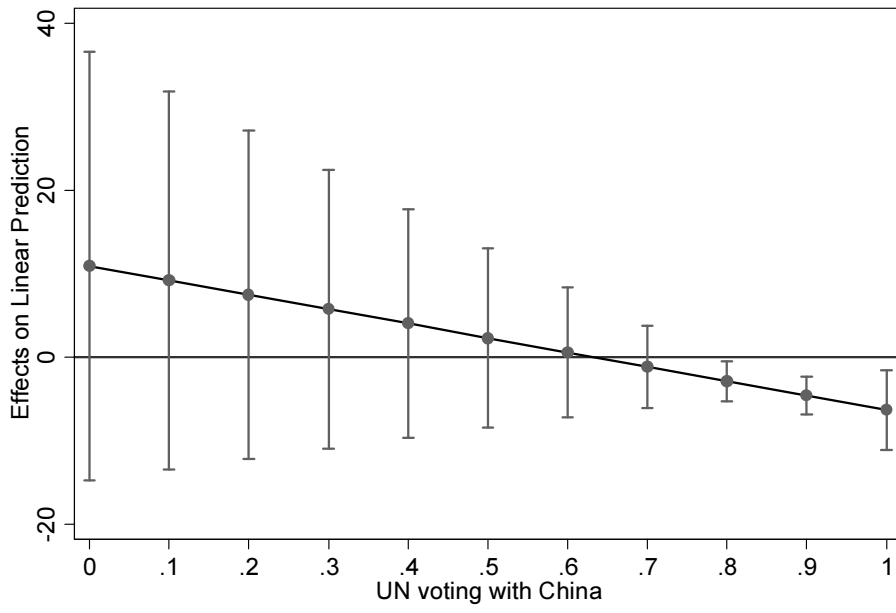
(a) ODA-like flows



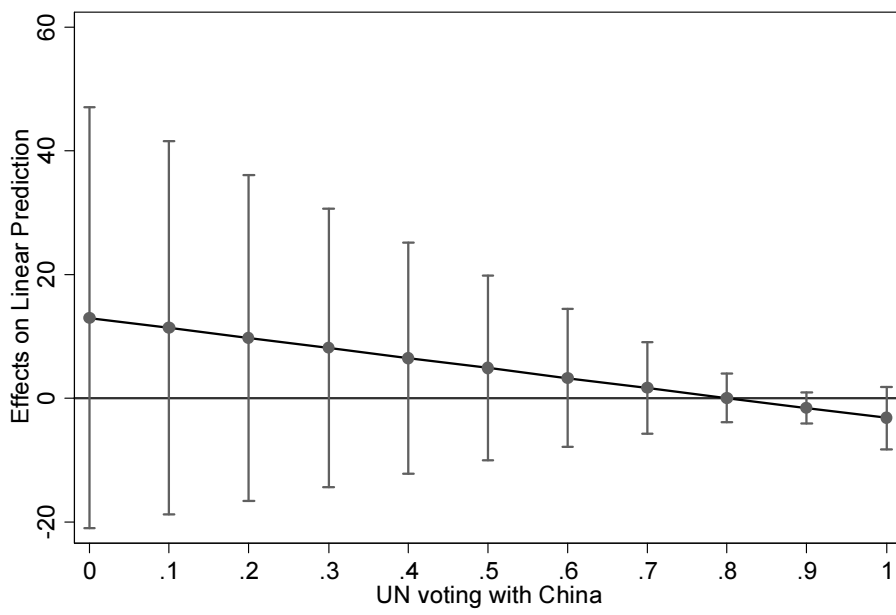
(b) OOF-like flows



(c) Grants



(d) Loans



Appendix E. Sectoral Disaggregation

This appendix explores the sectoral allocation of Chinese official flows and finds several interesting results supporting our hypotheses. The table below shows, as one might expect, that Humanitarian OF is driven by the number of people affected by disasters in recipient states. In contrast, allocation of Chinese OF to social, economic and production sectors is highly correlated with whether a recipient recognizes Taiwan as a sovereign state. Only finance allocated to the social sector (which includes “aid” used to build presidential palaces, stadiums, schools and hospitals) increases with higher voting alignment with China in the UN General Assembly. Unsurprisingly, flows to economic and production sectors decrease with larger levels of recipient debt. Chinese financing for projects in production sectors increases as recipients trade more with China. These sectoral patterns conform to the intuition of the broader argument that different flows are means to different strategic ends.

Table E.1. Allocation of China's development finance by sector (financial value, 2000-2012,

	OLS				
	(1)	(2)	(3)	(4)	(5)
	Total OF (log amount)	Social OF (log amount)	Economic OF (log amount)	Production OF (log amount)	Humanitarian OF (log amount)
UN voting with China	4.068 (0.236)	7.620** (0.016)	4.979 (0.132)	-0.665 (0.762)	1.531 (0.257)
UNSC member	-2.553* (0.067)	-1.241 (0.273)	0.371 (0.820)	-0.255 (0.809)	-0.708* (0.082)
Taiwan recognition	-9.797*** (0.000)	-4.665*** (0.001)	-3.192*** (0.000)	-1.759*** (0.004)	-0.431 (0.194)
Trade with China (log)	0.612 (0.128)	0.432 (0.255)	0.607* (0.098)	0.525*** (0.002)	0.134 (0.174)
Oil dummy	2.109 (0.219)	1.270 (0.452)	2.219 (0.174)	-1.139 (0.209)	0.081 (0.892)
Debt/GDP	-0.004 (0.542)	0.000 (0.953)	-0.015** (0.010)	-0.006* (0.090)	-0.001 (0.559)
Polity	0.084 (0.408)	0.133 (0.196)	0.156* (0.060)	0.009 (0.847)	-0.009 (0.773)
Control of corruption	-1.142 (0.215)	-1.453 (0.196)	-2.502*** (0.007)	-0.471 (0.439)	-0.468 (0.265)
GDP per capita (log)	-2.385*** (0.007)	-1.366* (0.099)	-1.737* (0.060)	-0.685 (0.108)	-0.090 (0.792)
Population (log)	-0.621 (0.258)	-0.328 (0.500)	-0.545 (0.326)	0.031 (0.908)	-0.114 (0.580)
Total affected from disasters	0.029 (0.669)	0.008 (0.912)	-0.050 (0.516)	0.001 (0.980)	0.084** (0.028)
English language	3.866*** (0.001)	3.749*** (0.003)	3.823*** (0.000)	1.243** (0.037)	-0.073 (0.828)
DAC ODA (log, residuals)	0.535*** (0.005)	0.342* (0.096)	0.264 (0.129)	0.107 (0.379)	0.055 (0.280)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.28	0.19	0.17	0.10	0.06
Number of countries	50	50	50	50	50
Number of observations	644	644	644	644	644

Notes: OF—Official Finance; p-values in parentheses; * (**, ***) significant at the ten- (five-, one-) percent level