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, Michael J. Tierney

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" results 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 forms of Chinese official financing. Our results suggest Beijing's motives may not be substantially different from those shaping the allocation of Western official finance. Our data and findings also address the need for better measures of an increasingly diverse set of non-Western financial activities that are neither well understood nor systematically tracked by the Western-led regime for international development finance.

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

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AidData – a joint venture of the College of William and Mary, Development Gateway and Brigham Young University – is a research and innovation lab that seeks to make development finance more transparent, accountable, and effective. Users can track over $40 trillion in funding for development including remittances, foreign direct investment, aid, and most recently US private foundation flows all on a publicly accessible data portal on AidData.org. AidData's work is made possible through funding from and partnerships with USAID, the World Bank, the Asian Development Bank, the African Development Bank, the Islamic Development Bank, the Open Aid Partnership, DFATD, the Hewlett Foundation, the Gates Foundation, Humanity United, and 20+ finance and planning ministries in Asia, Africa, and Latin America.

Contents

1. Introduction

The conventional wisdom among Western policymakers and pundits claims that non-Western donors are less altruistic and less "development-oriented" than their Western counterparts.[1] Critics claim that non-Western donors use their largesse to curry political favor with the leaders of developing countries, secure unfair commercial advantages for their domestic firms, and prop up corrupt and undemocratic regimes with natural resource endowments.[2] During her 2012 trip to Senegal, then-US Secretary of State Hillary Clinton made a thinly veiled criticism of Chinese development finance in 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."[3]

Yet the few studies that subject these claims to empirical scrutiny arrive at more conditional conclusions. The weight of existing evidence from cross-national aid allocation research suggests non-Western donors are not significantly more self-interested than their Western counterparts.[4]

This gap between popular perceptions and the available empirical record presents a puzzle: why are the motives of non-Western donors seen as substantially different from those of Western donors? In this research note, we argue that the absence of granular data and inadequate attention to different types of official financing has cemented this gap and skewed debates in unproductive ways.[5] By disaggregating state financing into its constituent parts and separately analyzing different types of official financial flows (e.g., grants vs. loans), we demonstrate that informational scarcity and unsystematic measurement reinforce misperceptions about non-Western financiers and their policy behavior.

These classification and measurement errors 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)[6] largely comply with a basic set of voluntary reporting norms, many of the 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 after World War II to

[1] See, for example, Alden 2005; Tull 2006; Naím 2007; Lum et al. 2009; Halper 2010.
[2] See, for example, Naím 2007.
[3] French 2014.
[4] See, for example, studies on Arab donors (Neumayer 2003a, 2004), China (Dreher and Fuchs 2015), Turkey (Kavaklı 2013), and a larger set of non-DAC donors (Dreher, Nunnenkamp and Thiele 2011), but also Fuchs and Vadlamannati (2013) on India.
[5] 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) explain, many studies of Chinese and other non-Western aid are guided by motives other than the pursuit of scientific knowledge.
[6] The Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) was established in the 1960s to help establish best-practices and coordinate the development activities of its members.

track overseas development finance activities.[7] Consequently, there is a growing chasm between the de facto suppliers of development finance and the international reporting regime in place to track the allocation and impact of their activities.[8]

OECD-DAC member states benefit from a common set of development finance definitions and categories, reporting and differentiating between their official development assistance (ODA) flows and other official flows (OOF). ODA includes flows 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. Other official flows are also funded by government agencies but do not qualify as ODA because they are not primarily intended for recipient development or they are not sufficiently concessional.[9] In contrast, many non-DAC suppliers of development finance do not use these definitions of ODA and OOF, or comply with DAC reporting norms. The absence of common definitions and consistent data has led many analysts to draw "apples-to-oranges" comparisons—or, perhaps more appropriately, "apples-to-dragon fruits" comparisons—between Western and non-Western "aid," thereby impeding knowledge accumulation related to the nature, allocation, and effects of non-Western development finance.[10]

In this paper, we focus on China, the most important non-Western provider of development finance, and demonstrate that ODA and OOF from the Chinese government are means to different ends. Since ODA is more concessional than other types of official financing, we expect that states will use it to buy political influence abroad. Less concessional forms of official support, on the other hand, are provided on closer-to-market-terms and we therefore expect such flows to primarily advance the economic interests of state sponsors. If these two hypotheses find empirical support, then it would be reasonable to conclude that the motivational framework guiding non-Western donors is broadly similar to that of Western donors.

The absence of sufficiently granular and comprehensive data has made it impossible to test these hypotheses until now. To correct this problem, we have developed an open-source data collection technique—AidData's 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.[11] This dataset makes it possible to distinguish between Chinese-financed ODA projects

[7] See, for example, Barder 2011.
[8] Muchapondwa et al. forthcoming.
[9] For more on the definition of OOF, see http://www.oecd.org/dac/stats/methodology.htm; accessed 12 November 2013 and 14 April 2014).
[10] Bräutigam, 2009, 2010; Strange et al. forthcoming.
[11] 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. However, in this paper, we omit 2013 data from our analysis since it is possible that the TUFF methodology's reliance on open sources may lead to downwardly

and more market-based forms of Chinese financing abroad (i.e., OOF). The data also enable comparisons between grants and loans and across major sectors. Our results 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 promote the economic interests of the Chinese state as well as Chinese firms operating abroad.

We proceed as follows. First, we provide a theory for how different flow types 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": A Flow Type-Specific Theory of State Financing to Developing Countries

Over the last several decades, a consensus has emerged that donor interests and recipient needs shape the cross-country allocation of aid.[12] By contrast, the literature on private commercial flows shows that market size, political stability, rule-based governance, repayment capacity of the borrower, and expected returns influence the decisions of lenders and investors.[13] We therefore expect less concessional forms of Chinese official financing to be shaped by factors that are similar to those guiding private commercial flows from Western countries, with the important caveat that the Chinese government has greater influence over the allocation of such financial flows than Western governments do.[14]

2.1 The Role of Foreign Policy Interests

Numerous empirical studies in the aid literature support the conclusion that political interests drive aid allocation decisions.[15] It is therefore not unreasonable to expect that, like many Western governments, China and other non-Western donors use foreign aid to advance their foreign policy interests. Indeed, China's foreign aid is tied to the recipient country's stance on the "One-China" policy (i.e., whether it recognizes the government in Beijing or Taipei as representing China).[16]

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biased financial and project number estimates in more recent years (Strange et al. forthcoming). For more details on AidData's TUFF methodology, see Strange et al. 2015.

[12] See Morgenthau 1962; McKinley and Little 1979; Alesina and Dollar 2000; Neumayer 2003b; Kuziemko and Werker 2006, among many others.

[13] See, for example, Alesina and Dollar 2000; Jensen 2003.

[14] See Chen and Orr 2009; Cheung et al. 2012; Li et al. 2013.

[15] See, for example, Schraeder, Hook and Taylor 1998; Kuziemko and Werker 2006; Van der Veen 2011; Vreeland and Dreher 2014.

[16] See, for example, Rich 2009.

We argue that the ability of financial flows to "buy" policy concessions from developing countries increases with the degree of concessionality of the financing used for a development project. Put another way, for a given financial commitment, the larger the grant element, the larger the "favor" a donor can expect in return.[17] Hence, ODA flows are more likely to be designed to achieve foreign policy goals. Based on the same reasoning, we expect the allocation of grants to be driven to a larger extent by foreign policy motives than loans. Taken together, we will test the following hypothesis:

> Hypothesis 1: Chinese ODA flows are guided more by foreign policy interests than other (less concessional) forms of state financing, and the same should hold true for grants compared to loans.

2.2 The Role of Economic Interests

In contrast to politically driven ODA flows, less concessional forms of official financing are more market-based and should be tied closely to economic considerations. This should be particularly true for China given its global economic posture. China is the world's single largest exporter of capital, and the lion's share of its foreign exchange reserves are invested in sovereign debt securities of developed countries, making Beijing vulnerable to risks associated with economic conditions in the United States and the European Union. As such, China has a compelling interest to invest foreign exchange reserves in economic sectors and commercial activities that will deliver strong returns.[18] The China Exim Bank and the China Development Bank, two major sources of Chinese official financing to Africa, are "policy banks" with clear links to the government. However, they do prioritize "bankable" projects that deliver strong returns and they screen loans based on commercial criteria.[19] Field research reveals 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."[20]

In addition to the economic returns that China hopes to reap on its investments, some researchers argue that China's desire for resource security may be a major driver of Chinese aid and other financial flows to

[17] See Dreher et al. 2008 for a discussion why grants are commonly used to obtain political favors. For theory on aid as exchange see Bueno de Mesquita and Smith 2007. For our case, aid distributed through Chinese ministries is closer to political decision-making processes than allocation decisions made through its policy banks, which tend to allocate OOF. See Sun 2014.
[18] Corkin 2011; Yu 2013.
[19] Corkin 2011;, Bräutigam 2011c; Sun 2014. 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."
[20] See Corkin 2011: 72. China Development Bank loans are also offered at LIBOR plus a risk premium, and this margin purportedly takes into account a similar set of factors. See Downs 2011; Bräutigam 2011b; Gallagher et al. 2012.

resource-rich African nations.[21] A 2009 Congressional Research Service (CRS) study concluded that "China's foreign aid is driven primarily by the need for natural resources."[22] The Chinese government flatly rejects the claim that its aid program is designed to secure access to other countries' natural resources.[23] As we suggest below, part of this discrepancy might reflect disagreements over what is being counted.

Besides state-centric considerations, Chinese official financing also promotes exports and stimulates business for Chinese firms in recipient countries.[24] Most Chinese government loans are "tied" in the sense that borrowers are incentivized to purchase Chinese goods and services.[25] Previous research suggests that Chinese companies involved in projects backed by official financing can make modest profits.[26] However, official financing purportedly plays a more important role by allowing Chinese firms to gain a foothold in new markets where they can export goods and services and secure future contracts.[27] As such, we expect commercial interests to heavily influence the allocation of less concessional forms of Chinese official financing, which offer future opportunities for private firms to generate profit and market share.

> Hypothesis 2: Less concessional forms of official financing (OOF flows) are driven by commercial interests—as evidenced by China's trade pattern, recipient country natural resource wealth and loan repayment capacity—to a greater extent than ODA flows. Similarly, we expect commercial motives to drive the allocation of loans more than grants.

2.3 The Role of Governance and Institutions

China claims to follow a policy of non-interference in the domestic politics 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.[28] thus prompting the claim that Chinese aid props

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[21] Mohan and Power 2008; Marysee and Geenen 2009; Taylor 2009; Vines et al. 2009; Berthélemy 2011.
[22] Lum et al. 2009: 5. Similarly, 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."
[23] Provost 2011; State Council 2011. Elsewhere, we have developed and tested an econometric model of Chinese aid allocation—drawing on novel sources of aid information from media reports, CIA intelligence reports, the World Food Programme, the China Commerce Yearbook, among others—and found no robust evidence that China's aid allocation is driven by natural resource endowments (Dreher and Fuchs 2015).
[24] China Exim Bank 2008; Bräutigam 2011a, 2011b. Some Chinese companies are even allowed to propose overseas development projects for state financing. See Chen and Orr 2009; Bräutigam 2009.
[25] Huang 2015.
[26] Bräutigam 2009; Huang 2015.
[27] Chen and Orr 2009. 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).
[28] Kurlantzick 2006.

up rogue regimes and delays much-needed governance reforms.[29] These claims find mixed support among the few empirical studies that exist.[30]

As with political and commercial interests, we expect to find different allocation patterns for more and less concessional forms of official financing based on recipient institutional quality. 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 yield attractive returns. Thus, in states where China provides less concessional forms of official finance, we expect it will favor recipient countries with higher levels of institutional quality—a factor that strongly influences repayment rates.[31] On the other hand, consistent with its own official rhetoric, we expect China to disregard institutions in recipient states when allocating ODA. Thus, contrary to the popular "rogue aid" hypothesis, we do not expect either form of Chinese official financing to favor countries with poor institutions. In summary:

> Hypothesis 3: Less concessional forms of Chinese official financing will favor countries with good institutions, while Chinese ODA flows will be provided independently of institutional quality in recipient countries.

3. Data

3.1 China's Official Finance to Africa

China does not report to—or rely upon the development finance categories and definitions of—the OECD-DAC. Nor does it systematically publish project-level data and not even annual bilateral data of its official financing activities abroad. We thus rely on AidData's Chinese Official Finance to Africa database (version 1.2) introduced by Austin Strange and co-authors, which includes 2,546 projects in 50 recipient countries in Africa over the 2000-2012 period.[32] As this database is based on the information available

[29] Naím 2007; Traub 2006; Pehnelt 2007; Collier 2007; Mwase 2011. 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."
[30] Bermeo 2011; Acemoglu and Robinson 2012; Mthembu-Salter 2012; Kersting and Kilby 2014; Dreher and Fuchs 2015; Bader 2015; Bader forthcoming. Consistent with this logic, Dreher et al. 2015 find that Chinese aid is disproportionately allocated to the birth regions of African leaders.
[31] Reinhart and Rogoff 2004; Faria and Mauro 2009.
[32] Strange et al. forthcoming. The numbers exclude projects coded as "Official Investment" or "Military Aid (without development intent)." Note also that we only include bilateral flows—that is, we exclude projects to any group of countries where no breakdown on the national destination is available. We also exclude South Sudan, which became an independent state on July 9, 2011. Finally, although the latest version of this database covers data for 2013, we decided to exclude these 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. forthcoming).

through open sources, 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, debt relief, and military aid under the condition that these projects are provided with development intent.[33] "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. 11.5 percent of these projects remain unverified pledges and are thus excluded from the econometric analysis below.[34] We analyze the remaining 2,043 projects that have at least reached commitment status. By doing so, we seek to achieve comparability with aid commitments as defined by the OECD-DAC.

Our main dependent variable is the (logged) monetary value of projects committed to a recipient country in a given year (in constant 2009 US$).[35] However, this measure comes with the caveat that 41% of the projects lack information on their respective financial value. Therefore, we also show results with the total number of projects committed to a particular recipient country with the obvious disadvantage that we do not control for the size of these projects in these regressions. 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 (grants and loans) to analyze how different flows are used to pursue different goals.

[33] Our "ODA-like" category aligns closely but imperfectly with the OECD criteria for ODA. The underlying source material used to generate these categorizations is not always sufficiently detailed to determine whether a given project qualifies as ODA (see Strange et al. 2015 for details). As such, we use a third residual category (called 'Vague Official Finance') for projects that have insufficient information to make an ODA-like or OOF-like determination.
[34] Pledges are defined as verbal, informal agreements while commitments are defined as formal written, binding contracts (Strange et al. forthcoming).
[35] We added one before conducting logarithmic transformations.

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

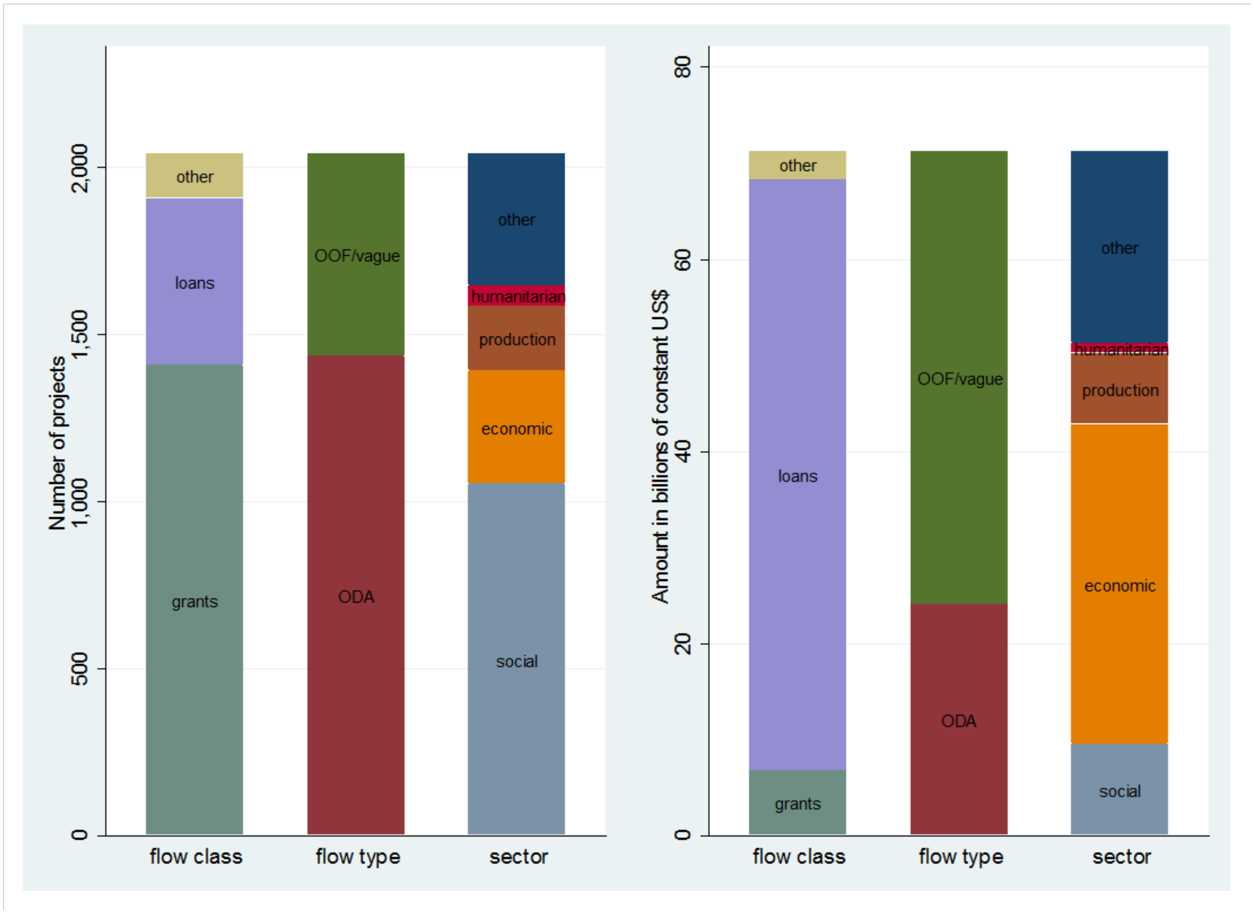

Figure 1 highlights important features of our data on Chinese official financing to Africa. It represents all 2,043 project records. One can see in the first column that grants constitute a bit more than two thirds of the project records but only about a tenth of total Chinese official financing to Africa in monetary terms. Chinese loans show the opposite picture: these projects constitute only roughly a quarter of total project records but they represent 86 percent of the total dollars committed. The distribution of ODA-like and OOF-like projects and 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, these projects provide significantly less funding than economic projects, including transport and energy infrastructure.

3.2 Explanatory Variables

To determine whether ODA-like flows and other types of official finance are used to pursue China's foreign policy objectives (Hypothesis 1), we analyze the voting behavior of recipient countries in the

United Nations General Assembly (UNGA) and their stance towards the One-China policy. Indicators of UNGA voting similarity are frequently used in the aid allocation literature and beyond to measure political alignment between states.[36] We use the share of instances in which China and the recipient government show the same voting behavior. Specifically, we use Christopher Kilby's refined version of Anton Strezhnev and Eric Voeten's UN voting data to compute a voting similarity measure that ranges between zero and one.[37] To test the role of a country's stance on the One-China policy, we employ a binary indicator variable that takes a value of one if a recipient country maintains diplomatic relations with the government in Taipei (Taiwan) rather than Beijing.[38]

To explain how commercial motivations might shape the cross-national distribution of Chinese official finance (Hypothesis 2), we employ three measures. 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$).[39] Similarly, to account for China's potential interest in securing access to natural resources, we include the logged value of energy depletion in a given country.[40] Finally, we use a country's debt-to-GDP ratio to account for creditworthiness. 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, a simple and commonly used measure for creditworthiness.[41]

To test for the potential effects of recipient institutional quality (Hypothesis 3), we employ the polity2 variable from the Polity IV Project.[42] 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.[43] 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.

We add several control variables to the model that may influence the allocation of Chinese official financing commitments. As a control variable for the level of need in the recipient country, we use average per-capita income. Poorer countries should receive more official financing if China allocates on the basis

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[36] See, for example, Andersen et al. 2006; Kilby 2009, 2011; Dreher and Fuchs 2015. The findings reported below also hold when we focus on "important votes" (as defined by the U.S. State Department) rather than all votes.
[37] Kilby 2009; Strezhnev and Voeten 2012. Under this scheme, 1 = "yes" or approval for an issue; 3 = "no" or disapproval for an issue. Abstention and absence are counted as half-agreements with a yes or no vote. See also Thacker 1999.
[38] Data are from Rich 2009 (Authors' update). We thank Timothy Rich for sharing these data.
[39] Data on trade flows were obtained from the United Nations Comtrade database, accessed at http://wits.worldbank.org/wits/ on 2 May 2014.
[40] Data are taken from World Bank 2013.
[41] Data are from Abbas et al. 2010.
[42] Data are from Marshall et al. 2013. 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; Dreher and Langlotz 2015).
[43] Dreher and Fuchs 2015.

of need. We also control for population size of the host country. In line with allocation studies for other donors, we expect that more populous countries will receive more Chinese official financing. Both variables were obtained from the World Bank's World Development Indicators (WDI).[44] We also include the total number of people affected by disasters in the recipient country, as reported on the International Disaster Database EM-DAT.[45] We expect Chinese ODA flows in general—and humanitarian assistance in particular—to increase with the number of disaster victims. Further, we add a binary indicator that takes a value of one if English is the official language.[46] AidData's Chinese Official Finance to Africa dataset (version 1.2) draws primarily upon Chinese and English-language sources. Therefore, the dataset may underrepresent China's development finance activities in states where other languages are more prominent in media outlets, business relations and politics. In particular, we expect a negative bias against Francophone and Lusophone African states. Finally, we control for potential geo-strategic competition among donors by using the residuals of an OLS regression of (log) net ODA received from all DAC donors (in constant 2009 US$) on all other explanatory variables.

We lag the time-varying explanatory variables by one year to mitigate endogeneity concerns. The exception is the variable capturing the total number of people affected from natural disasters, as disasters are largely exogenous to aid and observation suggests rapid humanitarian expenditures in the aftermath of such events.

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} is one of our two variables that measure China's development finance to country i in year t; $political_{it}$ is a vector of the two political variables introduced above (H1); $economic_{it-1}$ captures the three economic variables presented (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 estimate our models with Ordinary Least Squares (OLS). This approach comes with the advantage that the resulting coefficients are relatively easy to interpret. We first run pooled OLS regressions to exploit variation across recipient countries. In a second step, we add country-fixed effects to the

[44] World Bank 2013.
[45] EM-DAT 2014.
[46] Data are from Mayer and Zignago 2011.

regression equation identified above. However, while we report these fixed-effects regressions as a robustness check, 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.

4.1 Main Results

While Table 1 shows our results when using the (logged) monetary value of Chinese project commitments as our dependent variable, Table 2 uses total project numbers for comparison. Column 1 in Tables 1 and 2 displays models that seek to explain the cross-country allocation of *total* Chinese official financing. Table 2 indicates that the total number of projects increases with more corruption and more trade with China, but decreases when an African country has a higher level of outstanding debt, at least at the ten-percent level of significance.[47] Countries that recognize Taiwan receive fewer official finance projects, at the one-percent level of significance. Monetary amounts of official financing (Table 1) show similar correlations with these variables, but they are statistically weaker, with Taiwan recognition being the only variable of interest achieving statistical significance at conventional levels. Thus, before unpacking the black box of Chinese official financing into different types of financial flow, our results on the drivers of "Chinese aid" are generally consistent with public perceptions. In quantitative terms, we find that countries that recognize Taiwan receive 2.7 fewer projects per year; 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; an increase in logged trade with China by one standard deviation increases the annual number of Chinese development projects by 0.9; and an increase in debt as a share of GDP by 200 percentage points reduces the annual number of Chinese development projects by one.

In the next set of columns, we turn to our hypotheses, testing whether and to what extent these aggregate results are driven by more or less concessional flows of official financing. Columns 2 and 3 of Tables 1 and 2 split official financing into ODA-like and OOF-like flows; and columns 4 and 5 compare the commitments of grants to those of loans. The results broadly corroborate our hypotheses, but to varying degrees. First, with respect to foreign policy interests (H1), there is a statistically significant link between the receipt of highly concessional flows—measured in terms of the aggregate financial value of ODA-like commitments and grants (Table 1) as well as by the number of ODA-like projects and grants (Table 2)—and voting in line with China in the UN General Assembly. An increase in voting similarity by 0.1 increases ODA by more than 86 percent, and grant funding by 159 percent. The annual number of ODA

[47] We tested whether exports from China (recipient imports) are driving the connection between Chinese OOF-like commitments and commercial interests, but found no evidence for this. It rather seems that the trade finding is driven by Chinese imports (results available on request).

and grant projects increases by roughly two. In contrast, we find no statistical relationship between UN voting and our measures of OOF-like flows or loans.[48]

Additionally, we find almost universal support across models for the notion that China provides less official financing to African states that recognize Taiwan.[49] 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.[50] 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. While short-term political alliances—proxied with voting behavior in the UNGA—only affect ODA, respecting the "One-China-Policy" is much more important to secure ODA when compared to its role in OOF.

Second, we find support for our hypothesis that less concessional forms of official finance are influenced to a larger degree by commercial considerations (H2). Commitments of OOF-like financing are significantly and positively correlated with both trade and energy depletion, while this is not true for ODA-like flows (Table 1). Quantitatively, a one-percent increase in trade with China (energy depletion) increases OOF by 0.9 (0.1) percent.[51]

We find further support for Hypothesis 2 when measuring commercial interests according to a recipient country's creditworthiness. The negative and statistically significant coefficient on OOF-like flows in Tables 1 and 2 and on loans in Table 1 suggests that China prefers less concessional types of Chinese official financing in relatively creditworthy states.[52] Unsurprisingly, no such significant relationship exists for ODA-like flows or grants.[53] Quantitatively, an increase in debt as a share of GDP by one percentage point reduces OOF funding by 1.6 percent. Taken together, these results demonstrate that Chinese

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[48] While the coefficients for ODA and OOF are significantly different from each other at conventional levels in Table 2, they are not in Table 1.

[49] 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 not until after China and Chad re-established diplomatic relations on August 5, 2006. We observe a similar pattern in Liberia.

[50] The coefficients for ODA and OOF are significantly different from each other at the one-percent level in both tables.

[51] 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 (Table 2). When we replace energy depletion by mineral depletion (also from World Bank 2013), we do not find significant effects (results available on request).

[52] This finding is consistent with Huang's (2015) claim that "recipient countries' political stability and good credit standing are emphasized" in the allocation of Chinese government loans.

[53] This finding is broadly 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).

commercial motivations play a role in the allocation of OOF-like flows but not for ODA-like flows, in line with our expectations.[54]

Third, we find no evidence that China's ODA to Africa is tied to domestic political institutions in recipient 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 holds for grants. This outcome confirms our hypothesis that China allocates ODA without considering the quality of governance in potential recipient countries; it is also 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 again find OOF-like flows to be independent of the level of democracy, the highly significant negative coefficient on control of corruption in Tables 1 and 2 shows that these less concessional flows are more likely to go to countries with higher levels of corruption. This is supported by our results on the number of loans in Table 2, at the five-percent level of significance. One potential explanation for this finding is that corruption "greases the wheels" of commerce, 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 they rely on financial modalities, such as commodity-backed loans, that reduce the risks of financial misappropriation, loan repayment delinquency, and default. China typically uses its loans 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 (Brautigam 2011c).

In either case, this finding is inconsistent with our expectation that more rather than less OOF would flow to less corrupt settings. Thus, while we only find partial evidence for Hypothesis 3, our findings refute the popular claim that Chinese "aid" is focused on countries with poor governance. Our findings also help explain why policymakers, journalists, and public intellectuals perceive more "Chinese aid" to be flowing to more corrupt countries. In fact, it is not ODA that flows to such countries but rather OOF, which is not aid in the traditional sense.

Besides testing our three main hypotheses, our model explores several other interesting relationships that shed light on the allocation of Chinese development finance. ODA-like commitments of official finance flow disproportionately to African states with relatively low levels of per-capita income across all sectors. Further, unlike allocation to Western donors, we do not find that more populous recipient countries receive systematically more Chinese official financing and some evidence that more populous countries receive

[54] Note that only the coefficients on debt/GDP in columns 4 and 5 of Table 2 are significantly different from each other, at conventional levels.

fewer projects.[55] Additionally, all regressions in Tables 1 and 2 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 is more likely to reveal Chinese official financing in English-speaking countries than in non-English-speaking countries.[56]

Table 3 includes country-fixed effects for comparison. While the statistically significant relationship between ODA-like commitments and UNGA voting no longer holds, the commitment of grants remains significantly correlated with UNGA voting alignment vis-à-vis China. On the contrary, none of the foreign policy variables are significant in the OOF and loan regressions. Again, this evidence is consistent with our first hypothesis: highly concessional flows are granted to support foreign policy goals. However, when country-fixed effects are included in the model, there is no longer a statistically significant link between OOF-like commitments and Taiwan recognition, which suggests that more market-oriented Chinese official flows are less affected by recipient recognition of Taiwan.[57] In line with previous results in Table 1, creditworthiness as measured by the debt-over-GDP ratio affects OOF negatively but has no statistically significant effect on ODA. Finally, Chinese loan commitments appear to decrease as more individuals in a recipient country are impacted by natural disasters. This supplements our finding that more commercially-driven flows are likely to be influenced by a range of risks that could endanger economic investments. While being substantially weaker compared to our results in Table 1 above, as one would expect, these results are in line with our hypotheses.

Finally, we explore the sectoral allocation of Chinese official flows and find several interesting results supporting our hypotheses. Table 4 shows, as one might expect, that Humanitarian OF is driven almost entirely 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.

[55] This is consistent with findings by Dreher and Fuchs 2015 using different data sources.
[56] The relative ease of communication between Chinese officials, aid workers, and their African counterparts in English-speaking environments might produce the same result.
[57] Note, however, that this result is driven by a small number of within-country changes over time.

5. Conclusions

Despite a burgeoning policy literature on Chinese economic statecraft,[58] the nature, distribution, and effects of state financing from China have not benefitted from systematic empirical analysis because of data scarcity and conceptual confusion. This research note represents an attempt to correct this problem. We have explored whether different motives guide different types of Chinese official finance flows. We hypothesized that Chinese ODA is largely motivated by foreign policy goals, while OOF is more commercially-driven. We also hypothesized that China is more likely to care about the quality of a recipient's domestic institutions in its allocation of OOF since China has a greater interest in securing repayments on those investments.

To test these predictions, we examined relationships between Chinese development finance committed to African countries over the 2000-2012 period and a range of political and economic variables. Our results suggest Chinese ODA flows are linked to foreign policy interests, as measured by China's voting alignment with African countries in the UN General Assembly and recipient positions vis-à-vis the One-China policy. Our findings do not support critics of China who claim its aid, in the strictest sense of the term (i.e., ODA), is predominantly motivated by natural resource acquisition interests. Nor does China seem to take into account the institutional quality or regime type of potential aid recipient countries when allocating its ODA budget. This finding is actually consistent with the Chinese government's claim that it does not interfere in the internal affairs of its partner countries. We also show that Chinese ODA flows to Africa are strongly oriented towards poorer countries, which provides evidence that Beijing also considers humanitarian needs when making allocation decisions. The findings, when taken together, suggest that Chinese aid allocation practices are not too dissimilar from those of Western donors.

By contrast, we find that less concessional Chinese official financing flows are influenced by natural resource endowments in recipient countries – a motivation that is often incorrectly associated with Chinese "aid." This finding calls attention to the importance of disaggregating different forms of official financing. In the absence of disaggregated data and analysis, African politicians, Western politicians, journalists, public intellectuals, policy analysts, and scholars will likely continue to conflate Chinese aid with other types of state financing from China and thus draw incorrect inferences about its allocation and effects.

These results beg the larger question of why China does not publish its official financing data in a way that would allow researchers both in and outside of China to analyze its allocation and effects. By

[58] For a few recent examples, see Drezner 2009; Reilly 2012; Fuchs and Klann 2013; Flores-Macías and Kreps 2013; Kastner forthcoming; and Strüver 2014.

releasing project-level data, the Chinese authorities could dispel many of the myths and criticisms reviewed earlier in this paper that continually surface in international media outlets. However, they do not, which suggests that negative media coverage may be less of a concern to Beijing than other factors that provide disincentives for publishing detailed official financing data. Such factors include the government's concern over shaky domestic political support for the country's foreign aid program,[59] and its desire to partially reform international norms in an increasingly multi-polar world rather than integrate into the prevailing system constructed by Western powers.[60]

China's reluctance to disclose its overseas development activities is symptomatic of a broader challenge. Non-Western states provide a growing proportion of global development finance. There are reasons to believe this shift may impact political and economic outcomes in developing countries (Hernandez 2015) and even reshape the existing global development finance architecture and foundations of international order (Woods et al. 2013). Yet many non-DAC suppliers 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. Those who wish to better understand the causes and consequences of non-DAC development finance also face a dilemma. New methods of collecting data and cross-walking financial flows from DAC and non-DAC sources to common conceptual categories are urgently needed. AidData's Tracking Underreported Financial Flows (TUFF) initiative represents one effort to address this problem (Strange et al. forthcoming); however, more research will be needed to track and assess the increasingly diverse activities of non-DAC suppliers of development finance.

[59] When the popular Wangyi ("NetEase," or (网易)) domestic news site ran a story on the initial release of AidData's China's Official Finance to Africa Dataset in mid-2013, it was the most popular news item on their website that day throughout mainland China—both in terms of comments and "dinging" (similar to 'Likes'). Over 2,500 visitors commented and almost 120,000 users participated in the online discussion by either commenting or "dinging." Much of the commentary questioned the need for official Chinese overseas spending with so many pressing domestic issues, like school and health fees, and domestic corruption. See also Cheng and Smyth (2014) on Chinese public opinion on Chinese aid.

[60] This issue has been explored by many scholars. For recent analyses, see Buzan 2010; Schweller and Pu 2011.

Tables

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

	(1) Total OF (log amount)	(2) ODA (log amount)	(3) OOF/vague (log amount)	(4) Grants (log amount)	(5) Loans (log amount)
UN voting with China	5.367	6.225*	5.195	9.504***	5.264
	(0.144)	(0.059)	(0.114)	(0.002)	(0.146)
Taiwan recognition	-9.553***	-8.735***	-3.644***	-7.114***	-4.788***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Trade with China (log)	0.61	0.523	0.794**	0.234	0.692
	(0.174)	(0.197)	(0.019)	(0.491)	(0.142)
Energy depletion (log)	0.1	0.051	0.098*	0.077*	0.066
	(0.123)	(0.388)	(0.076)	(0.067)	(0.310)
Debt/GDP	-0.004	-0.006	-0.016***	0.003	-0.017**
	(0.582)	(0.454)	(0.003)	(0.676)	(0.018)
Polity	0.081	0.078	0.023	0.103	0.009
	(0.438)	(0.429)	(0.762)	(0.226)	(0.931)
Control of corruption	-1.009	-0.001	-2.445***	-1.093	-1.455
	(0.317)	(0.999)	(0.006)	(0.193)	(0.167)
GDP per capita (log)	-2.644**	-2.498**	-2.084***	-2.189***	-1.509
	(0.011)	(0.012)	(0.006)	(0.005)	(0.189)
Population (log)	-0.81	-0.7	-0.555	-0.399	-0.578
	(0.193)	(0.238)	(0.253)	(0.454)	(0.416)
Total affected from disasters	0.02	0.022	0.003	0.044	-0.029
	(0.777)	(0.758)	(0.962)	(0.500)	(0.718)
English language	3.674***	4.131***	2.587***	3.435***	3.102***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
DAC ODA (log, residuals)	0.969	1.136**	0.538	1.041*	0.396
	(0.127)	(0.041)	(0.360)	(0.054)	(0.573)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.27	0.26	0.19	0.26	0.17
Number of countries	50	50	50	50	50
Number of observations	631	631	631	631	631

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

	(1) Total OF (number)	(2) ODA (number)	(3) OOF/vague (number)	(4) Grants (number)	(5) Loans (number)
UN voting with China	1.844	2.007*	-0.163	2.198*	-0.28
	(0.272)	(0.064)	(0.875)	(0.080)	(0.787)
Taiwan recognition	-2.676***	-2.113***	-0.563***	-2.013***	-0.496***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.007)
Trade with China (log)	0.411**	0.169	0.243	0.162	0.23
	(0.050)	(0.119)	(0.122)	(0.202)	(0.182)
Energy depletion (log)	0.019	0.011	0.009	0.015	0.005
	(0.377)	(0.505)	(0.370)	(0.429)	(0.637)
Debt/GDP	-0.005*	-0.001	-0.003*	-0.001	-0.003
	(0.083)	(0.415)	(0.098)	(0.462)	(0.116)
Polity	0.031	0.021	0.011	0.023	0.003
	(0.350)	(0.468)	(0.435)	(0.393)	(0.858)
Control of corruption	-0.928***	-0.451	-0.477***	-0.487	-0.350**
	(0.008)	(0.109)	(0.004)	(0.115)	(0.043)
GDP per capita (log)	-0.869**	-0.687***	-0.182	-0.697**	-0.168
	(0.014)	(0.005)	(0.293)	(0.017)	(0.430)
Population (log)	-0.404*	-0.321*	-0.083	-0.312*	-0.097
	(0.099)	(0.058)	(0.529)	(0.098)	(0.552)
Total affected from disasters	0.026	0.016	0.01	0.01	0.015
	(0.238)	(0.370)	(0.376)	(0.617)	(0.238)
English language	1.867***	1.482***	0.384*	1.438***	0.383*
	(0.000)	(0.000)	(0.053)	(0.000)	(0.068)
DAC ODA (log, residuals)	0.658**	0.600***	0.058	0.584***	0.035
	(0.011)	(0.000)	(0.750)	(0.000)	(0.839)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.32	0.38	0.14	0.37	0.11
Number of countries	50	50	50	50	50
Number of observations	631	631	631	631	631

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 3. Allocation of China's development finance (financial value, 2000-2012, country fixed effects)

	(1) Total OF (log amount)	(2) ODA (log amount)	(3) OOF/vague (log amount)	(4) Grants (log amount)	(5) Loans (log amount)
UN voting with China	4.006	3.758	3.405	8.523**	5.377
	(0.352)	(0.381)	(0.358)	(0.022)	(0.331)
Taiwan recognition	-6.263*	-5.864***	-2.111	-5.819***	-0.321
	(0.050)	(0.008)	(0.516)	(0.000)	(0.927)
Trade with China (log)	-0.161	0.114	-0.184	-0.138	-0.55
	(0.733)	(0.795)	(0.643)	(0.772)	(0.384)
Energy depletion (log)	0.032	-0.035	0.052	-0.016	0.141
	(0.704)	(0.530)	(0.658)	(0.689)	(0.121)
Debt/GDP	-0.003	-0.006	-0.015*	0.006	-0.006
	(0.742)	(0.578)	(0.063)	(0.416)	(0.667)
Polity	0.14	0.048	-0.088	0.142	0.01
	(0.474)	(0.764)	(0.644)	(0.278)	(0.963)
Control of corruption	0.82	0.292	0.774	0.313	1.014
	(0.701)	(0.893)	(0.610)	(0.847)	(0.590)
GDP per capita (log)	-0.434	-0.872	-1.516	-0.251	-0.063
	(0.759)	(0.600)	(0.397)	(0.877)	(0.979)
Population (log)	2.232	0.04	13.409	-6.944	22.356
	(0.844)	(0.998)	(0.171)	(0.611)	(0.118)
Total affected from disasters	-0.096	-0.047	-0.089	-0.009	-0.160**
	(0.126)	(0.509)	(0.180)	(0.884)	(0.015)
English language	-	-	-	-	-
DAC ODA (log, residuals)	-0.349	-0.16	-0.341	-0.042	-0.864
	(0.628)	(0.799)	(0.686)	(0.943)	(0.353)
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared (within)	0.10	0.09	0.08	0.10	0.11
Number of countries	50	50	50	50	50
Number of observations	631	631	631	631	631

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 4. Allocation of China's development finance (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	5.367	8.654***	5.463	0.547	1.227
	(0.144)	(0.006)	(0.107)	(0.821)	(0.377)
Taiwan recognition	-9.553***	-4.503***	-3.012***	-1.725***	-0.463
	(0.000)	(0.001)	(0.001)	(0.007)	(0.190)
Trade with China (log)	0.61	0.447	0.683	0.515***	0.118
	(0.174)	(0.272)	(0.105)	(0.002)	(0.247)
Energy depletion (log)	0.1	0.079*	0.038	0.067	-0.017
	(0.123)	(0.081)	(0.463)	(0.170)	(0.493)
Debt/GDP	-0.004	0	-0.014**	-0.010***	-0.001
	(0.582)	(0.987)	(0.018)	(0.010)	(0.753)
Polity	0.081	0.129	0.147*	0.017	-0.011
	(0.438)	(0.198)	(0.076)	(0.744)	(0.744)
Control of corruption	-1.009	-1.29	-2.711***	0.119	-0.544
	(0.317)	(0.193)	(0.002)	(0.843)	(0.172)
GDP per capita (log)	-2.644**	-1.667**	-1.39	-1.708***	0.061
	(0.011)	(0.030)	(0.119)	(0.009)	(0.848)
Population (log)	-0.81	-0.587	-0.408	-0.636*	0.008
	(0.193)	(0.256)	(0.506)	(0.078)	(0.968)
Total affected from disasters	0.02	0.012	-0.06	0.024	0.088**
	(0.777)	(0.877)	(0.445)	(0.657)	(0.024)
English language	3.674***	3.650***	3.434***	1.575***	-0.095
	(0.000)	(0.001)	(0.000)	(0.003)	(0.774)
DAC ODA (log, residuals)	0.969	1.189**	0.891	0.468	0.367
	(0.127)	(0.020)	(0.103)	(0.175)	(0.107)
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-Squared	0.27	0.2	0.17	0.11	0.06
Number of countries	50	50	50	50	50
Number of observations	631	631	631	631	631

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

Appendix A

Variables, definitions and sources

Variable name	Definition	Source
Dependent variables		
Total OF (log amount)	(log) OF amount in constant 2009 US$	AidData (Strange et al. forthcoming)
ODA (log amount)	(log) ODA amount in constant 2009 US$	AidData (Strange et al. forthcoming)
OOF/vague (log amount)	(log) OOF/vague amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Grants (log amount)	(log) OF grant amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Loans (log amount)	(log) OF loan amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Total OF (number)	Number of OF projects	AidData (Strange et al. forthcoming)
ODA (number)	Number of ODA projects	AidData (Strange et al. forthcoming)
OOF/vague (number)	Number of OOF/vague projects	AidData (Strange et al. forthcoming)
Grants (number)	Number of OF grant projects	AidData (Strange et al. forthcoming)
Loans (number)	Number of OF loan projects	AidData (Strange et al. forthcoming)
Social OF (log amount)	(log) Social OF amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Economic OF (log amount)	(log) Economic OF amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Production OF (log amount)	(log) Production OF amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Humanitarian OF (log amount)	(log) Humanitarian OF amount in constant 2009 US$	AidData (Strange et al. forthcoming)
Explanatory variables		
UN voting with China	Voting alignment in the UN General Assembly on all votes, lag	Strezhnev and Voeten (2012) (extended by Kilby 2009)
Taiwan recognition	1 if country entertains diplomatic relations with Taiwan, lag	Rich (2009), own update
Trade with China (log)	Bilateral trade (exports plus imports) with China (constant 2009 US$), lag	UN Comtrade via WITS (http://wits.worldbank.org/)
Energy depletion (log)	(log) Adjusted savings: energy depletion (constant 2009 US$), lag	World Bank (2013)
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 (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)
GDP per capita (log)	GDP per capita (constant 2009 US$), lag	World Bank (2013)
Population (log)	Total population size, lag	World Bank (2013)
Total affected from disasters	(log) Total number of people affected from natural disasters	EM-DAT (2014)
English language	1 if English is official language	CEPII (Mayer and Zignago 2011)
DAC ODA (log, residuals)	Residuals from an OLS regression of lagged log total net bilateral aid flows from DAC donors (constant 2009 US$) on all other explanatory variables	Own regressions (ODA data from World Bank 2013)

Notes:
- 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, *total affected from disasters* and *energy depletion* before taking the natural logarithm.

Appendix B

Descriptive statistics

Variable name	Obs	Mean	Std. Dev.	Min	Max
Dependent variables					
Total OF (log amount)	631	10.6	8.5	0.0	22.7
ODA (log amount)	631	8.8	8.2	0.0	21.1
OOF/vague (log amount)	631	5.3	8.1	0.0	22.7
Grants (log amount)	631	7.7	7.8	0.0	20.4
Loans (log amount)	631	5.9	8.5	0.0	22.7
Total OF (number)	631	3.1	3.4	0.0	34.0
ODA (number)	631	2.2	2.3	0.0	14.0
OOF/vague (number)	631	0.9	2.0	0.0	30.0
Grants (number)	631	2.1	2.3	0.0	16.0
Loans (number)	631	0.8	2.1	0.0	33.0
Social OF (log amount)	631	5.9	7.7	0.0	20.6
Economic OF (log amount)	631	4.7	7.9	0.0	21.4
Production OF (log amount)	631	2.0	5.4	0.0	21.6
Humanitarian OF (log amount)	631	0.8	3.3	0.0	20.8
Explanatory variables					
UN voting with China	631	0.8	0.1	0.5	1.0
Taiwan recognition	631	0.1	0.3	0.0	1.0
Trade with China (log)	631	19.1	2.1	12.6	24.5
Energy depletion (log)	631	10.9	12.3	0.0	29.3
Debt/GDP	631	75.3	67.0	0.0	523.4
Polity	631	1.1	5.3	-9.0	10.0
Control of corruption	631	-0.6	0.6	-1.7	1.2
GDP per capita (log)	631	6.7	1.1	4.7	10.1
Population (log)	631	15.9	1.4	13.0	18.9
Total affected from disasters	631	7.1	5.2	0.0	16.5
English language	631	0.4	0.5	0.0	1.0
DAC ODA (log, residuals)	631	0.0	0.7	-4.1	2.4

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

References

Abbas, S. M. Ali, Nazim Belhocine, Asmaa A. ElGanainy and Mark A. Horton. 2010. A Historical Public Debt Database. IMF Working Paper No. 10/245. Washington, DC: International Monetary Fund. Available at http://www.imf.org/external/pubs/cat/longres.cfm?sk=24332.0 (accessed 29 April 2013).

Acemoglu, Daron and James Robinson. 2012. Fancy Schools. *Why Nations Fail* blog. 27 February 2012. Accessed at http://whynationsfail.com/blog/2012/2/27/fancyschools.html

Alden, Chris. 2005. Red Star, Black Gold. *Review of African Political Economy* 32 (104/5): 415-419.

Alesina, Alberto and David Dollar. 2000. Who Gives Foreign Aid to Whom and Why? *Journal of Economic Growth* 5 (1): 33-63.

Andersen, Thomas Barnebeck, Henrik Hansen and Thomas Markussen. 2006. US Politics and World Bank IDA-lending. *Journal of Development Studies* 42 (5): 772-794.

Bader, Julia. 2015. China, Autocratic Patron? An Empirical Investigation of China as a Factor in Autocratic Survival. *International Studies Quarterly* 59: 23-33.

Bader, Julia. Forthcoming. Propping up Dictators? Economic Cooperation from China and its Impact on Authoritarian Persistence in Party and Non-party Regimes. *European Journal of Political Research*.

Barder, Owen. 2011. What Happened in Busan? Weblog post on Owen Abroad. 11 December 2011. Accessed at http://www.owen.org/blog/5131

Bermeo, Sarah Blodgett. 2011. Foreign Aid and Regime Change: A Role for Donor Intent. *World Development* 39 (11): 2021-2031.

Berthélemy, Jean Claude. 2011. China's Engagement and Aid Effectiveness in Africa. African Development Bank Working Paper #129. Tunis, Tunisia: African Development Bank

Bräutigam, Deborah. 2009. *The Dragon's Gift: the Real Story of China in Africa*. Oxford, UK: Oxford University Press.

Bräutigam, Deborah. 2011a. Aid 'With Chinese Characteristics': Chinese Aid and Development Finance Meet the OECD-DAC Regime. *Journal of International Development* 23 (5): 752-764.

Bräutigam, Deborah. 2011b. Chinese Development Aid in Africa: What, Where, Why and How Much? In: *China Update 2011*, edited by Jane Golley and Ligang Song. Canberra, Australia: National University.

Bräutigam, Deborah. 2011c. Testimony on China's Growing Role in Africa before the United States Senate Committee on Foreign Relations Subcommittee on African Affairs. November 1, 2011. Accessed at http://www.foreign.senate.gov/imo/media/doc/Deborah_Brautigam_Testimony.pdf.

Bueno de Mesquita, Bruce and Alastair Smith. 2007. Foreign Aid and Policy Concessions. *Journal of Conflict Resolution* 51 (2): 251-284.

Buzan, Barry. 2010. China in International Society: Is 'Peaceful Rise' Possible? *Chinese Journal of International Politics* 3 (1): 5-36.

Chen, Chuan and Ryan J. Orr. 2009. Chinese Contractors in Africa: Home Government Support, Coordination Mechanisms, and Market Entry Strategies. *Journal of Construction Engineering and Management* 135 (11): 1201-1210.

Cheng, Zhiming and Smyth, Russell. 2014. Why Give it Away When You Need it Yourself? Understanding Public Support for Foreign Aid in China. MPRA Paper No. 59052.

Cheung, Yin-Wong, Jakob de Haan, Xingwang Qian, and Shu Yu. 2012. China's Outward Direct Investment in Africa. *Review of International Economics* 20 (2): 201-220.

China Exim Bank. 2008. Chinese Government Concessional Loan and Preferential Export Buyer's Credit. Accessed Online at http://english.eximbank.gov.cn/business/government. Accessed on 7 September 2014.

Collier, Paul. 2007. *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done about It*. Oxford: Oxford University Press

Corkin, Lucy. 2011. Redefining Foreign Policy Impulses toward Africa: The Roles of the MFA, the MOFCOM and China Exim Bank. *Journal of Current Chinese Affairs* 40 (4): 61-90.

Doucouliagos, Hristos and Martin Paldam. 2009. The Aid Effectiveness Literature: The Sad Results of 40 Years of Research. *Journal of Economic Surveys* 23 (3): 433-461.

Downs, Erica. 2011. Inside China, Inc: China Development Bank's Cross-Border Energy Deals. John L. Thornton China Center, Monograph Series No. 3, Brookings Institution, 2011. Accessed at http://www.brookings.edu/~/media/Files/rc/papers/2011/0321_china_energy_downs/0321 china_energy_downs.pdf

Dreher, Axel, Peter Nunnenkamp and Rainer Thiele. 2008. Does US Aid Buy UN General Assembly Votes? A Disaggregated Analysis. *Public Choice* 136 (1): 139-164.

Dreher, Axel, Peter Nunnenkamp and Rainer Thiele. 2011. Are 'New' Donors Different? Comparing the Allocation of Bilateral Aid between Non-DAC and DAC Donor Countries. *World Development* 39 (11): 1950-1968.

Dreher, Axel, Andreas Fuchs, Roland Hodler, Bradley C. Parks, Paul Raschky, and Michael J. Tierney. 2015. Aid on Demand: African Leaders and the Geography of China's Foreign Assistance. CEPR Discussion Paper #10704. London, UK: Centre for Economic Policy Research.

Dreher, Axel and Andreas Fuchs. 2015. Rogue Aid? An Empirical Analysis of China's Aid Allocation. *Canadian Journal of Economics.*

Dreher, Axel and Sarah Langlotz. 2015. Aid and Growth. New Evidence Using an Excludable Instrument. CEPR Discussion Paper No. DP10811.

Drezner, Daniel. 2009. Bad Debts: Assessing China's Financial Influence in Great Power Politics. *International Security* 34 (2): 7-45.

EM-DAT. 2014. *EM-DAT: The OFDA/CRED International Disaster Database.* Brussels, Belgium: Université catholique de Louvain. Available at http://www.emdat.be (accessed September 2014).

Faria, André and Paolo Mauro. 2009. Institutions and the External Capital Structure of Countries. *Journal of International Money and Finance* 28 (3): 367-391.

Foster, Vivien, William Butterfield, Chuan Chen and Nataliya Pushak. 2008. *Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa*. Washington DC: World Bank/PPIAF.

Flores-Macías, Gustavo A. and Sarah Kreps. 2013. The Foreign Policy Consequences of Trade: China's Commercial Relations with Africa and Latin America, 1992—2006. *Journal of Politics* 75 (2): 357-371

French, Howard. 2014. Into Africa: China's Wild Rush. *New York Times*. May 17, 2014. http://www.nytimes.com/2014/05/17/opinion/into-africa-chinas-wild-rush.html?_r=0

Fuchs, Andreas and Nils-Hendrik Klann. 2013. Paying a Visit: The Dalai Lama Effect on International Trade. *Journal of International Economics* 91 (1): 164-177.

Fuchs, Andreas and Krishna Chaitanya Vadlamannati. 2013. The Needy Donor: An Empirical Analysis of India's Aid Motives. *World Development* 44: 110-128.

Gallagher, Kevin P., Amos Irwin and Katherine Koleski. 2012. *The New Banks in Town: Chinese Finance in Latin America*. Washington, DC: Inter-American Dialogue.

Halper, Stefan. 2010. Beijing's Coalition of the Willing. *Foreign Policy*. June 15, 2010.

Hernandez, Diego. 2015. Is Non-DAC Aid Challenging World Bank Conditionality? University of Heidelberg Department of Economics Discussion Paper Series.

Hirono, Miwa and Shogo Suzuki. 2014. Why Do We Need 'Myth-Busting' in the Study of Sino-African Relations? *Journal of Contemporary China* 23 (87): 443-461.

Huang, Meibo. 2015. How Government Loans Promote FDI: Japanese Yen Loans and Chinese Government Preferential Loans. Presentation at the Chinese Overseas Finance Conference at Johns Hopkins University's School of Advanced International Studies (SAIS) in Washington, DC. April, 10, 2015.

Jansson, Johanna. 2013. The Sicomines agreement revisited: prudent Chinese banks and risk-taking Chinese companies. *Review of African Political Economy* 40 (135): 152-162.

Jensen, Nathan M. 2003. Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment. *International Organization* 57 (3): 587-616.

Kastner, Scott A. Forthcoming. Buying Influence? Assessing the Political Effects of China's International Trade. *Journal of Conflict Resolution*.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2004. *World Bank Economic Review* 18 (2): 253-287.

Kavaklı, Kerim Can. 2013. Culture, Commerce and Turkish Foreign Aid. In: *Three Essays on the Links between Domestic and International Politics*. Ph.D. Dissertation, Department of Political Science, University of Rochester, U.S.A.

Kersting, Erasmus and Christopher Kilby. 2014. Aid and Democracy Redux. *European Economic Review* 67: 125-143.

Kilby, Christopher. 2009. The Political Economy of Conditionality: an Empirical Analysis of World Bank Loan Disbursements. *Journal of Development Economics* 89 (1): 51-61.

Kilby, Christopher. 2011. Informal influence in the Asian Development Bank. *Review of International Organizations* 6 (3-4): 223-257.

Kosack, Stephen. 2003. Effective Aid: How Democracy Allows Development Aid to Improve the Quality of Life. *World Development* 31 (1): 1-22.

Kurlantzick, Joshua. 2006. Beijing's Safari: China's Move into Africa and Its Implications for Aid, Development, and Governance. Carnegie Endowment Policy Outlook # 29. November 2006. Washington D.C.: Carnegie Endowment for International Peace.

Kuziemko, Ilyana and Eric Werker. 2006. How Much Is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations. *Journal of Political Economy* 114 (5): 905-930.

Li, Jing, Aloysius Newenham-Kahindi, Daniel M. Shapiro, and Victor Z. Chen. 2013. The Two-Tier Bargaining Model Revisited: Theory and Evidence from China's Natural Resource Investments in Africa. *Global Strategy Journal* 3 (4): 300-321.

Lum, Thomas, Hannah Fischer, Julissa Gomez-Granger and Anne Leland. 2009. China's Foreign Aid Activities in Africa, Latin America, and Southeast Asia. Congressional Research Service Report for Congress. February 25, 2009. Washington, DC: Congressional Research Service.

Marshall, Monty G., Ted Robert Gurr and Keith Jaggers. 2013. Polity IV Project: Political Regime Characteristics and Transitions, 1800-2012. Center for Systemic Peace.

Mayer, Thierry and Soledad Zignago. 2011. Notes on CEPII's Distances Measures: the GeoDist Database. CEPII Working Paper 2011-25. Paris, France: Centre d'Etudes Prospectives et d'Informations Internationales.

Marysee, Stefaan and Sara Geenen. 2009. Win-Win or Unequal Exchange? The Case of the Sino-Congolese Cooperation Agreements. *Review of African Political Economy* 47 (3): 371– 396.

McKinley, Robert D. and Richard Little 1979. The US Aid Relationship: A Test of the Recipient Need and the Donor Interest Models. *Political Studies* 27 (2): 236-250.

Montinola, Gabriella R. 2010. When Does Aid Conditionality Work? *Studies in Comparative International Development* 45 (3): 358-382.

Mohan, Giles and Marcus Power. 2008. New African Choices? The Politics of Chinese Engagement. Review of African Political Economy 35 (115): 23-42.

Morgenthau, Hans. 1962. A Political Theory of Foreign Aid. *American Political Science Review* 56 (2): 301-309.

Mthembu-Salter, Gregory. 2012. Goodwill and Hard Bargains: The DRC, China and India. South African Institute of International Affairs Occasional Paper 114. Johannesburg, South Africa: South African Institute of International Affairs.

Muchapondwa, Edwin, Daniel Nielson, Bradley C. Parks. Austin M. Strange, and Michael J. Tierney. Forthcoming. Ground-Truthing Chinese Development Finance in Africa: Field Evidence from South Africa and Uganda. *Journal of Development Studies*.

Mwase, Nkunde. 2011. Determinants of Development Financing Flows from Brazil, Russia, India, and China to Low-Income Countries. IMF Working Paper 11/255. Washington D.C.: International Monetary Fund.

Naím, Moisés. 2007. Rogue Aid. *Foreign Policy* 159: 95-96.

Neumayer, Eric. 2003a. What Factors Determine the Allocation of Aid by Arab Countries and Multilateral Agencies? *Journal of Development Studies* 39 (4): 134-147.

Neumayer, Eric. 2003b. *The Pattern of Aid Giving: The Impact of Good Governance on Development Assistance*. Routledge Studies in Development Economics. London, UK: Routledge.

Neumayer, Eric. 2004. Arab-related Bilateral and Multilateral Sources of Development Finance: Issues, Trends, and the Way Forward. *World Economy* 27 (2): 281-300.

OECD. DAC Glossary of Key Terms and Concepts. Available at http://www.oecd.org/development/stats/dacglossaryofkeytermsandconcepts.htm.

Pehnelt, Gernot. 2007. The Political Economy of China's Aid Policy in Africa. Jena Economic Research Papers # 051. Jena, Germany: University of Jena.

Provost, Claire. 2011. China Publishes First Report on Foreign Aid Policy. *The Guardian* 28 April 2011. Accessed at http://www.guardian.co.uk/globaldevelopment/2011/apr/28/china-foreign-aid-policy-report

Reilly, James. 2012. China's Unilateral Sanctions. *Washington Quarterly* 35 (4): 121-133

Reinhart, Carmen and Kenneth Rogoff. 2004. Serial Default and the "Paradox" of Rich to Poor Capital Flows. *American Economic Review Papers and Proceedings* 94: 52-58.

Rich, Timothy S. 2009. Status for Sale: Taiwan and the Competition for Diplomatic Recognition. *Issues & Studies* 45 (4): 159-188.

Schraeder, Peter J., Steven W. Hook, and Bruce Taylor. 1998. Clarifying the Foreign Aid Puzzle. *World Politics* 50 (2): 294-323.

Schweller, Randall and Xiaoyu Pu. 2011. After Unipolarity: China's Visions of International Order in an Era of U.S. Decline. *International Security* 36 (1): 41-72.

State Council. 2011. White Paper on China's Foreign Aid. Beijing, China: Information Office of the State Council. http://www.gov.cn/english/official/2011-04/21/content_1849913.htm (accessed: August 2011).

Strange, Austin, Bradley Parks, Charles Perla, and Harsh Desai. 2015. AidData's Methodology for Tracking Underreported Financial Flows, Version 1.2. Willamsburg, VA: AidData.

Strange, Austin, Axel Dreher, Andreas Fuchs, Bradley Parks, and Michael Tierney. Forthcoming. Tracking Under-Reported Financial Flows: China's Development Finance and the Aid-Conflict Nexus Revisited. *Journal of Conflict Resolution.*

Strezhnev, Anton and Erik Voeten. 2012. United Nations General Assembly Voting Data.

Strüver, Georg. Forthcoming. What Friends are Made of: Bilateral Linkages and Domestic Drivers of Foreign Policy Alignment with China. *Foreign Policy Analysis*.

Sun, Yun. 2014. *Africa in China's Foreign Policy.* Washington, DC: Brookings Institution.

Svensson, Jakob. 1999. Aid, Growth and Democracy. *Economics and Politics* 11 (3): 275-297.

Taylor, Ian. 2009. *China's New Role in Africa*. Boulder, Colorado: Lynne Rienner Publishing.

Thacker, Strom C. 1999. The High Politics of IMF Lending. *World Politics* 52 (01): 38-75.

Traub, James. 2006. China's African Adventure. *New York Times*. 19 November 2006.

Tull, Denis M. 2006. China's Engagement in Africa: Scope, Significance and Consequences. *Journal of Modern African Studies* 44 (3):459-479.

Van der Veen, Maurits. 2011. *Ideas, Interests and Foreign Aid.* Cambridge, UK: Cambridge University Press.

Vines, Alex, Lillian Wong, Markus Weimer and Indira Campos. 2009. Thirst for African Oil: Asian National Oil Companies in Nigeria and Angola, Chatham House, London, August

Vreeland, James Raymond and Axel Dreher. 2014. *The Political Economy of the United Nations Security Council. Money and Influence*. Cambridge, UK: Cambridge University Press.

Woods, Ngaire, Alexander Betts, Jochen Prantl, and Devi Sridhar, Transforming Global Governance for the 21st Century. UNDP-HDRO Occasional Papers No. 2013/09.

World Bank. 2013. World Development Indicators 2013. Washington, DC: The World Bank.

Yu, Qiao. 2013. *Relocating China's Foreign Reserves*. Washington, DC: The Brookings Institutions.