



# China's Development Finance to Asia: Characteristics and Implications

OH Yoon Ah



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**KIEP** Korea Institute for International  
Economic Policy

Price USD 3

WORKING PAPER 16-12

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KIEP Working Paper 16-12  
Published December 30, 2016 in Korea by KIEP  
ISBN 978-89-322-4263-7  
978-89-322-4026-8(set)  
Price USD 3

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## EXECUTIVE SUMMARY

This paper examines the determinants of China's development finance to developing countries with a focus on Asia from 2000 to 2012. It uses a recent version of China AidData, one of the most reliable and publicly available data sources that systematically collect and differentiate different types of China's official development financial flows. This paper differs from previous studies in two aspects that (1) it analyzes a wider range of developing countries, moving beyond earlier research largely limited to Africa; and (2) it examines regional variation in China's motives for development financing. The findings show that China's allocations decision for concessional development flows, or ODA, has mixed motives of humanitarian, commercial and strategic interests. It is noteworthy that China's ODA appears not to be in competition against, but rather in a complementary form to, established donors in this period. Yet substantial regional variation is observed, suggesting different regional dynamics are at work. On the other hand, it is found that China's allocations decision for less-concessional development financing largely follows commercial considerations. This paper also provides detailed discussion of the trends in China's development finance to Southeast Asia, which is an Asian region critical for China's economic and foreign policy interests. The paper ends with a discussion of the implications of possible shift in China's overseas development finance strategy since 2011.

**Keywords:** China, Asia, Development Finance, Aid

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# China's Development Finance to Asia: Characteristics and Implications

OH Yoon Ah

## 1. Introduction

China's rapid economic growth in the past decades has led to a significant expansion of China's overseas development finance.<sup>1</sup> The increase in China's development financing has created significant interest as well as alarm among policy makers and academics in the field of international development. Common perceptions in media reports and policy debate are that China allocates development finance for commercial purposes, that it uses aid to secure access to natural resources and support Chinese companies for overseas investment opportunities, and also for strategic purposes to promote its geostrategic interests (*The Economist* 2008; Naim 2007). Critics have said Chinese aid has serious, damaging consequences for recipient countries. China's aid programs have been criticized for lack of respect for social and environment standards and not con-

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<sup>1</sup> In this study, development finance is largely limited to narrower and more traditional categories of official development assistance (ODA) and official other flows (OOF). Recent debates on development finance emphasize novel and innovative approaches, including blended finance, equity investment, and guarantees. A wider concept of total official support for sustainable development (TOSSD) is being discussed by the Organization for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) to expand the scope of international development finance (OECD DAC 2016).

sidering human rights or democracy conditions in recipient countries, thus hindering the political reforms in recipient countries (Crouigneau and Hiault 2006). Others say that the rise of emerging donors, mostly notably China, may put the international standards, embodied by the Paris Declaration on Aid Effectiveness, at risk (Manning 2006) and challenge the US-led order in international development finance (Snell 2015).

Although some recent research shows that some aspects of these allegations may be true (Bader 2015), many of these claims have been made without using accurate empirical data on China's development finance. These popular media and policy accounts tend to conflate concessional and non-concessional development flows from China (Brautigam 2009, 2011). In fact, among what is known as China's development financial flows, what would be qualified as official development assistance (ODA) by the Organization for Economic Cooperation and Development (OECD) definition may be relatively small (Brautigam 2011). Most of its development finance includes commercial loans, natural-resource-backed loans, export credits that do not meet ODA criteria and thus cannot be considered as development assistance.<sup>2</sup> The fundamental cause for this misunderstanding is the lack of data. The Chinese government does not collect and disclose official aid statistics in accordance with the international standards.

In the absence of official statistics, various efforts have been made to estimate China's development assistance comparable with international standards. This study uses one of the most recent, and better results of such efforts. It uses the AidData database to investigate the bilateral-level motivations for China's development assistance. It analyzes a wider range of developing countries, moving beyond earlier research largely limited to Africa, and offers more focused analysis of Asia, where China's rise poses complex geostrategic challenges.

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<sup>2</sup> China's Ministry of Commerce, China Eximbank, and China Development Bank are the main providers for China's overseas development financing. See Varrall (2016) for the intra-government differences on China's external development finance.

Asia is a home region to China where China is the largest country in terms of land area, population, and economic output. More than ten countries share a common border with China and several in the region have territorial disputes over lands and waters involving China. It is the major trade partner and investor for many countries in the region, making some of them considerably China-dependent. As it seeks to reduce the US influence in the region, China's behavior has become increasingly assertive in the recent years. Nonetheless, the nascent empirical literature on Chinese aid has not examined China's aid behavior in Asia and this study seeks to fill this gap.

This study proceeds as follows. Section 2 reviews the main issues and recent studies on China's development finance. Section 3 provides the descriptive statistics of China's development assistance in general and to Asia. Section 4 introduces the data and measures to examine the determinants of China's bilateral development finance. Section 5 reports the empirical results. Section 6 discusses Southeast Asia in detail to provide more substantial implications and discuss recent developments. Section 7 concludes.

## **2. Academic Literature on China's Development Finance**

Recent scholarly investigations have made clear that what is commonly referred to as China's official development assistance is a mixture of what could be categorized as ODA, OOF, and other types of development finance by the OECD DAC standards (Brautigam 2009, 2011; Dreher *et al.* 2015). The DAC has developed standards for what can be considered as ODA and established a reporting regime, known as the OECD Creditor Reporting System (CRS). Detailed project-level information, the essential part of useful aggregate ODA data, is collected and made public according to this process. To qualify as ODA, a project should have the concessionality and development intent. For loans, they should have a grant element, calculated by a set formula, of at least 25 per-

cent. To differentiate quasi-ODA from more concessional flows, the DAC also has its members report the “residual category” of Other Official Flows (OOF) that are developmental in character but “do not meet ODA criteria.” Examples of OOF include export credits and non-concessional loans. This categorization allows for more fine-grained and nuanced, much more accurate understanding of development finance.

China’s “Foreign Aid White Paper 2014,” one of the few official government sources currently available for China’s aggregate development finance, states that China’s total foreign “aid” budget totals US\$ 14 billion from 2010 to 2012 for 121 countries (Government of China 2014). Yet it offers no information disaggregated by recipient country, year, sector, or flow types. The lack of official information has led not only to substantial confusion and misperceptions but also made systematic analysis impossible in regard to determinants of Chinese aid allocation, its characteristics and finally its development impact. Unfortunately, the data problem is unlikely to be resolved by the Chinese government in the immediate term. The Chinese government will not fully disclose official ODA statistics even if it is willing to follow the international standards outside the OECD DAC framework, as some of the emerging donors such as the UAE and Qatar have done in recent years. China may see benefits in operating outside the scope of DAC. Furthermore, it may fear that the Chinese public resent that their government prioritizes overseas development over its own citizens in need (Cheng and Smyth 2016).

Considering the importance of China’s ODA, there have been several attempts to estimate China’s development flows before. Lum *et al.* (2009) and Kitano and Harada (2015) are two major examples that estimate China’s state flows with a global scope. Lum *et al.* (2009) estimate China’s “aid” to Africa, Latin America, and Southeast Asia from 2002 to 2007 based on media reports. The researchers employ a broad definition of China’s development finance, using “aid and related activities” that include a broad range of economic cooperation activities, including overseas investment by Chinese state-owned enter-

prises. The research suggests that China's total aid to three regions grew from \$51 million in 2002 to \$25 billion in 2007. However, information on annual flows to each country is not provided and the dataset is not publicly available.

Kitano and Harada (2015) estimate China's net aid disbursements from 2001 to 2013 following a stricter definition of ODA. They only include grants, interest-free loans, scholarships, concessional loans, and contributions to international organizations while providing estimates for China's multilateral assistance as well as bilateral aid. Using a wide range of available Chinese government statistics, including financial yearbooks, China Exim Bank reports and information from ministry websites, the authors estimated that China's net aid reached \$7.1 billion in 2013, which makes China the sixth largest donor in the world for 2013.<sup>3</sup>

The AidData project represents one of the most comprehensive and systematic efforts to collect data on China's project-level development finance. It collects project-level information on China's overseas development finance using media-based methodology with a group of consistent, transparent, and pre-set rules. In its most recent version, it has information on Chinese development finance flows to all developing regions from 2000 to 2012. One of its advantages is to differentiate "ODA-like" activities from "OOF-like" activities. More information on this data project is provided in Section 4.

In the aid literatures, largely four groups of factors are known to matter in aid allocation: the development needs of a recipient country; institutional quality such as good governance, democracy, or respect for human rights, which are the merits Western countries want to promote in a recipient country; a donor's commercial interests; and donors' foreign policy interests. In the popular accounts, China has been criticized for primarily being motivated by the latter factors at the expense of recipient countries.

Due to the dearth of data suitable for empirical analysis, research on the al-

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<sup>3</sup> See Strange *et al.* (2015a, pp. 14-15) for detailed discussion of other previous estimates.

locations of China's development finance has been rare. In their analysis of China's development finance to Africa over the 2000–2013 period, Dreher *et al.* (2015) found that Chinese ODA-like flows are allocated to poorer countries, serving developmental and humanitarian needs, and also linked to foreign policy interests. Here foreign policy factors are measured by China's voting alignment with African countries in the UN General Assembly and recipient positions with regard to the One China policy. They fail to find support to the claims that Chinese aid is motivated by natural resource access, affected by the institutional quality or regime type. For less concessional types of China's financing, they found natural resource endowments matter.

Using a different dataset, Dreher and Fuchs (2015) examine bilateral aid allocation from 1956 to 2006 provided by the Chinese Ministry of Commerce. They find that trade and foreign policy interests are important motives but not more so than Western donors. Both China and Western donors use aid for strategic reasons. At the same time, Chinese aid is largely unlinked to natural resource endowments and institutional characteristics of the recipient countries. The authors conclude that the criticism that Chinese aid is “rogue aid” is unjustified and it is more sensible to judge China's development practice by the convention of large donors and not their “best practices.”

### **3. Chinese Development Finance to Asia**

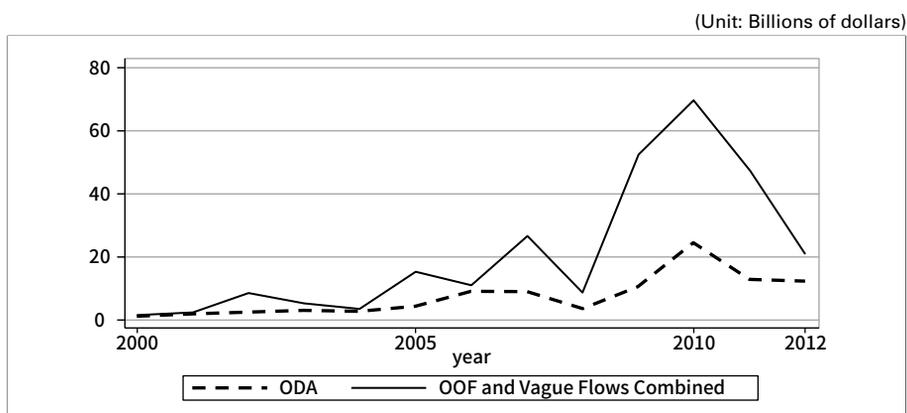
According to AidData, China provided 97 billion dollars to the world in aid from 2000 to 2012. The ODA-like flows have increased dramatically in the later years, with 50 percent of the total aid China committed from 2000 to 2012 being pledged from 2010 to 2012 (Figure 1).<sup>4</sup> This suggests that Chinese aid from 2013, not covered by this study, would have been significantly large. OOF-like

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<sup>4</sup> The terms, “ODA,” “ODA-like flows,” and “aid” are used interchangeably for the rest of the study.

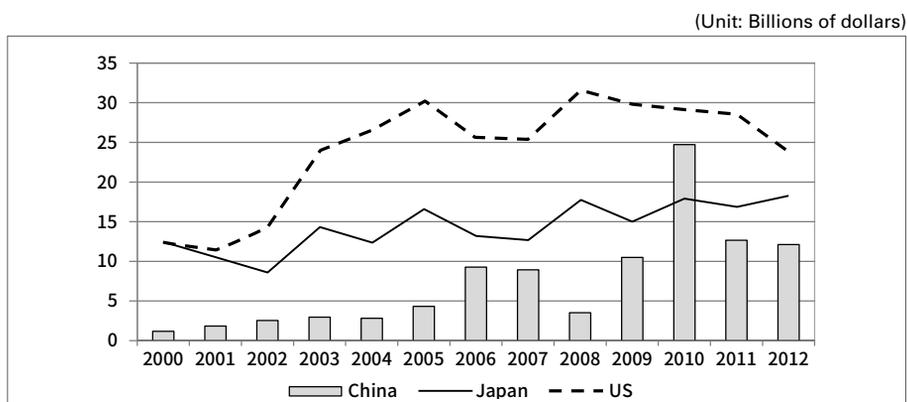
flows are substantially larger, with the total amount for the same period amounting to 272 billion dollars, and have increased more rapidly throughout the 2000s. As discussed in the literature, some of these flows may have been mistaken as aid and caused the impression that Chinese aid is larger than it actually is.

**Figure 1. China's ODA-like Flows and OOF-like Flows to the World, 2000–2012**



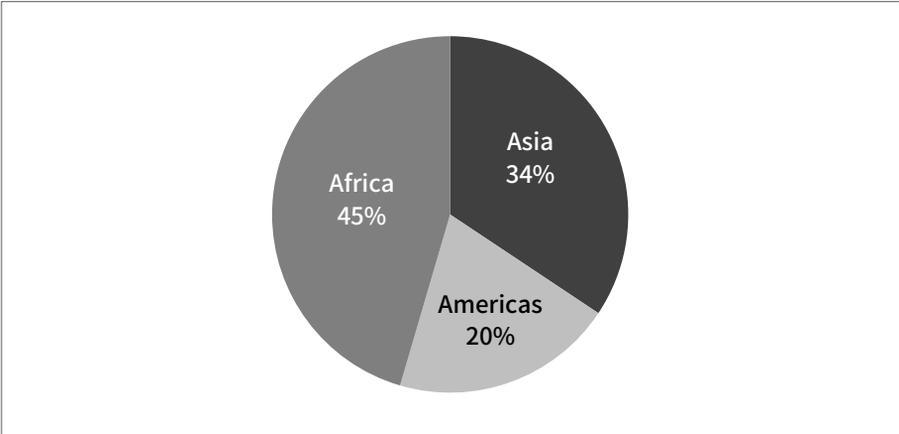
Source: AidData (Accessed June 10, 2016).

**Figure 2. China's Aid, Compared to US and Japan**



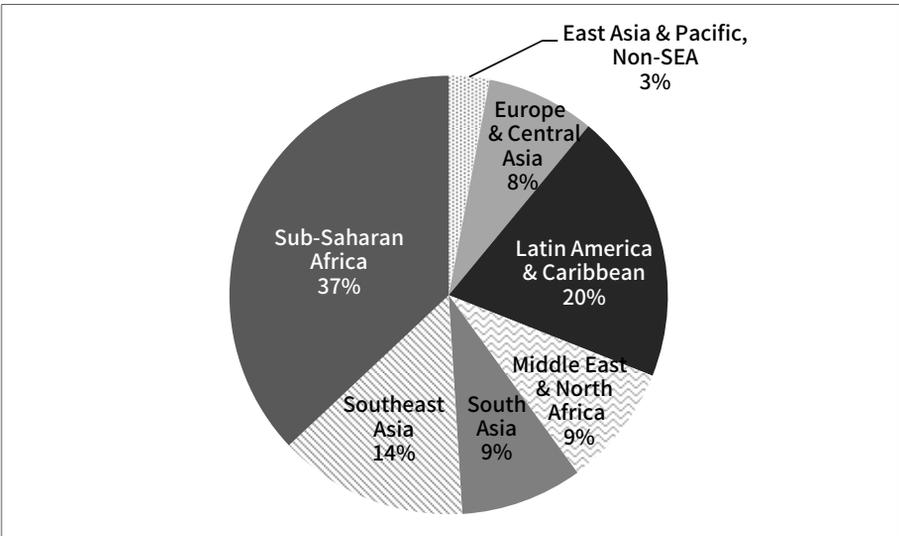
Source: AidData (Accessed June 10, 2016); OECD. Stat (Accessed November 11, 2016).

**Figure 3. Regional Distribution of China's ODA-like Flows I, 2000–2012**



Source: AidData (Accessed June 10, 2016).

**Figure 4. Regional Distribution of China's ODA-like Flows II, 2000–2012**



Source: AidData (Accessed June 10, 2016).

A more useful way to assess the actual scale of China's global aid is to compare it to that of the US and Japan. For the same period, the US and Japan pro-

vided 312 billion dollars and 186 billion dollars for bilateral ODA commitments according to OECD DAC statistics (2016). In 2010, China briefly surpassed Japan by 7 billion dollars. In 2012, the last year of the sample, China pledged 12 billion dollars, less than Japan's 18.2 billion dollars. Figure 2 shows the trends for these three donors

Figure 3 shows a geographic distribution of China's development recipients by the three major regions of Asia, Africa, and the Americas. Africa (45%) takes the largest share, followed by Asia (34%) and the Americas (20%).<sup>5</sup> A more detailed regional breakdown indicates that Sub-Saharan Africa received the largest share of China's aid (37%), for this period, followed by Latin America and the Caribbean (20%), and Southeast Asia (14%) (Figure 4).

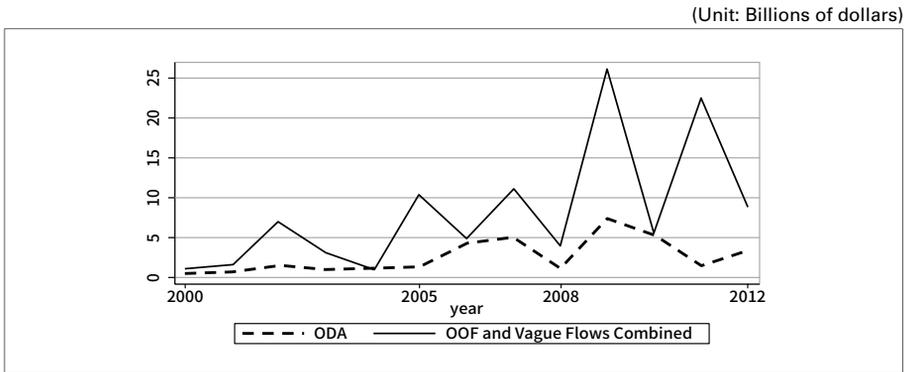
China's foreign aid to Asia for 2000–2012 amounts to 33 billion dollars and OOF-like flows to 97 billion dollars (Figure 5). ODA-like flows surged in 2009 when China pledged about 5 billion dollars in an energy and infrastructure development package to Kazakhstan. Except for 2009 and 2010, Japan maintained its status as the top donor to Asia (Figure 6). US aid to Asia steadily increased in the 2000s, but has been in decline since 2010. For the period under study, US committed 86 billion dollars and Japan 104 billion dollars as bilateral development assistance.

Within Asia, Southeast Asia is the largest recipient of Chinese aid from 2000 to 2012 (42%), followed by South Asia (26%), and Europe and Central Asia (23%). The annual trends in Figure 8 show that for most Asian regions except Southeast Asia, the flows are concentrated in more recent years, often represented by a surge surrounding a period of two or three years. Country-level information is provided in Table A1.

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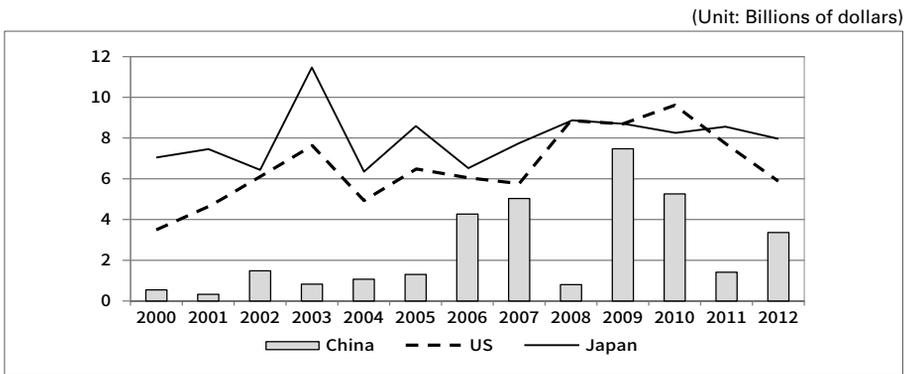
<sup>5</sup> Asia includes East Asia and the Pacific region, South Asia, Southeast Asia, and Europe & Central Asia. Africa covers the Middle East and North Africa (MENA) and Sub-Saharan Africa. The Americas include Latin America and the Caribbean. Regional categorization follows the World Bank country grouping (<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>).

**Figure 5. China's ODA-like Flows and OOF-like Flows to Asia, 2000–2012**



Source: AidData (Accessed June 10, 2016).

**Figure 6. China's Aid to Asia, Compared to US and Japan**

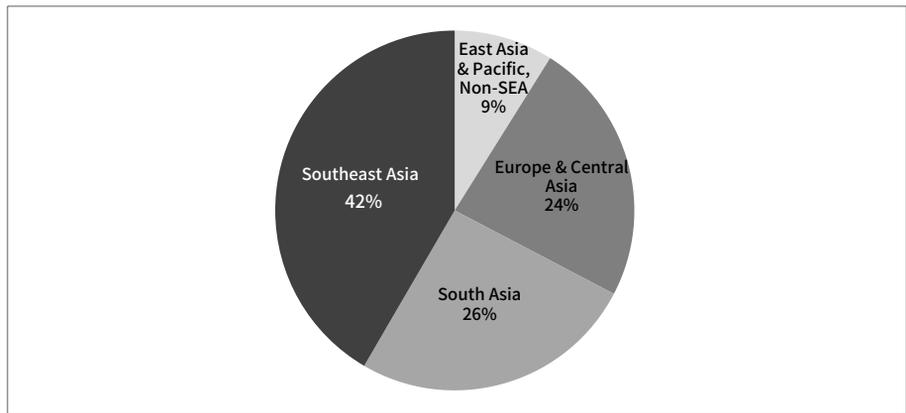


Source: AidData (Accessed June 10, 2016); OECD. Stat (Accessed November 11, 2016).

The sectoral distribution of Chinese aid to Asia clearly shows the importance of natural resource and energy access in China's aid policy. A total of 14 billion dollars, which represents 41 percent of the total flows, goes into energy generation and supply. The second largest category is the government and civil society, which is commonly represented by construction projects of government buildings or large sports stadiums. The third and fourth largest sectors are industry and transport, which are all linked to economic development. The

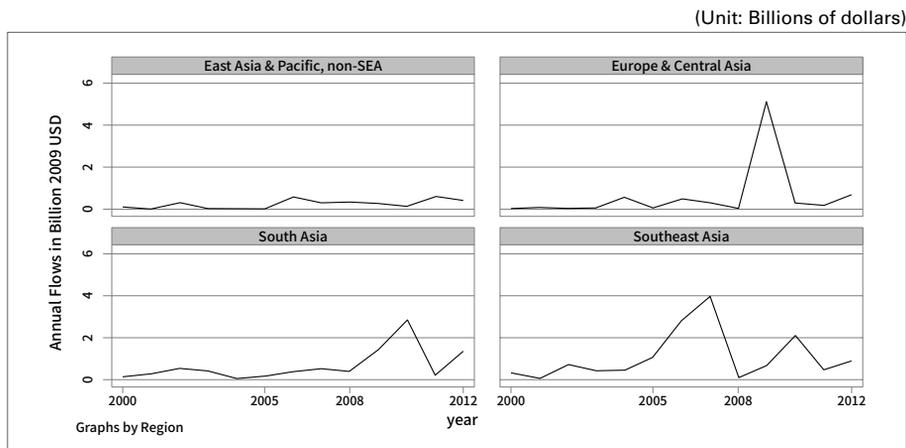
overall patterns confirm the widespread perceptions that China's development assistance is focused on infrastructure development, including power plants, roads and railway construction, in addition to high-visibility civil works for the host government.

**Figure 7. Regional Distribution of China's ODA-like Flows to Asia, 2000–2012**



Source: AidData (Accessed June 10, 2016).

**Figure 8. Annual China's ODA-like Flows to Asia by Region**



Source: AidData (Accessed June 10, 2016).

**Table 1. Sectoral Distribution of China's Aid to Asia, 2000–2012**

Sector	Value (Millions of dollars)	Share (%)
Energy Generation and Supply	13644.7	41.0
Government and Civil Society	4012.8	12.1
Industry, Mining, Construction	3664.5	11.0
Transport and Storage	3275.6	9.9
Other Multisector	2932.6	8.8
Unallocated / Unspecified	1701.6	5.1
Emergency Response	1215.7	3.7
Agriculture, Forestry and Fishing	738.6	2.2
General Budget Support	666.1	2.0
Action Relating to Debt	619.4	1.9
Communications	327.3	1.0
Health	129.1	0.4
Water Supply and Sanitation	118.5	0.4
Education	73.9	0.2
Other Social infrastructure and services	62.0	0.2
Trade and Tourism	48.7	0.1
Developmental Food Aid/Food Security Assistance	8.5	0.0
Unset	2.6	0.0
Business and Other Services	2.4	0.0
Support to Non-Governmental Organizations (NGOs) and Government Organizations	0.4	0.0
General Environmental Protection	0.1	0.0
Total	33245.1	100.0

Source: Author's calculation using AidData.

## 4. Data and Model

### 4.1. AidData

This paper uses data on China from the AidData database. This is probably the best alternative currently available for empirical investigation of China's development finance at the recipient country and project level (Muchapondwa *et al.* 2016). AidData's methodology is primarily drawn from media-based data collection.<sup>6</sup> Despite having many limitations, at least their methodology is transparent and thus the limitations of data are known to researchers, which is critical to unbiased empirical research.

For the analysis in the paper, I use two measures of China's development finance developed by AidData. The first measure is China's ODA flows, which is coded "ODA-like" types of flows in the AidData database. It includes all grants, technical assistance and scholarships, loans with large grant elements, debt relief, and military aid with development intent. The second is China's OOF flows, which includes both "OOF-like" flows and "Vague" flows in the AidData database. "OOF-like" flows include loans and export credits that have little or no grant element or that are primarily intended to improve economic development or welfare in the recipient country, as well as grants that are not intended for development purposes. Vague projects can be categorized as both ODA-like and OOF-like projects due to insufficient information. Dreher *et al.* (2015) already show that AidData's ODA and OOF measures are different from each other and are largely consistent with the characteristics of more and less con-

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<sup>6</sup> In the first stage, China's development projects were searched using Factiva, a media database, according to pre-laid procedure. In the second stage, additional information is searched on each project to corroborate information and obtain additional details from government documents, press releases, policy reports, and academic papers. Individual projects are classified into up to twelve different flow-type categories. These categories can be aggregated to ODA-like and OOF-like flows based on the concessionality principle. In addition, AidData conducts follow-up audits to screen for project cancellations, scale-backs, or duplications. See Strange *et al.* (2015b).

cessional development flows. My own preliminary analysis also confirms ODA-like flows and OOF-like flows in the dataset behave quite differently from each other.

## **4.2. Explanatory Variables**

My model specification is largely similar to Dreher *et al.* (2015). Explanatory variables are grouped into four categories: developmental/humanitarian, institutional, commercial and foreign policy motives. The first two groups largely represent recipient needs whereas the last two capture donor interests.

The first group includes the developmental and humanitarian motives of aid giving. For this group, I include GDP per capita, which is self-evident, and natural disaster, measured by the total number of people affected by natural disasters in the recipient country, as provided by the international disasters database EM-DAT.

For the second group of institutional merits of a recipient, I use first democracy as represented by the polity2 variable from the Polity IV Project. China is often accused of supporting other authoritarian regimes for its own survival or regional stability (Bader 2015). Another variable in this group is 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. China has been accused of engaging corrupt governments, thus undermining international efforts to improve governance in the recipient country (Zafar 2007).

Third, to explain how commercial motivations might shape the bilateral allocation of Chinese official finance, I employ two measures. As a proxy for China's trade interests, I include the value of China's exports to the recipient country. It is common in the aid literature that export competition is linked to aid allocations (Barthel *et al.* 2014). Similarly, to account for China's potential interest in securing access to natural resources, I include a measure of energy

depletion in a given country provided by the World Bank. This is an standardized indicator of a country's resource endowment, measuring the value of energy resource stock including coal, crude oil, and natural gas in a country over the remaining reserve lifetime.

There are three strategic interest variables. I first employ the voting behavior of recipient countries in the United Nations General Assembly (UNGA), which measures the degree of similarity between each country and China on a scale from 0 to 1, developed by Bailey, Strezhnev and Voeten (2015). I also use a measure of the strategic value of a recipient country recognized by DAC donors by taking the residuals of an OLS regression of ODA committed by all DAC donors in the sample as in Dreher *et al.* (2015). I also include a country's stance on the One-China policy by using a binary indicator variable that takes a value of one if a recipient country recognizes the government of Taiwan.

I control for population as well as time trend and add a binary indicator that takes a value of one if English is the official language, to account for the bias that may arise from the AidData's data collection process where primary search is limited to English-language media sources. Finally, I include a binary indicator that takes a value of one if the recipient country shares a common border with China. 14 countries, including Russia and others in Central and Southeast Asia share an international border with China. Shared borders account for broadly-defined commercial and geostrategic ties and also are a proxy for the Chinese central government's domestic policy interests in promoting the development of its border provinces. I lag all time-varying explanatory variables by one year to mitigate endogeneity concerns and account for the time needed for these factors to have influence on aid allocation decisions. My data set covers 86 countries from 2000 to 2012 and I exclude countries with GDP per capita over 30,000 dollars and OECD member states.<sup>7</sup> Data sources and summary statistics of all variables are presented in Tables A2 and A3.

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<sup>7</sup> I also exclude Iraq and Afghanistan.

### 4.3. Model

Aid allocations suffer from an identification problem associated with selection bias. This may arise from a number of factors. First, aid allocations are uneven. Not all donors give development finance to every recipient country. Second, due to the nature of AidData, the missing data may be the result of a systematic error in the data collection process. Then there is the problem of log-transformation. Since many countries receive zero flows, data distribution on the dependent variable is highly skewed. Log-transformation creates distribution more standardized, but this drops quite a number of observations, hence information, from the sample. The censored nature of these flows naturally leads to consideration of estimation techniques such as the Heckman selection model and Tobit model in the aid literature. Yet it is also known that these two techniques are not without limitations.

First, a two-stage Heckman sample selection model is a useful technique to address selection bias because it allows the error terms to be corrected for the correlation between the selection and allocation models (Heckman 1979). In the context of aid research, it is empirically often the case that the residuals of the selection equation in the first step are significantly associated with the allocation equation in the second step. The Heckman model depends on the existence of a variable that fulfills the exclusion restriction, i.e., that affects the first stage of aid decision, but not the second stage. However, it is unrealistic that any of the variables affecting the receipt of aid are independent of the allocation decision. As a result, some of the previous studies that examine the determinants of aid allocations estimate the allocation equation without correcting for selection (Fleck and Kilby 2010; Hoeffler and Outram 2011). Second, the high frequency of zeros in the data suggests that the data may be censored, leading to a consideration of a Tobit estimator. However, Tobit models are inappropriate when accounting for fixed effects (Fleck and Kilby 2010). For these reasons, I use a simple panel data model which takes the following basic form:

$$y_{it} = \alpha_i + \delta_t + \beta X_{it} + \varepsilon_{it} \quad (1)$$

Where  $i$  denotes recipient and  $t$  year.  $y_{it}$  represents China's ODA-like flows to country  $i$  in year  $t$ ,  $X_{it}$  a vector of explanatory variables,  $\alpha_i$  country-fixed effect,  $\delta_t$  year-fixed effect, and  $\varepsilon_{it}$  the error term.

## 5. Estimation Results

### 5.1. China's Aid

Table 2 shows the estimation results for China's aid allocation. The dependent variable is the log-transformed China's bilateral aid commitment. Model 1 uses the full sample and Models 2 to 4 are restricted to Asia, Africa, and the Americas, respectively. As expected, the results vary quite substantially across regions.

The results from the full sample show that Chinese global aid is guided by commercial and foreign policy interests (Model 1). Although the impact of export relations is insignificant, China unsurprisingly links its aid policy to resource security. A one unit increase in resource wealth of a recipient country on a scale from 0 to 100 is associated with an increase in Chinese aid by 4.8 percent.

Foreign policy considerations appear to play a major role, but not in a way commonly thought. Two factors stand out. First, UN voting alignment significantly influences China's aid allocation, yet the coefficient is negative. If a country's voting patterns are unlike to those of China, the country on average is likely to receive larger Chinese aid. Substantively, a 0.1 point decrease in voting similarity, on a scale from 0 to 1, leads to 85% increased Chinese aid to the country. This is counterintuitive, but it may suggest that China is strategically using its aid to make new friends to expand its influence rather than rewarding its old allies. Another significant foreign policy variable is a country's strategic values

recognized by DAC donors. Curiously, this negatively affects Chinese aid flows. A one unit increase on a scale from -1.8 to 2.6 in DAC strategic interest reduces Chinese aid by 49 percent. The negative sign suggests that China avoids countries highly favored by DAC donors and focuses its aid support on “less popular” countries. In other words, Chinese aid appears not to be in competition against existing donors. Finally, Taiwan recognition does not influence Chinese aid allocation. Taken together, these findings suggest that China strategically uses foreign aid, seeking to win new friends but avoiding head-on competition with established donors.

**Table 2. China's Aid Allocation, 2000–2012**

	(1) All	(2) Asia	(3) Africa	(4) Americas
GDP per capita	-0.105 (-0.195)	-0.944*** (-3.187)	0.078 (0.382)	-0.791 (-1.250)
Disaster	0.010 (0.494)	0.035 (0.789)	0.038** (2.313)	-0.023 (-0.262)
Democracy	-0.022 (-0.545)	-0.036 (-1.002)	0.006 (0.213)	-0.287 (-0.507)
Control of Corruption	-0.301 (-0.594)	0.716 (1.482)	-0.375 (-1.033)	0.349 (0.159)
Chinese exports	0.302 (1.173)	0.468** (2.459)	0.008 (0.074)	0.588 (0.738)
Natural Resources	0.048* (1.743)	0.022 (0.777)	0.022* (1.750)	0.082* (1.838)
UN Voting	-8.517** (-2.583)	4.320 (0.766)	-5.857* (-1.760)	-29.127** (-2.384)
DAC strategic values	-0.484** (-2.119)	-0.932* (-1.872)	-0.205 (-0.837)	1.133 (1.485)
Taiwan	1.391 (1.515)		1.358*** (2.604)	1.057 (1.550)
Population	-3.866 (-1.132)	-0.492** (-2.105)	0.038 (0.260)	-0.928 (-0.840)

Table 2. Continued

	(1) All	(2) Asia	(3) Africa	(4) Americas
Time trend	0.139* (1.987)	0.120* (1.907)	0.073 (1.406)	0.217 (1.270)
Common Border		-0.590 (-1.436)		
English-Speaking		1.005* (1.789)	0.823** (2.483)	2.126 (1.305)
Constant	-194.245* (-1.729)	-215.982* (-1.672)	-126.322 (-1.201)	-374.049 (-1.067)
Observations	510	145	304	61
Number of countries	86	23	47	16

**Note:** Fixed effects model for Model 1 and random effects models for others following the Hausman diagnostic test results; Robust t-statistics in parentheses in Model 1; Robust z-statistics in parentheses in others; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ ; See footnote 5 for regional groups.

**Source:** Author's calculation.

There is no evidence that development needs and institutional quality of a country has a significant effect. The findings that GDP per capita and natural disaster, used as a measure of development needs, are not associated with Chinese aid suggest that China's aid policy falls short of the international norms that aid should be given to improve the lives of the citizens of the developing world. Next, democracy and good governance is not systematically related to Chinese aid allocation. The non-relationship between domestic institutions and aid allocation is actually consistent with China's aid principle of "non-interference" and "no political conditionality," which is based on "Five Principles of Peaceful Coexistence," a major pillar of China's foreign policy dated from 1954.<sup>8</sup> Nonetheless, it also supports common criticisms that China fails to use its aid to promote political development of the recipient country.

Results from Models 2 through 4 suggest that there may be a high level of

<sup>8</sup> Adopted in the Agreement on Trade and Intercourse between the Tibet Region of China and India, also known as the Panchsheel Treaty, signed in 1954 by China and India.

regional heterogeneity. For the developmental/humanitarian motives, the level of economic development registers important only in Asia (Model 2). A one percent increase in a country's GDP per capita leads to 0.94 percent smaller Chinese aid. This suggests that, unlike its global practice, China's aid allocation in Asia indeed follows the international norm that foreign aid should promote development of low-income countries. Natural disaster, on the other hand, appears to be an important factor in Africa (Model 3). The positive and significant coefficient suggests that China indeed allocates more aid in the aftermath of natural disaster in the region. A ten percent increase in the number of people affected by a disaster in Africa raises Chinese aid by 0.4 percent. A country's institutional characteristics, including both levels of democracy and control of corruption do not appear to play a significant role in any of the regions.

For commercial interests, it is only Asia where Chinese exports to a recipient country are significantly related to larger Chinese aid (Model 2). The export elasticity of Chinese aid suggests that a one percent increase in exports leads to 0.47 percent increased aid to the country. This may reflect the fact that Asia is a major trade partner for China and part of an expansive regional production network. Natural resource wealth appears to be positively associated with Chinese aid in Africa and Americas (Models 3 and 4). This is consistent with popular accounts on China's economic engagement with resource-rich Africa and Latin America and the Caribbean. For foreign policy interests, the impact of UN voting alignment is also negative and significant in both Africa and Americas (Models 3 and 4). DAC strategic value has a significant and negative coefficient in Asia (Model 2). Finally, countries with diplomatic relations with Taiwan are likely to receive more of Chinese aid in Africa (Model 3). It may be that China seeks to win over those few countries to change their position to support China.<sup>9</sup>

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<sup>9</sup> No country in Asia recognizes Taiwan during the period under study.

## 5.2. China's OOF-like Flows

Table 3 shows the estimation results for official other flows from China. The model set-ups are similar to Models 1 through 4 of Table 2. The dependent variable is the log-transformed China's annual bilateral OOF-like flows. For the global sample (Model 1), GDP per capita and population size, closely associated with commercial opportunities, as well as institutional quality and sharing borders, appear to be significant. Higher GDP per capita means greater market potential. A one percent increase in income level raises China's OOF flows by 0.58 percent. On the other hand, countries ranked higher in the corruption of control measure are likely to receive smaller flows. A 0.1 score increase, on a scale ranging from -2.5 to 2.5, is associated with 7 percent smaller flows. The reason for the negative correlation between the control of corruption variable and Chinese non-concessional flows may be driven by the tendency that China expands its overseas economic engagement with countries with poor institutional quality. The poorly-governed, high-risk business environment keeps away Western investors and this may have created opportunities for late-comers like China. The finding that China's OOF flows are associated with poor institutional quality is also consistent with studies of China's outward FDI that China's state-owned enterprises (SOEs) tend to be attracted to countries with higher political risks (Ramasamy, Yeung, and Laforet 2012). China's SOEs may be allowed to make more risky investments to advance national interests while their reliance on government-to-government relationships is likely to reduce the riskiness of development projects. Population, a proxy for market size, also increases China's OOF, with a one percent increase linked to 0.56 percent larger flows. Sharing borders with China is also a significant factor.

As seen in Models 2 through 4, regional variation is quite considerable. I focus my discussion on Asia (Model 2). First, countries with higher income receive more Chinese less concessional financing. Second, China's OOF increased significantly in the following year of a natural disaster in Asia. The positive and

significant relationship between natural disaster and China's OOF-like flows could be attributed to the trend that most of China's OOF is linked to infrastructure development which may be proposed for the partner country's reconstruction in the aftermath of a disaster. A ten percent increase in the number of people affected by natural disasters in Asia is associated with an 8.5 percent larger OOF. The positive coefficient of the population variable suggests that China's OOF allocation responds to the market size of the recipient country. Countries sharing common borders with China also receive larger OOF-like financing. Moving to Africa (Model 3), I find evidence that China's OOF flows to countries with poor control of corruption, greater resource wealth, and larger population. This is largely consistent with widely known accounts of China's commercial activities in Africa. No strategic factors play a major role in the region. Finally, China's OOF to Americas is driven by a number of strategic variables in addition to commercial relations (Model 4). The impact of democracy is negative and significant in attracting China's OOF to Americas. China enjoyed exceptionally good relations with resource-wealthy, but less-democratic Latin American countries in the 2000s, especially with Venezuela during the presidency of Hugo Chavez. It may be that this may drive the results. China's OOF flows move in the opposite direction to its exports. UN voting similarity, Taiwan recognition, and population size increase the value of Chinese OOF.

**Table 3. OOF-like Flows Allocation, 2000-2012**

	(1)	(2)	(3)	(4)
	All	Asia	Africa	Americas
GDP per capita	0.577*** (3.316)	0.872* (1.927)	0.452 (1.378)	1.014 (1.479)
Disaster	0.041 (1.589)	0.079** (2.050)	0.004 (0.099)	0.035 (0.515)
Democracy	0.014 (0.483)	0.054 (1.184)	0.007 (0.180)	-0.147* (-1.655)

**Table 3. Continued**

	(1)	(2)	(3)	(4)
	All	Asia	Africa	Americas
Control of Corruption	-0.653** (-2.062)	0.040 (0.055)	-0.700** (-2.010)	0.132 (0.196)
Chinese exports	0.016 (0.114)	-0.234 (-0.726)	0.008 (0.041)	-0.689* (-1.655)
Natural Resources	0.013 (1.329)	0.033 (1.225)	0.022* (1.765)	-0.024 (-1.178)
UN Voting	2.872 (0.873) (4.417)	4.823 (0.934) (2.502)	1.294 (0.188) (3.354)	24.045 (1.685) (2.868)
Common Borders	1.478*** (3.424)	1.914*** (2.730)		
English Speaking	-0.283 (-0.922)	-0.918** (-2.158)	-0.256 (-0.751)	2.282** (2.511)
Constant	-352.246*** (-4.284)	-291.482** (-2.480)	-333.927*** (-3.214)	-838.059*** (-2.910)
Observations	297	75	166	56
Number of countries	77	19	42	16

**Note:** Random effects models are employed following the Hausman diagnostic test results; robust z-statistics in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; See footnote 5 for regional groups.

**Source:** Author's calculation.

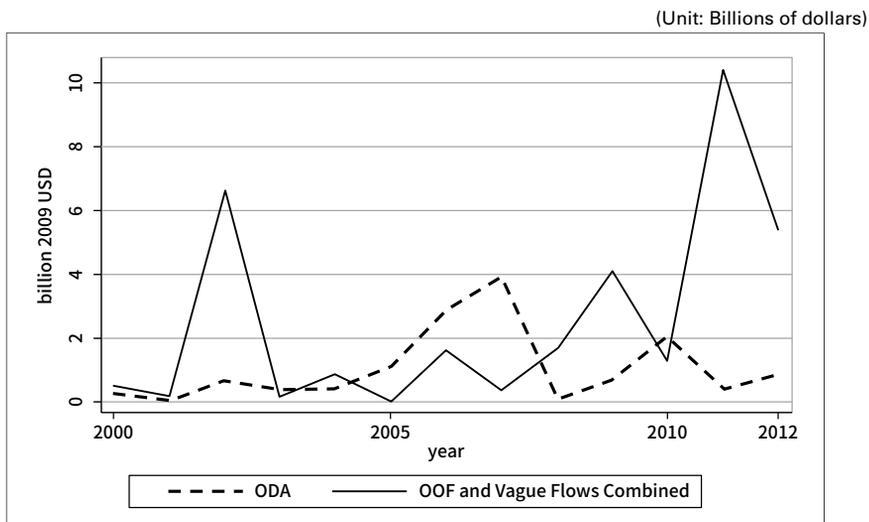
## 6. Further Discussions on Southeast Asia

Within Asia, Southeast Asia is a region whose economic and strategic importance to China has been rapidly growing over the past few years. In economic terms, it is not only an important commodity exporter to China, but is also deeply integrated into China's supply chains. In the security realm, out of ten countries in the region, Vietnam and the Philippines have territorial disputes with China in the South China Sea, which is crucial to China's regional maritime strategy. Southeast Asia is a geopolitically important zone to President Xi Jinping's "neighborhood policy" and the twenty-first century Maritime Silk

Road (MSR) initiative (Renwick 2016). In its 2014 White Paper on China’s foreign aid, the Chinese government specifically mentions Southeast Asia as one of the two key geographical regions where China promotes cooperation under its “Regional Cooperation Mechanism” (Government of China 2014, p. 18). The other geographic region mentioned in the document is Africa. This section examines China’s development finance to the region in more detail and discusses recent developments.

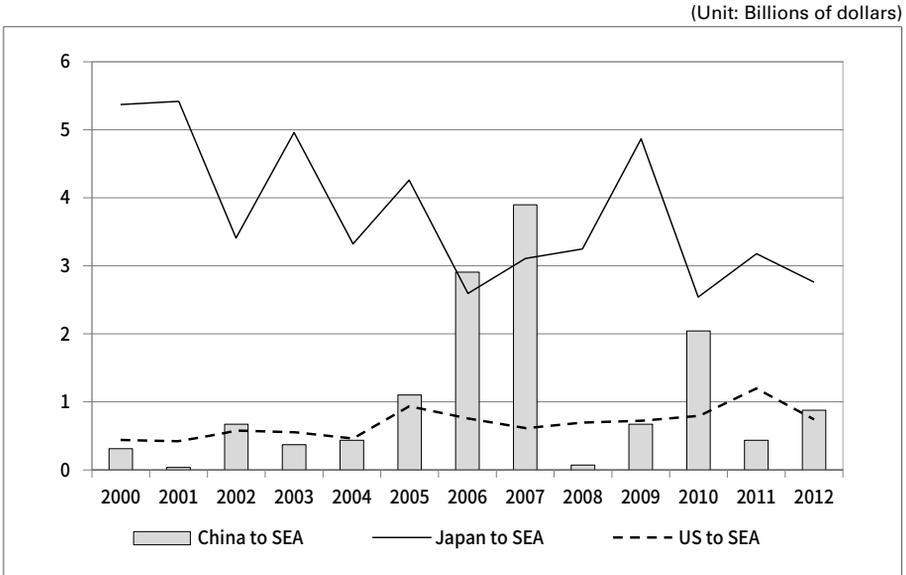
Chinese aid to Southeast Asia for 2000-2012 amounts to 14 billion dollars and OOF to 272 billion dollars (Figure 9). Its aid surged in 2006 and 2007 when China pledged over 2 billion dollars in development packages to the Philippines. The overall trends suggest that Chinese aid to Southeast Asia continues to rise while flows from the US and Japan remain stagnant or even decline over the years (Figure 10). Still, Japan largely maintains its place as the top donor to the region throughout the period with a total of 49 billion dollars. The US provided 9 billion dollars.

**Figure 9. China’s ODA-like and OOF-like Flows to Southeast Asia, 2000–2012**



Source: AidData (Accessed June 10, 2016).

**Figure 10. China's Aid to Southeast Asia, Compared to US and Japan<sup>310</sup>**

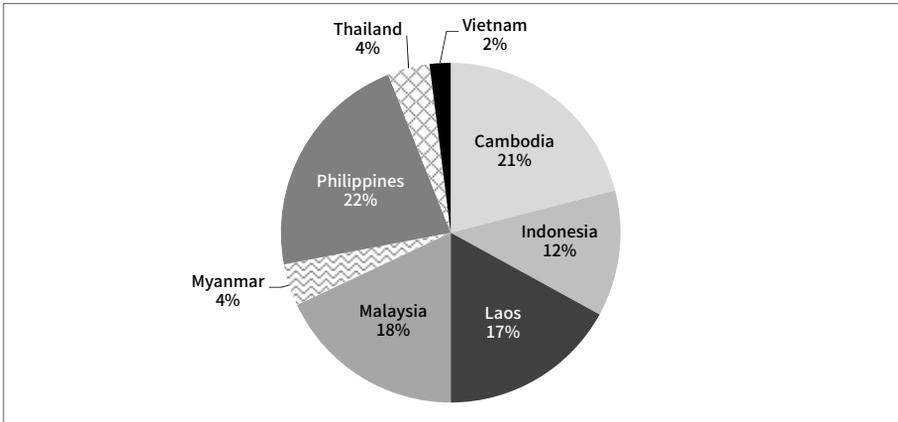


Source: AidData (Accessed June 10, 2016); OECD. Stat (Accessed November 11, 2016).

The country-level break down shows that the Philippines (22%) was the largest recipient of China’s ODA for this period, followed by Cambodia (18%), Malaysia (18%), and Laos (17%) (Figure 11). The Philippines maintained a relatively smooth relationship with China in the 2000s under President Gloria Macapagal Arroyo. In 2006, China’s Eximbank pledged 6-billion dollar loan packages for the following three years, mostly for infrastructure projects including the rehabilitation of the metropolitan areas and highways (Chipongian 2006). Although some of the loans were later cancelled and therefore the amount was adjusted (AidData), this was a time when the bilateral relationship was relatively untroubled. In contrast, the term of President Benigno Aquino III that began in 2010 coincided with the rising tensions in the South China Sea.

<sup>10</sup> The sudden surge in Japan’s ODA in 2009 was largely driven by a US\$ 962 million rise in its aid to Vietnam. The two countries signed an FTA (the Japan-Viet Nam Economic Partnership Agreement) in 2008, which subsequently entered into force in 2009.

**Figure 11. China's Aid to Southeast Asia, 2000–2012**



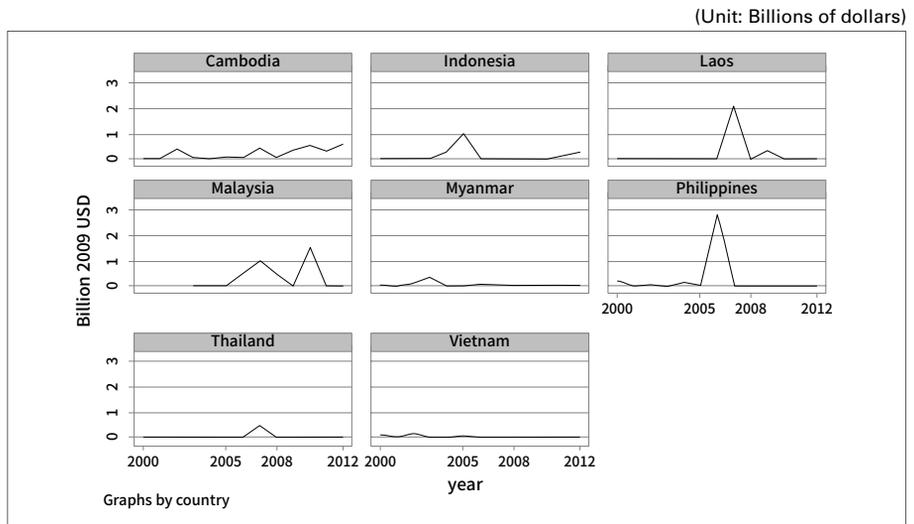
Source: AidData (Accessed June 10, 2016).

Note that Vietnam and Myanmar, two of the least developed countries in the region, received only 6 percent combined. The low level of flows to Vietnam can be explained by the country's long contentious historical relationship with China. On the other hand, Myanmar is a curious case. During the 2000s when the country was placed under comprehensive Western sanctions, it was commonly believed that China provided an economic lifeline to Myanmar, providing cheap consumer goods and much-needed capital. AidData's estimates of Chinese aid to Myanmar are relatively small. One could speculate that the international isolation caused by sanctions may have caused the dearth of information that biased the AidData data collection downwards. Alternatively, the absolute amount of China's financing, at least in a form of concessional flows, may have been much more limited than commonly thought. China's aid to Laos in 2007 was as high as 48 percent of the country's GDP and Cambodia (8.6%) in 2002. For Myanmar, the highest level was 2.8 percent in 2003.

The annual trends of Chinese aid to individual Southeast Asian countries shown in Figure 12 suggest that Cambodia is the country where China's development assistance has increased steadily over the years. This is consistent with the widely-shared observation that Cambodia is the closest ally of China in

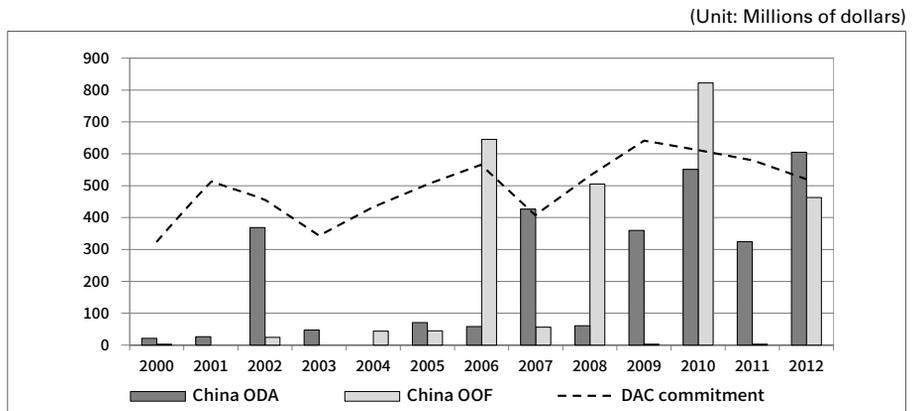
Southeast Asia, whose role has been important in undermining the unified stance of the Association of Southeast Asian Nations (ASEAN) defying China on the South China Sea disputes in recent years.

**Figure 12. China's Aid to Southeast Asia 2000–2012, by country**



Source: AidData (Accessed June 10, 2016).

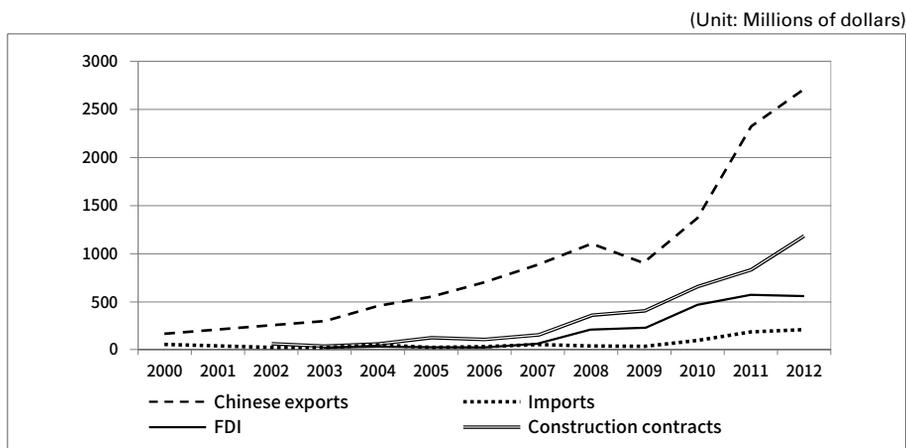
**Figure 13. China's Development Finance to Cambodia, 2000–2012**



Source: AidData (Accessed June 10, 2016).

China increased its aid to Cambodia from 23 million to 606 million dollars from 2000 to 2012. DAC aid to Cambodia has increased from 369 million dollars in 2000 to 587 million dollars in the same period (Figure 13). In 2012, Chinese aid to Cambodia was larger than all the aid from all DAC members combined.

**Figure 14. China's Economic Engagement with Cambodia, 2000–2012**



Source: IMF DOTS (Accessed July 16, 2016); CEIC, China Premium (Accessed August 9, 2016).

Although Cambodia's major export markets are the US and EU and the country is still a recipient of major Western FDI and development assistance, its economic relationship with China is becoming increasingly closer. China's economic engagement with Cambodia has been on a rapid rise for the last decade and even further accelerated since 2009 (Figure 14). This may be behind its support for China's position on the international stage. The most recent example of Cambodia's diplomatic alignment with China was its behavior in the aftermath of the ruling of the Permanent Court of Arbitration (PCA) in July 2016, where the international court decided in favor of the Philippines in its dispute with China. The Philippines brought the case to the PCA in 2013, arguing that China violated the United Nations Law of the Sea Convention (UN-

CLOS) following Beijing's actions in 2012 to forcibly take control of the Scarborough Shoal from the Philippines. China has been adamant in opposing any international judicial settlement and has insisted on bilateral negotiations with individual claimant states. Cambodia has consistently and forcefully supported China's position in contrast to most ASEAN member states. Right after the PCA ruling, it has been criticized for blocking the issuance of a joint statement at the ASEAN Foreign Ministers Meeting supporting the court's decision.

## **7. Conclusion**

This study finds that Chinese aid is associated with a number of commercial and foreign policy factors, but not in a way commonly thought. Globally, China indeed uses foreign aid to secure its access to natural resources and pursue strategic interests, yet ignores development needs and institutional merits of a recipient country. China's less-concessional, more commercial development financing is driven strongly by commercial variables. Yet once we allow for regional variation, China takes account of developmental, institutional, commercial and strategic factors quite differently across regions. For Asia, China's aid is driven by a mixture of recipient needs, export promotion and strategic interests. Its less-concessional official financing to the region is largely influenced by commercial factors.

With its economic power continuing to rise, China's geostrategic ambition will grow even stronger. Accordingly, its aid policy will be increasingly guided by foreign policy interests. In the Asian context, the South China Sea dispute may provide a good test case. China will continue to seek and expand its influence over the South China Sea in its efforts to project power across region and transform itself into a global power. In response to America's "Pivot to Asia" strategy declared in 2011, China became more assertive in the South China Sea and made the South China Sea issue as one of its "core interests" (Yoshihara and Holmes 2015). Indeed, the tensions between China and Southeast Asian

countries has intensified to a new level for the last few years. China has sent naval and fishing fleets into contested waters to secure its control, relocated an oil rig in the areas near the contested territory, and even constructed artificial island structures to fortify sovereignty claims. While China employed a wide range of heavy-handed approaches, it also made considerable efforts to build a support base among Southeast Asian countries using a generous offer of development assistance. Cambodia, as discussed earlier, is an example of a state increasingly aligning itself with the China's position amid increasing economic engagement. With the fast-changing geopolitical situations, the size of China's development finance and the way it is allocated may have already undergone a significant change in the past few years. Unfortunately, the AidData dataset ends in 2012 and thus it is unable to capture the trends of China's development financial flows after 2012. This is an issue that only an extended dataset can resolve and provides an exciting avenue for future research.

The key policy implications of this study are the following. As a donor, China is not unlike traditional ones, allocating aid according to a mixture of the recipient's need and self-interest. As a global practice, its aid allocation is particularly guided by resource security and strategic considerations. Since its aid behavior is quite heterogeneous across world regions, DAC donors, including Korea, should give sufficient attention to the regional context when they deal with the rising Chinese aid. In Asia, the strong correlation between Chinese exports and aid suggests that an almost likely increase in intra-regional trade is likely to strengthen China's position as a major donor. In strategic terms, China's aid strategy is not to engage in competition against existing donors over recipients. Yet, with the further expansion of Chinese aid to Asia inevitable, this is likely to change in the near future.

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See Table A2 for Data Sources.

**Table A1. Asian Countries in the Sample, 2000–2012**

Country	ODA (value, Billions of dollars)	ODA (project number)	OOF (value, Billions of dollars)	OOF (project number)	Region
Kazakhstan	5.01	10	19.03	22	Europe & Central Asia
Pakistan	3.59	131	17.15	30	South Asia
Philippines	3.12	15	0.04	6	Southeast Asia
Cambodia	2.94	142	2.61	23	Southeast Asia
Malaysia	2.44	8	0.00	2	Southeast Asia
Laos	2.35	34	6.54	25	Southeast Asia
Sri Lanka	2.30	54	3.85	31	South Asia
Indonesia	1.68	67	10.85	14	Southeast Asia
Bangladesh	1.03	52	1.41	15	South Asia
Nepal	1.01	80	2.30	7	South Asia
Uzbekistan	0.89	21	0.93	15	Europe & Central Asia
Fiji	0.89	35	0.36	4	East Asia & Pacific, non-SEA
Papua New Guinea	0.84	76	0.05	4	East Asia & Pacific, non-SEA
Kyrgyz Republic	0.74	39	0.31	4	Europe & Central Asia
Mongolia	0.69	22	0.91	2	East Asia & Pacific, non-SEA
Tajikistan	0.64	25	1.28	9	Europe & Central Asia
Afghanistan	0.56	49	0.02	1	South Asia
Myanmar	0.56	54	1.63	18	Southeast Asia
Thailand	0.51	27	8.48	5	Southeast Asia
Turkmenistan	0.47	6	11.03	8	Europe & Central Asia
Vietnam	0.30	28	3.05	14	Southeast Asia
Nauru	0.23	3	0.00	0	East Asia & Pacific, non-SEA
Tonga	0.13	30	0.00	1	East Asia & Pacific, non-SEA
Vanuatu	0.06	23	0.01	3	East Asia & Pacific, non-SEA
Maldives	0.05	14	0.62	4	South Asia
Azerbaijan	0.04	6	0.01	2	Europe & Central Asia
Micronesia	0.04	19	0.00	1	East Asia & Pacific, non-SEA

**Table A1. Continued**

Country	ODA (value, Billions of dollars)	ODA (project number)	OOF (value, Billions of dollars)	OOF (project number)	Region
Timor-Leste	0.03	35	0.00	2	East Asia & Pacific, non-SEA
Samoa	0.03	12	0.09	2	East Asia & Pacific, non-SEA
Cook Islands	0.03	6	0.00	1	East Asia & Pacific, non-SEA
Armenia	0.02	8	0.00	1	Europe & Central Asia
Niue	0.00	2	0.00	0	East Asia & Pacific, non-SEA
Turkey	0.00	4	1.36	4	Europe & Central Asia
Brunei	0.00	9	0.35	1	Southeast Asia
Cyprus	0.00	0	19.03	22	Europe & Central Asia

**Note:** Countries are presented in descending order of ODA values. In some observations, only information on the number of development projects, not the values, are available. Some of the countries were excluded from empirical analysis due to missing values in the explanatory variables.

**Source:** Author's calculation using AidData.

**Table A2. Data Sources**

VARIABLES		SOURCE
<b>Dependent variables</b>		
ODA	AidData	<a href="http://china.aiddata.org">http://china.aiddata.org</a>
OOF	AidData	<a href="http://china.aiddata.org">http://china.aiddata.org</a>
<b>Explanatory variables</b>		
GDP per capita	IMF WEO	<a href="https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx">https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx</a>
Disaster	EM-DAT	<a href="http://www.emdat.be/database">http://www.emdat.be/database</a>
Democracy	Polity IV	<a href="http://www.systemicpeace.org/polity/polity4.htm">http://www.systemicpeace.org/polity/polity4.htm</a>
China exports	IMF DOTS	<a href="http://data.imf.org">http://data.imf.org</a>
Natural resource wealth	World Bank WDI	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>
UNGA voting	Bailey <i>et al.</i> (2015)	See References
DAC ODA	OECD.Stat	<a href="http://stats.oecd.org">http://stats.oecd.org</a>
Taiwan recognition	Strange <i>et al.</i> (2015a)	See References
DAC ODA	OECD.Stat	<a href="http://stats.oecd.org">http://stats.oecd.org</a>
Population	World Bank WDI	<a href="http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators">http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators</a>
English speaking	CEPII	<a href="http://www.cepii.fr">http://www.cepii.fr</a>

**Note:** Unless otherwise indicated in the main text, all sources were accessed on August 9, 2016.

**Table A3. Summary Statistics**

Variable	N	Mean	Std. Dev.	Min	Max
ODA (Millions of dollars)	1,106	76.1	387.6	0.0	9492.2
OOF (Millions of dollars)	1,106	236.9	1266.5	0.0	28820.0
GDP per capita (Millions of dollars)	1,106	2832.2	3975.0	109.0	29870.3
Disaster (Million persons)	1,106	0.6	3.8	0.0	100.4
Democracy	995	2.1	5.7	-9.0	10.0
Control of Corruption	964	-0.5	0.6	-1.8	2.4
China exports (Millions of dollars)	1,097	1527.8	3629.0	0.0	31854.3
Natural Resource Wealth	1,059	6.0	12.2	0.0	90.5
UN Voting	1,089	0.916	0.067	0.342	1
DAC strategic values	785	0.0	0.5	-1.8	2.6
Taiwan	1,000	0.0	0.2	0.0	1.0
Population (Million persons)	1,106	28.0	52.6	0.1	1053.5

**Note:** All prices are in constant 2009 dollars.

**Source:** Author's calculation using data sources in Table A2. All prices are in constant 2009 dollars.

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## 국문요약

이 연구는 중국의 국제개발원조를 실증적으로 분석한 것으로 중국정부의 공식 원조 통계가 없는 상태에서 최근 차선책으로 개발된 대체자료를 이용하여 2000년부터 2012년까지 중국의 대세계 개발원조의 추이와 특징, 국가별 배분결정 요인을 살펴보았다. 기존 중국 원조연구가 아프리카 중심이었던 데 반해 이 연구는 전 세계를 분석대상으로 하였으며, 특히 아시아 지역에 대한 중국 원조의 추이와 특징 분석에 보다 초점을 두었다. 중국은 분석기간 동안 아시아에 대해 총 330억 달러의 원조를 시행하였으며, 최대 수원지역과 부문을 보면 동남아시아에 42%를, 에너지 부문에 41%를 공여하였다. 국가별 원조의 결정요인을 분석한 결과, 중국은 전 세계적으로 원조배분에 있어 경제적 실익과 전략적 가치를 고려하고 있는 것으로 보이며, 그 양상은 지역적으로 큰 차이가 있는 것으로 나타났다. 개발도상국을 아시아, 아프리카, 중남미로 구분해서 살펴보면, 중국의 원조 배분은 아시아에서는 주로 수원국의 부존자원과 기존 공여국과의 관계, 아프리카에서는 재난피해, 그리고 중남미에서는 정치제도와 관계가 있는 것으로 나타난다. 또한 원조와 달리 양허성이 약한 기타 공적자금을 같은 방식으로 분석해본 결과 중국의 비양허성 차관과 수출신용보증 등 기타 공적자금은 주로 개발수준과 리스크가 높은 국가로 유입되어 원조 배분과는 크게 다른 양상을 보였다. 중국의 원조전략이 지역적으로 다른 만큼 한국 등 기존 공여국은 중국원조에 대한 대응방안을 수립할 때 지역적 맥락과 특수성을 고려해야 하며, 또한 아시아에서 수원국의 전략적 가치가 중국 원조 결정에 이미 중요한 역할을 하고 있다는 점에서 향후 아시아의 지역경제질서가 재편되는 과정에서 기존 공여국들은 중국의 원조가 더욱 확대되는 것에 대비해야 할 것이다.

**핵심용어:** 중국, 아시아, 개발원조

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## **저서 및 논문**

『동남아 개발송금의 개발효과 분석』(공저, 2014)

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OH Yoon Ah

This study examines the determinants of China's development finance to developing countries with a focus on Asia from 2000 to 2012. It uses a recent version of China AidData, one of the most reliable and publicly available data sources that systematically collect and differentiate different types of China's official development financial flows. The findings show that China's allocations decision for concessional development flows, has mixed motives of humanitarian, commercial and strategic interests. It is noteworthy that China's aid appears not to be in competition against established donors in this period. Yet substantial regional variation is observed, suggesting different regional dynamics are at work.

