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China’s Official Finance in the Global South: What’s the Literature Telling Us?

https://doi.org/10.1515/roe-2021-0030
Received September 3, 2021; accepted August 23, 2022

Abstract: In the last two decades, there have been exponential increases in Chinese loans and grants, particularly flowing to the Global South. The subsequent growth effects in the South have led to speculation about China’s development models that govern its official finance and the overall macroeconomic effects. Consequently, a considerable body of research has investigated how different Chinese development policies affect the allocation patterns and outcomes in the Global South. This paper critically reviews related scholarly works, emphasising empirical literature. It identifies that the One China Policy is unanimously the most important strategy in explaining Chinese funding, although this policy tool may not be linked to trade with China and its humanitarian assistance. Chinese finance undermines efforts to promote good governance and contributes to political extortion and environmental degradation in recipient countries by not imposing governance reform conditionality on official financing. However, this argument must be carefully weighed against the positive impact of Chinese finance on health and economic growth, among other benefits. Despite intense research efforts, further research is still needed to understand vulnerabilities associated with China’s development models. The information conveyed by the review will be of interest to foreign aid spectators seeking to learn from China’s experience.

Keywords: finance, perspectives, development models, macroeconomic effects, Global South-China

We are grateful to Fanghong Sun, the editor of the journal and the referee for useful suggestions. We shall also gratefully acknowledge financial support from the Ford Foundation.

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1 Introduction

China plays a substantive role in the Global South,1 where its dominance of material power through astute use of development financing has enabled it to become the leading trading partner and a significant investor in the developing world. China’s official finance may be developmental, but it is not primarily based on official development aid (Bräutigam 2011). In fact, China’s official finance is broader than the development assistance programs conducted by the Development Assistance Committee (DAC) donors. Consistent with the Organisation for Economic Cooperation and Development (OECD) criteria, it contains Official Development Assistance (ODA) primarily intended to improve economic development in the recipient country. ODA flows convey at least 25% or higher grant elements, interest-free loans and concessional loans (fixed-rate, low interest). Based on the first edition of a Chinese white paper (State Council 2011), Chinese foreign aid falls into these three categories, two funded by China’s state finances and the third sponsored by the Export-Import (EXIM) Bank of China. However, most Chinese official finance comes as Other Official Flows (OOF), which consists of loans and export credits with little or no grant elements and grants that are not intended for development purposes but can be treated as aid (Bräutigam 2009, 2011). The subsequent inclusion of other credit instruments in foreign aid packages reflects China’s response to its development policies (Regilme and Hodzi 2021). The remaining categories, called Vague (Official Finance), capture other flows and cannot be assigned to either ODA or OOF (Strange et al. 2013). In the remainder of this paper, we use the term Official Finance regardless of its developmental or commercial intent as a shorthand for the full range of China’s official finance.2

Figure 1 shows the distribution of official finance, separating ODA and OOF (including vague) flows.3 The figure shows an increasing trend with fluctuations yearly, reflecting China’s multi-million-dollar deals or other loans (Dreher et al. 2017). Much of the increase in Chinese official finance is due to OOF-like flows (Dreher et al. 2017; Yoo 2020). Figure 2 shows that this discrepancy is primarily attributable to the sectoral distribution of ODA and OOF (including vague) flows. OOF flows are usually non-concessional; thus, they play a major role in the volume

1 The term Global South refers broadly to the regions of Latin America and the Caribbean, Asia, Africa, and the Pacific; most countries in the region (though not all) have low income and are often politically and culturally marginalised.

2 In line with other papers, total official finance can be treated as a proxy for Chinese foreign aid or development assistance, and provides an accurate comparison of official finance by Western donors (Bräutigam 2011; Dolan and McDade 2020; Dreher et al. 2019; Strange et al. 2017).

3 The data, which is accessed via AidData, mainly covers China’s bilateral contributions (Custer et al. 2021).
Figure 1: Chinese official finance over time by flow class, 2000–2017.
Source: Author’s calculation based on AidData’s Chinese Development Finance Dataset, Version 2.0.

Figure 2: Chinese official finance by sector and flow class, 2000–2017.
Source: Author’s calculation based on AidData’s Chinese Development Finance Dataset, Version 2.0.
of Chinese finance to economic (e.g., energy, transport) and production (e.g., agriculture, industry, and trade) sectors. By contrast, China mainly targets ODA allocation for the social sector (e.g., education, health), where economic returns of ODA are lower than in the economic and production sectors (Guillon and Mathonnat 2020).

 Nonetheless, the wide-ranging estimates – US$3.6 billion in 2000 to US$113 billion in 2016 – of official finance to the developing world (Figure 1) have significant implications for how China should be considered as a donor in comparison to traditional donors. In a global context, China is still a relatively small source of ODA flows but is catching up with top DAC donors. In 2010, China committed US$16.4 billion in ODA (Figure 3), which is only 25% of the total OECD-DAC ODA flows and about 30% of those of the US. While Chinese bilateral ODA was similar in volume to South Korea from 2000 to 2017, it reached 40–70% of other top DAC members (OECD 2021). Yet, Chinese ODA estimates are likely to be devalued since a substantial portion of Chinese official finance is labelled as vague (Custer et al. 2021).

Chinese official finance is channelled mainly to countries with poor governance, high poverty rates, or close diplomatic ties with China (Dreher et al. 2018; Guillon and Mathonnat 2020). Panel A of Figure 4 shows that China has significantly increased its contribution to Africa and Asia over time. Of the ODA finance provided by China to the two regions from 2000 to 2017, 42% was allocated to Africa and 38% to Asia (Panels B and C of Figure 4). However, in recent years, the amount of OOF financing that lacks development intent appears to rise in both regions. Therefore, aid proponents are increasingly evaluating China’s expanding commercial opportunism. Understanding how dynamics in this relationship impact recipient countries, what strategies China uses to allocate official finance, and how recipient countries achieve their objectives when negotiating with providers will be of interest to economic, political, and development geographers.

Under such a background, this paper reviews existing academic literature on China’s official finance to developing countries, particularly countries in the Global South. It provides a summary of the evidence, looking in particular at:

– What policies or development models govern Chinese official finance?
– How is Chinese official finance allocated?
– How effective is Chinese official finance?

This paper is organised as follows: Section 2 outlines official Chinese development models. Sections 3 and 4 provide an overview of the allocation patterns and the

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4 African countries generally have been seen as a testing ground for China’s diplomatic experiments (Bräutigam 2009).
effectiveness of Chinese official finance, highlighting their potential links with different development models. Section 5 concludes with some drawbacks of Chinese official finance.

2 Chinese Development Models

Numerous observers criticise assistance from Western donors as it acts to undermine local state capacity development (Deaton 2013). This is because funding is often wasted on inappropriate projects due to a lack of oversight and transparency, corrupt practices, and inefficient management and implementation (Matthews et al. 2016). The same holds for the Chinese donor community (Brazys and Vadlamannati 2021; Choi and Storr 2019). Still, compared to traditional Western

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5 These problems led to recent declines in the aid budgets of some of the world’s biggest donor countries, including the US (cuts of $2.3 billion or 7% in 2015–2016) and Australia (cuts of $761 million or 20% in 2015–2016, and $170 million or 7.4% in 2016–2017) (Matthews et al. 2016).
Figure 4: Chinese official finance over time by region, 2000–2017. 
Source: Author’s calculation based on AidData’s Chinese Development Finance Dataset, Version 2.0.
donors, China can reduce the administrative costs related to aid management and help its partners learn from aid projects to enhance their capacity to mobilise domestic resources and growth (Kilama 2016). Besides, China’s official financing has a reasonably strong philanthropic element, and the impact of official finance depends in part on a donor’s motive for providing it; there are some grounds for optimism about China’s ability to improve economic and social outcomes in the developing world (Dreher et al. 2018). In this sense, critics often point to China’s radically different development models that govern its official finance. Contrary to the Western approach, the Chinese development model arguably achieves its goals through projects that stimulate growth, including infrastructural improvement, educational investment, and technical support (Dreher et al. 2021b; de Soyres et al. 2020; Kadetz and Hood 2017; Martorano et al. 2020; Yang et al. 2020). At the same time, the Beijing government insists that prime contractors are awarded to Chinese companies, with most procurement sourced from Chinese supply chains.
That said, the Chinese development model offers a coherent economic diplomacy framework for promoting the development of the underdeveloped while simultaneously sponsoring China’s national interest. That leaves potential observers of the foreign aid model to figure out multiple variants of China’s official financing mechanism.

2.1 One China Policy

Since the mid-1950s, China has rewarded countries with official finance that abides by the One China Policy; that is, recipient countries that do not recognise Taipei’s government and have established diplomatic relations with China (Dreher and Fuchs 2015). Adherence to the One China Policy has been described as necessary to benefit from Chinese official financing. In fact, the One China Policy is a major factor behind the size and collection of Chinese aid flows (Bräutigam 2009; Dreher et al. 2018; Zhang and Smith 2017). China’s long-standing relationships with many African and Pacific island countries are based on this diplomatic tie, limiting Taiwan’s efforts to become an influential player in these regions. However, researchers revealed that trade with China and humanitarian assistance are less likely to be affected by this foreign policy issue (Johnston et al. 2015; Tubilewicz 2012).

2.2 The Japanese Aid Model – the Going Out Strategy

Since its economic reforms in 1978, China paved the way for the Going Out strategy. Based on the Japanese aid model, China linked its official finance with trade and investment. More specifically, the Chinese government agrees with the recipient state, allowing Chinese companies that usually receive support credit from the China EXIM Bank to operate the business and introduce their products in the local market in the sense that residents purchase Chinese goods and services (e.g., medical aid) (Johnston and Rudyak 2017). In 1992, China piloted projects that combined aid with trade and investment (Huang and Liu 2013) and formally

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6 Chinese contractors have the scale and expertise to build large-scale infrastructure, and a large supply of skilled workers at low cost compared to contractors from developed countries, which makes them very competitive (State Council 2014).

7 At present, only 14 nations recognise Taiwan as a sovereign country: Belize, eSwatini (formerly known as Swaziland), Guatemala, Honduras, Haiti, Marshall Islands, Nauru, Palau, Paraguay, St. Vincent and the Grenadines, St. Kitts and Nevis, St. Lucia, Tuvalu, and the Vatican City (Aljazeera.net 2021).
introduced them as a mode of cooperation in the mid-1990s, together with concessional loans channelled through the China EXIM Bank. In the aftermath of the Asian financial crisis of 1997, *Going Out* was formalised as a policy in 1999 to combat the impact of the crisis. In the year following the 2008 global financial crisis, slower growth in China since about 2011 underlined the need to utilise Chinese official finance to serve its economic interests. Typically, the Beijing government stressed expanding the scope of concessional loans and encouraging Chinese companies to participate in concessional loan programs to promote Chinese exports (Johnston and Rudyak 2017). This arrangement set a fruitful ground for what later became known as the *Angola Mode* trade arrangement. Despite its severe critique, Chinese companies – with varying levels of diplomatic and financial support – offered developing countries concessional loans for commercially viable projects in exchange for access to natural resources (including ports) that China lacks at home. However, statistical research demonstrates that less concessional loans, such as OOF-like finance, most likely serve the purpose of China’s commercial interests and outward investment than highly concessional ODA-like loans (Dreher et al. 2018). Since OOF is provided on terms that more closely resemble market conditions, the Chinese government prioritises OOF projects in sectors that yield strong economic returns. To this point, two of its credit instruments, export buyer’s credits or export seller’s credits, are worth noting since they are explicitly designed to advance China’s economic interests (Chen 2020; Dreher et al. 2018).

### 2.3 South-South Cooperation

The concept of *South-South cooperation* (SSC) gained prominence among the newly industrialised countries of the South, whose economic strength matched more equally than their asymmetric North-South relationships. While Brazil, India, and China are the crucial donors, the rise of China and its growing presence and engagement with the Global South has been a key catalyst in the emergence of SSC (Bräutigam 2009; Dreher and Fuchs 2015). China is uniquely positioned as a developing country to offer valuable insights to shape appropriate and effective development policies in fellow developing nations. China’s first white paper stipulates the SSC notion that one developing country helps another developing country, reflecting what is held to be a *Win-Win* development equation (State Council 2011). SSC is based on five major principles: (i) to help recipient countries

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8 This is similar to oil-backed syndicated loans made by major Western banks, although loans were not tied to development.
build up their self-development capacity; (ii) to impose no political conditions; (iii) to adhere to equality, mutual benefit, and joint development; (iv) to provide finance realistically while responding to needs in the best possible manner; and (v) to keep pace with the times, and pay attention to reform and innovation.

Over the past two decades, SSC was reinforced under the broad rubric of trade, investment, and technical and economic development assistance for projects, notably in the infrastructure and production sectors. Between 1980 and 2011, South-South trade as a share of world merchandise trade rose from 8.1 to 26.7%, with growth particularly remarkable in the 2000s (Owoko 2018). Sub-Saharan Africa (SSA) has become a major new source and destination for South-South trade. Between 1992 and 2011, China’s trade with SSA rose from US$1 billion to more than US$140 billion (Malik 2013). South-South investment has shown similar dynamism, with most investments in countries in the same region, often to neighbours and countries with shared languages. The largest outward investment is from China, with an investment stock of US$1.2 trillion (Campante and Chor 2012). Multinational enterprises, especially from India, Brazil, and South Africa, are stretching beyond their borders in greater numbers and leaving their mark in Africa, Asia, and Latin America.

Therefore, in line with the North-South cooperation, SSC has been just another financing modality endorsing generous financial help, exchange of experts, technical assistance, exchange of goods and services, information on best practices, and initiation to increase joint-negotiation capacities. However, China is still the world’s largest developing country; thus, when providing financial assistance to other developing countries under SSC, the Chinese government considers itself a partner (State Council 2021). To this point, the Belt and Road Initiative (BRI) that China announced in 2013 is a major platform. In summary, SSC is not yet positioned to replace North-South cooperation significantly. Thus, North-South and SSC can coexist in a constructive world where globalisation has reduced the relative distance between people and spaces.

### 2.4 Trilateral Cooperation

Trilateral cooperation refers to cooperation between a traditional donor (OECD-DAC donors and multilateral development agencies), an emerging donor (emerging economies such as China and India), and a recipient country (Fordelone 2013). It differs from bilateral cooperation that involves two states, as multilateral aid involves three or more states (or states of different types of relations) and specific institutional arrangements such as an independent secretariat (Stahl 2012). The concept of trilateral cooperation emerged from multilateral agencies.
such as the United Nations Development Program (UNDP) and OECD. It has gained momentum after the 2011 Buzan conference on aid effectiveness and adopting the 2030 Agenda for Sustainable Development Goals (SDGs).

Despite vast differences between China and traditional donors in terms of foreign aid policy in practice, some traditional bilateral donors desire to work strategically with China (or with other emerging donors) in implementing aid projects in other developing countries. This is justified by the belief that countries such as China possess specific strengths and relevant experience and have policies and instruments available to support development efforts in other countries. In this sense, traditional bilateral donors may provide funding or technical expertise, while China can provide experience and skills, highlighting their development efforts. Although initiated by multilateral agencies (State Council 2014), China also recognises the benefits of participating in trilateral cooperation while working within the framework of the SSC. Zhang (2018), for example, revealed that China attempts to use a trilateral approach to help its development resources and expand the scope of its development cooperation, learn from the best practices of traditional donors, improve its aid system, and build a favourable global image and bilateral relationship with traditional donors. But despite the acknowledgement of the gains the trilateral cooperation could generate, China remains cautious about putting such projects into operation, mainly due to three reasons: (i) huge transaction costs; (ii) political interference; and (iii) weak negotiation capacity of recipients (Carbone 2011; Zhang 2018; Zhou 2018). This observation indicates that China would not seek to apply the trilateral approach proactively relative to the other financing modalities (Chao 2021).

Consequently, the number and scale of trilateral projects in which China was involved remained relatively small over the decade, probably highlighting Beijing’s risk aversion toward such cooperation (Chao 2021). Most projects with Chinese participation are in Africa. These projects cover a range of areas, including agriculture, water supply, environmental protection, and technical training. Interestingly, although the Pacific is not a focus of Chinese official finance, it has been a testing ground for China’s trilateral cooperation. The China-Australia-Papua New Guinea malaria control project and the China-New Zealand-Cook Islands water supply project are China’s first two trilateral projects in the region (Zhang 2017).

2.5 Authoritarian Development Model and Non-interference

The contemporary Chinese development models may be characterised by the democracy-autocracy dimension because of the emergence of new authoritarian powers, such as China, Russia, and several Arab donors. A contribution by Bader
(2015) concludes that China tends to support autocracy by trading with authoritarian nations, while no evidence exists on the nature of Chinese autocracy promotion in activities like arms trade, aid projects, or economic cooperation. The Chinese position on such matters can be explained by the principle of non-interference in recipient states’ internal affairs, irrespective of the regime type.\(^9\)

Some scholars still argue that China might be biased towards autocratic regimes relative to democratic governments, as authoritarian leaders face less accountability to their citizens and enjoy more discretion when implementing a donor’s preferred policies, and at the same time, they bolster their power position (Bader 2015). This became apparent when the Chinese government repeatedly blocked or softened the United Nations Security Council (UNSC) resolutions that targeted other autocrats (Kleine-Ahlbrandt and Small 2008). Similarly, donors like the US and the European Union do business with many autocratic regimes and other states with poor human-rights records (Bader 2015; Bräutigam 2011). That suggests that Western donors are not too sensitive to matters of good governance and human rights, although, theoretically, their aid conditionality has given recipient governments less flexibility to pursue undemocratic policies (Collier 2007).

Critics interpret China’s authoritarian development models as a direct challenge to global liberalism and circumvent the American-led order. At the same time, it contributes to more corruption and a chaotic state because of the Chinese government’s desire to uphold the principle of non-interference (Naím 2007). Others argue that China is inclined to prevent political instability from putting the profitability of Chinese investment at risk (Large 2009). In summary, in a globalised world, China is more willing to negotiate and mediate between the two competing ends and, pragmatically, is more interested in engaging with governments that respond to Chinese interests and abide by the One China Policy.

### 2.6 Need-Based Model

The need-based approach is linked to China’s altruistic motives. On this notion, Dreher et al. (2019) state that Chinese official finance is demand-driven and thus more responsive to the needs of recipient countries.\(^{10}\) In fact, Beijing seems to

\(^9\) This approach is to a great extent risk-free for China because they tend to resort to other means to secure credit repayments, such as accepting natural resources as collateral for their loans rather than insisting on fiscal rectitude (Bräutigam 2009).

\(^{10}\) By contrast, several qualitative (Naím 2007; Taylor 2007a, b; Tull 2006) and quantitative (Amighini et al. 2013; Berthélemy 2011; Biggeri and Sanfilippo 2009; Guillon and Mathonnat 2020; Mourao 2018; Regilme and Hodzi 2021; Sanfilippo 2010) papers suggest that recipient countries need is not guiding Chinese allocation decisions.
consider demand-side needs when making ODA allocation decisions (State Council 2014).\(^\text{11}\) However, Chinese ODA allocation might depend on the sector considered (Dreher and Fuchs 2015; Guillon and Mathonnat 2020). For example, China tends to allocate more ODA to the social sector (e.g., health, education, or humanitarian), where economic returns of ODA are lower than to the economic or production sectors (Guillon and Mathonnat 2020; Reilly 2015; Zhao et al. 2018). Indeed, Bräutigam (2009) notes that China is becoming a major global power in the health sector, and since 2000, China has been one of the top five humanitarian aid providers among non-DAC countries (Smith 2011).

There is also consensus among scholars that China’s altruistic approach may be an important tool of its foreign policy (e.g., Dreher et al. 2011; Lin et al. 2016). In fact, China’s official financing in the health sector corresponded to its health diplomacy. For example, China’s health-related ODA has been an integral part of the country’s foreign policy tool since Chinese pharmaceutical firms have supplied their products to expand domestic companies’ market share, primarily in Africa (Dreher et al. 2018; Guillon and Mathonnat 2019; Zhao et al. 2018).\(^\text{12}\) Others suggest that China targets health aid preferentially to resource-rich countries with the shrinking of natural resources at home (Grépin et al. 2014).

Further, China’s altruistic motives may overlap with the interest of local political leaders (Dreher et al. 2019). In fact, local political leaders often enjoy substantial freedom over spending incoming aid flows, featuring traditional debates about aid fungibility (Cruzatti et al. 2020; Strange et al. 2017). That said, governments of developing countries faced with competing demands on their budget are believed to be willing and able to shift resources away from an activity for which donors are provided funding. Chinese official finance could increase the expenditure of the local government, which now has more flexibility to reallocate resources to other areas of government spending or alternative projects in different locations of the country (Cruzatti et al. 2020; Strange et al. 2017). Similarly, Chinese official finance could be more fungible when alternative funding sources are available from other donors (Cruzatti et al. 2020). The recipient might prefer not to implement a similar project that other donors would have financed. This might motivate the recipient government to implement alternative projects in the same location or a similar project for which the Chinese provide funding in a different geographic location. To this point, China is not indifferent to Western donors. Still, its arrangement is more flexible than the mechanism offered by traditional donors.

\(^{11}\) China’s aid projects generally originate with a request from aid recipients, which is then incorporated into China’s domestic policymaking process (Reilly 2015; Dreher et al. 2016).

\(^{12}\) The opposite argument in the literature suggests that past economic ties with China can be influential to secure access to medical equipment in crises (Fuchs et al. 2021).
and the project selection is most likely request-based (Nissanke and Söderberg 2011).

All this evidence raises the question of whether emerging donors like China can establish a new paradigm that moves beyond the pursuit of national interest and focuses on the recipient’s development needs in practice. Does the One China Policy discussed above potentially dominate the others? The following section answers these queries through the lens of China’s official finance allocation patterns.

3 Allocation

China is investing US$1 billion annually in assistance to fellow developing countries (Ahmed et al. 2022). Besides, BRI provides additional financing sources in Asia and elsewhere (OECD 2018). Western policy-makers often claim that China uses official finance for political gains and business opportunities and targets countries with poorer governance, but the evidence is mixed (Dreher et al. 2018, 2019; Guillon and Mathonnat 2020). Nevertheless, like the World Bank, official finance from China is geographically highly concentrated in many countries (Strange et al. 2017). Consequently, many factors that govern China’s allocation decisions may act in different directions. This observation has led recent studies to focus on the unit of analysis from the cross-country to subnational levels (Bluhm et al. 2018; Cervellati et al. 2021; Cruzatti et al. 2020; Dreher et al. 2019, 2021a; Gehring et al. 2022; Iacoella et al. 2021; Isaksson 2020; Isaksson and Kotsadam 2018a; Larthey 2021; Marchesi et al. 2021; Martorano et al. 2020). Moreover, Chinese allocation decisions might differ depending on the sector considered (Dolan and McDade 2020; Guillon and Mathonnat 2020). Therefore, it is worth exploring the allocation patterns of Chinese official finance and to what extent this allocation is influenced by China’s development models, as discussed above.

Recent empirical analyses show that China allocates funding in response to the needs expressed by recipient countries. In particular, Chinese ODA is allocated to poorer countries, as measured by GDP per capita (Broich 2017; Dreher et al. 2018; Dreher and Fuchs 2015; Hoeffler and Sterck 2022). However, the bias is towards smaller countries since it is cheaper to buy policy concessions from smaller countries (Dreher et al. 2011). Similarly, Chinese health ODA was allocated to the least developed countries (Zhao et al. 2018). In addition, medical teams were sent to countries with poor health human resources and anti-malaria centres were

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13 The exception to this rule is DAC donors who are willing to reward more populous countries (Dreher and Fuchs 2015).
established in countries with a high malaria burden. These elements suggest that the Chinese government responds to humanitarian or socio-economic needs when allocating the ODA.

Conversely, China provides less official financing to countries that recognise Taiwan. According to one study, countries with diplomatic relations with Taiwan do not receive ODA and OOF like Chinese finance (Yoo 2020). Regarding impact, recent work by Dreher et al. (2018) on Africa shows that countries that recognise Taiwan received almost 100% less in Chinese official finance. The magnitude of the impact is large, with similar evidence for Africa portrayed by Broich (2017) and Hoeffler and Sterck (2022). Turning to results by sector in Africa reveals that the association appears to be of greater magnitude for the production sector, while there is no difference in the effect of Taiwan’s recognition on the receipt of projects in the social and economic sectors (Guillon and Mathonnat 2020). These results support the notion that the recipient country’s respect for the One China Policy is important for securing either Chinese ODA or OOF loans. Other regional donors, such as Japan and South Korea, seem to see China as a competitor and give more aid to countries recognising Taiwan (Dreher and Fuchs 2015).

The other strand of literature underlines the prominence of political institutions in China’s allocation decisions. Evidence shows that Chinese ODA to Africa (Dreher et al. 2018; Hoeffler and Sterck 2022) and elsewhere (Dreher and Fuchs 2015) are not significantly correlated with local policies and institutions. Similarly, Chinese finance is not motivated by the political regime. The weakest positive correlation exists between the level of democracy and Chinese official finance (comprising ODA and OOF) in Africa and other regions (Broich 2017; Dreher and Fuchs 2015; Dreher et al. 2018). Put differently, China does not favour autocratic regimes over democracies as often hypothesised. This is consistent with the view that Western donors do not emphasise regime type significantly in aid allocation (Bader 2015; Dreher and Fuchs 2015). Yet, despite some evidence of China’s principle of non-interference in the domestic affairs of partner countries, results are not consistent. China prefers to allocate OOF-like loans to African countries with higher corruption levels (Dreher et al. 2018). The same holds for Chinese ODA projects in Africa (Guillon and Mathonnat 2020). In contrast, Yoo (2020) demonstrates that a corrupt government has a lower probability of receiving OOF-like finance. This is in line with the observation that traditional DAC donors favour recipients with better institutions (Dreher and Fuchs 2015). These examples offer two competing arguments for Chinese OOF-like flows: the positive correlation is

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14 By contrast, Annen and Knack (2020) found that Western aid had become more sensitive to institutional quality in recipient countries, but this relationship was compromised when the Beijing government provided large-scale financing (in excess of US$2 billion).
attributable to profit-oriented financial transactions between China and partner countries, among others. While the negative correlation refers to the fact that Chinese OOF loans are typically set at market interest rates enabling the Chinese government and Chinese firms to ensure repayments from countries with higher levels of institutional quality (Dreher et al. 2018). In line with the principle of non-inference, the former possibility might push some recipient countries to distance themselves from the practice of good governance, while the latter suggests the opposite (future research can explore which effect will dominate).

In line with the Going Out strategy, Chinese official finance is often tied to commercial interest, such as promoting trade. Indeed, Dreher et al. (2018) assert that only the allocation of OOF to Africa is associated with recipient countries’ trade with China (Biggeri and Sanfilippo 2009). Quantitatively, a 1% increase in trade with China increases OOF by 0.7%. The same observation is true for Western donors (Dreher and Fuchs 2015). By contrast, the volume of imports from China are not driving the correlation between the volume of Chinese official finance (comprising ODA and OOF) and commercial interests (Broich 2017; Yoo 2020; Zhao et al. 2018). This finding is further supported by Guillon and Mathonnat (2020). They find that number and value of ODA projects in the economic sector in Africa decrease with an openness rate to China, where aid and trade can easily be tied. This negative effect is surprising given the perceptions about China’s finance for commercial reasons. Still, it makes sense when recipient countries have very weak trade relationships with China to begin with (Broich 2017).

Similarly, the link between China’s commercial interests and the extraction of natural resources in recipient countries is ambiguous. A study by Broich (2017) reveals a highly significant positive relationship between oil rents and Chinese official financing (comprising ODA and OOF) in Africa. However, Dreher et al. (2018) state that African oil-producing countries receive more OOF but not more ODA. Others refute the popular claim that Chinese official finance focuses on countries with larger oil production (Dreher and Fuchs 2015; Yoo 2020). The same holds for other natural resources, such as gas, coal, and minerals or the combination of all available resources (Broich 2017; Dreher and Fuchs 2015). Similarly, Western donors do not consider natural resources when deciding on their allocation of aid (Dreher and Fuchs 2015). In summary, there is scant evidence that natural resources guide Chinese official finance. After disentangling ODA-like loans from OOF-like loans of Chinese official financing, it appears that only less concessional forms of OOF-like finance matter.

More recent studies demonstrate that Chinese official finance leads to political preferencing at the subnational level due to aid fungibility. For example, Dreher et al. (2019) show an almost 100% increase in official finance to birth regions of African leaders compared to the other regions. This huge effect was demonstrated
in related work for Africa (Dolan and McDade 2020). There is also evidence that Chinese official finance (not just ODA) is likely to divert to regions in Africa with a higher concentration of incumbent supporters, but the evidence is mixed (Anaxagorou et al. 2020; Knutsen and Kotsadam 2020). Once Chinese official finance is disaggregated to the sector level in Africa, results point to significant political preferencing in the social sector (Dreher et al. 2016; Dolan and McDade 2020). In contrast to Chinese official finance, World Bank aid does not disproportionately benefit the political leaders’ birth regions (Dreher et al. 2019) or influence voting (Anaxagorou et al. 2020) in Africa. Taken together, Chinese official finance is susceptible to manipulation, which may not occur if China was bound to the same transparency principles as OECD member countries (Dreher and Fuchs 2015).

To summarise, China has been upholding different approaches in making allocation decisions. The One China recognition principle is the most important policy in explaining China’s official finance allocation. It can be considered the major exception to China’s position of not attaching political conditionality to its official global finance. Moreover, the notion that access to natural resources determines the allocation of China’s official finance is overstated. Nevertheless, Chinese finance is found to be misused – the outcome that can differ according to the host country’s institutional settings. Therefore, it is crucial to understand the consequences of Chinese official finance allocation patterns from the recipient’s perspective. This is discussed in the following section.

4 Effectiveness

The country’s allocation of Chinese official assistance provides valuable information on their effectiveness. Most work focuses predominantly on the economic and political aspects of China’s investments and trade (e.g., Alden 2007; He 2013; Johnston et al. 2015; Mourao 2018; Luo et al. 2021); however, the geographical, environmental, and socio-economic implications of the allocation of China’s official finance is increasingly important. Especially after the Paris Declaration of 2005, in which both donors and recipient governments agreed to take steps

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15 Beijing, however, refutes these accusations and states that Chinese aid is usually tied to the purchase of goods and services from Chinese firms, thus limiting the amount of cash that respective governments can directly access (Yongzheng and Nkunde 2012).
16 China built schools and hospitals in African leaders’ hometowns (Reuters 22 July 2018; Brautigam 2012).
17 The opposite pattern is observed in Kenya (Briggs 2014; Jablonski 2014).
18 The 2005 Paris Declaration on Aid Effectiveness emphasised that aid should support ownership, harmonisation, alignment, results, and mutual accountability.
toward increasing aid effectiveness, it is important to understand the implications of increased Chinese funding in receiving countries.

### 4.1 Economic and Political

China’s official finance increases economic growth in recipient countries (Berthélemy 2011; Dreher et al. 2021b; Woods 2008).\(^\text{19}\) Dreher et al. (2021b) show that for the average recipient country, total official finance (comprising ODA and OOF) boosts economic growth between 0.41 and 1.49% 2 years after the financial commitment. Yet, the effect is larger for ODA flows. The same holds for ODA project numbers (Dreher et al. 2021b). At the same time, significant official financing from China does not undermine the growth effects of bilateral ODA from Western donors (Dreher et al. 2021b). Moreover, China’s official finance for agricultural development has created avenues for economic growth. Recent work by Lartey (2021) shows that Tanzanian villages located within 25 km of Chinese ODA-financed projects increased agricultural productivity between 9 and 12.6%. Economic sector projects mainly drive these results.

At the same time, it has been argued that China’s official finance could undermine growth prospects in recipient countries by encouraging poor policies. The absence of institutional conditionality makes Chinese official finance attractive to local leaders, who believe institutional reforms might undermine their domestic support bases. Besides, cash grants, or other forms of public budgetary support, may enable local governments to function without raising revenue from domestic sources (Strange et al. 2017). To this point, Brazys and Vadlamannati (2021) demonstrate that Chinese ODA flows actively hinder economic reforms, while ODA flows by Western donors promote those reforms. Taken together, the growth effects of Chinese official finance are conditional on recipient political institutions.

Along with economic growth, Chinese government-financed projects (either ODA or OOF or both) reduce economic inequalities within and between regions in recipient countries (Bluhm et al. 2018). A similar result does not hold for World Bank-financed projects. Others find that Chinese official finance (comprising ODA and OOF) to Africa is more prone to political capture at the subnational level than traditional Western aid; thus, resources are more diverted to wealthier locations, which in turn may widen existing regional inequalities (Dreher et al. 2021a).

Many others demonstrate that China’s official assistance catalyses trade since frequent recipients of Chinese government loan- and grant-financed projects also

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\(^\text{19}\) However, Busse et al. (2016) demonstrated that Chinese aid in Africa impaired growth prospects; although they have no direct measure of aid.
tend to attract higher levels of Chinese trade and investment (Alden 2007; Busse et al. 2016; Liu and Tang 2018; Morgan and Zheng 2019). For example, Africa tends to improve its terms of trade with China by increasing the demand for African exports (e.g., natural resources) and reducing its domestic inflation with cheap Chinese manufactured products. In related work, He (2013) found that imports from China significantly positively impacted SSA countries’ exports in all chosen sectors. Still, many partner countries face considerable trade imbalances with China, notably in Africa. China’s absolute labour costs and resource advantage can put Africa’s local industries under immense pressure. A similar argument also holds for countries in Latin America (Jenkins et al. 2008; Jenkins 2012; Sargent and Matthews 2009).

The other strand of literature focuses on the influence of China’s official finance on firm performance. Marchesi et al. (2021) show that contrary to World Bank projects, Chinese ODA projects enhance local firm sales by releasing infrastructure bottlenecks. This result is consistent with others who found that trade among BRI countries or BRI connective infrastructure projects resolved spatial bottlenecks (de Soyres et al. 2019, 2020; Maliszewska and Van Der Mensbrugghe 2019; Ramasamy and Yeung 2019; Yang et al. 2020; Zhai 2018) and enhanced total factor productivity (Yang et al. 2020).

Although China’s official finance promotes trade ties, there is evidence that Chinese firms, especially in Africa, offer lower wages than the national wages or other foreign firms (Baah and Jauch 2009; Coniglio et al. 2015; HRW 2011; Lee 2017; Tang 2016). The exception to this rule is that Chinese firms opt to pay higher wage premiums to attract higher-quality workers, notably in industrial zones (Fei 2018). In addition, wages may be lower in some cases, but this is compensated for by job stability (Lee 2017).20 Regarding work conditions, Chinese investors have a reputation for labour abuses in terms of long working hours, lack of written contracts, and casualisation (Dubinsky 2021; Lee 2017; Rounds and Huang 2017; Sun et al. 2017). Critics also condemn Chinese investors for crowding out local employment by bringing their citizens (Bräutigam 2009; Jenkins et al. 2008; Jenkins 2012; Sargent and Matthews 2009; Wegenast et al. 2019), and this trend is especially common in sectors which require professional management and techniques (Tang 2016).21 Although current reports and articles offer competing arguments, many postulate relationships based upon little or no empirical evidence. Indeed, studies

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20 Besides, labour unions contribute to wage equalisation among foreign firms in the same sector, as observed in South Africa (Huang and Ren 2013).

21 However, recent work by Cervellati et al. (2021) suggests that local malaria exposure in Africa impedes the employment and productivity of Chinese migrant workers and thus attenuate the effects of aid-funded projects.
are scarce (all but Coniglio et al. 2015), which allow for a direct link between the China-funded projects and labour standards in recipient states.

The other strand of literature discusses the risk that less concessional loans from emerging donors may prejudice their debt situation (Manning 2006). The availability of loans from China has been viewed as threatening concerted efforts to improve debt sustainability in poor African countries (Marson and Savin 2022). An example of this notion is the role of BRI infrastructure projects that result in rising public debt-to-GDP ratios (Bandiera and Tsiropoulos 2020; Hurley et al. 2019). Without adequate donor coordination, Chinese official assistance (particularly ODA) would increase the administrative burden on recipient governments (Kragelund 2008). However, Kilama (2016) provides evidence that recipients from Africa and elsewhere have enhanced their fiscal response to funds from traditional and emerging donors through an increased domestic economy aid absorption rate. Still, as we discussed below, in countries where corruption is enhanced and democracy is impaired by China’s finance, the debt tolerance in a host country is the subject of continued speculation.

Turning to political aspects of Chinese official finance, some observers attempt to understand the effects of Chinese activities on the democratic-autocratic setting. In the presence of the Chinese non-interference principle in the internal affairs of domestic countries, host-country leaders often choose policies that could harm the democracy of recipient countries or undermine the democratising effects of Western aid, but the evidence is mixed (Bader 2015; Broich 2017; Dreher and Fuchs 2015; Kersting and Kilby 2014; Li 2017). While aid from traditional Western donors tends to result in a higher acceptance of democratic regimes (Gehring et al. 2022), their strategy may contribute to autocratic stability (De Soysa and Midford 2012).

Along with the same non-interference principle, Chinese official finance may impact corruption in recipient countries. For example, Isaksson and Kotsadam (2018a) found that Chinese projects financed by ODA-flows led to local corruption in African states over the 2000–2012 period. The results are also robust when they include total official finance (comprising ODA and OOF). A similar finding was described by Brazys et al. (2017). Taking advantage of spatial data for Tanzania, they found that the location of the Chinese project was associated with people more often reporting experiences with corruption. This relationship only holds, however, for OOF-like projects. Conversely, World Bank aid projects are associated with fewer experiences of corruption, but this relationship disappeared when Chinese projects were nearby. Overall, this evidence claims that Chinese finance leads to political instability and instigates corruption at the local level. Concerning the latter, the differentiation of the Chinese official finance is an important consideration when justifying quantitative results. Nevertheless, to what extent it impairs the effectiveness of Western assistance needs more empirical support.
More recent work highlights the effects of Chinese projects on conflict and civic engagement (Isaksson and Kotsadam 2018b). In a more democratic setting, localities in Africa that received a large number of Chinese projects financed by ODA or OOF-like flows or both were likely to experience protests since increasing Chinese influence at the subnational level lowered trust in the local government (Iacoella et al. 2021). In contrast, regions with more Chinese projects were associated with African government repression in the autocratic regime. With World Bank aid, the fear of political intimidation or violence was lower in local areas in Africa (Gehring et al. 2022). Yet, despite some evidence of the positive impact of Chinese official finance on civil conflict, the results are inconsistent. For example, Strange et al. (2017) found that Chinese official finance could deter civil conflict in Africa when aid flows from traditional donors were unavailable. They conclude that if Chinese official finance comes with no strings attached, recipient governments will have more flexibility in using aid to stabilise local conflict during a negative aid shock. This same relationship holds at the subnational level in SSA countries (Gehring et al. 2018) and for World Bank aid. These findings point to the fact that Chinese official finance is sometimes fungible, but there is no consensus about how Chinese official finance mitigates conflicts at a disaggregated level.

4.2 Social and Environmental

China has been very active in the education and health sectors, mainly driven by recipients’ needs (State Council 2014). Chinese official finance can influence social outcomes in developing countries directly and indirectly. The direct effect occurs when implementing aid-funded projects, such as infrastructure, results in better education and health outcomes (Dubinsky 2021; Grépin et al. 2014; King 2010; Will 2012). Indirect effects may follow when aid-funded projects improve household wealth, skills, and knowledge by providing training or technical experts, medical equipment, and medicines (Kadetz and Hood 2017; King 2010, 2014; Shajalal et al. 2017). A study by Martorano et al. (2020) substantiates the notion of indirect effects of Chinese finance with georeferenced household data for SSA countries over the 2000–2012 period. The authors find that the presence of Chinese projects results in almost half a year of additional schooling and reduces child mortality by 0.9% in recipient countries. These results are similar to what others have found for Western aid and its effects on education and health (Kotsadam et al. 2018; Riddell and Niño-
Zarazúa 2016). However, Cruzatti et al. (2020) show that the fungibility of Chinese health aid can lead to alternative outcomes, at least at the local level, but similar evidence is not found for World Bank projects. Taken together, these results suggest that some anomalies at the local level do not undermine the social benefits of Chinese official finance at the aggregate level and point to careful analysis of the impact of Chinese finance at the sub-national level.

The other strand of literature focuses on the environmental impact of Chinese official finance, notably in the energy sector in Africa (Jenkins 2018). Chinese companies in Africa contributed to the depletion of the marine resource base and have caused the loss of biodiversity and the abuse of forest communities’ rights (Shinn 2015). Similarly, Chinese demand for Latin American natural resources has severely strained water supplies and increased deforestation and greenhouse gas emissions in the region (Ray et al. 2015). Further, China reallocates some of its highest pollutant industries (e.g., steel, glass, leather, and cement) to Africa, Latin America, Eastern Europe, and other parts of Asia (Roberts 2014). It can be expected that in the absence of any conditionality (e.g., environmental and social protection responsibilities), Chinese finance and outward investment will weaken the quality of governance in recipient countries and put immense pressure on ecological standards (Ray et al. 2015; Shinn 2015).

It is worth noting that much of the above research is conducted without raw data. We believe that despite all the obvious information obstacles, these findings are reasonable considering the broader context of natural hazard trends in SSA and Latin America. Arvin and Lew (2009) provide a relevant reference point for this insight. They examine the relationship between Western aid and ecological harm in developing countries and suggest that aid flows cause carbon emissions, water pollution, and deforestation. This observation indicates that further research is needed to understand the environmental impacts of Chinese-funded projects and their differences and similarities with established Western donors.

Moreover, further work is needed to better understand how pollution can be restrained. Generally, Western donors can help improve environmental quality by tying aid with sensible pollution policies (Chao and Yu 1999; Hatzipanayotou et al. 2002). At the same time, implementing complementary policy frameworks at the local level is necessary (Arndt and Tarp 2017). BenYishay et al. (2016) and others (Jiang et al. 2021) echo this point, noting that when local ecosystems are appropriately protected and internal environmental governance plays a crucial role in avoiding negative externalities, Chinese-funded projects need not lead to widespread environmental damage.

All this evidence suggests that China appears to be a crucial emerging donor to its recipients. Still, to some extent, it poses risks such as supporting political
favouritism, leading to corruption or environmental pollution while weakening the quality of governance, accountability, and respect for human rights.

5 Conclusions

Drawing on the available literature, this paper broadens our understanding of China’s various development models, highlighting their potential links with the allocation patterns and the effectiveness of Chinese official finance. It can be argued that different development models shape China’s allocation patterns; however, adherence to the One China Policy appears to be a key strategy. Nevertheless, need considerations also play important roles. Further, Going Global within the framework of the SSC has become China’s potential mechanism for driving its commercial interests. Whether China abides by the principle of non-interference and is indifferent to the political regime type in making allocation decisions is the subject of continued controversy and debate.

The allocation patterns of Chinese official finance offer valuable information on its effectiveness. The review shows that Chinese official finance can contribute substantially to economic growth and better education and health outcomes, and reduce income inequality in recipient countries, even if there are still challenges to achieving its full potential. Nevertheless, China-funded projects can create negative externalities, such as local level corruption, abuse of international labour standards, public acceptance of authoritarian norms, government-initiated violence against political opponents, and environmental degradation. Further, China is interested in financing highly visible projects and programs (e.g., cultural centres, government buildings, and stadiums) that offer limited or transitory economic benefits (Will 2012).

Still, China’s efforts appear to be popular and are successful in some contexts. China has also recently stepped up not financing projects overseas that contribute to environmental destruction (e.g., coal power plants). Beyond such positive developments, there has been a contraction in Chinese official finance worldwide since 2017, and this is unlikely to return to 2016 levels in the foreseeable future. The recent slowdown indicates that there may be a crucial shift in Chinese development policy. The nature of the shift is in question since how far these policies lead and promote development processes is fundamental to making Chinese finance more effective and enhancing its impact. In addition, Beijing’s trilateral cooperation is still in the early implementation stage and remains a small part of the official finance programme. Obstacles to China’s trilateral cooperation remain. Whether and how China and traditional donors can overcome these obstacles and conduct more trilateral cooperation deserves more research in the future.
Research funding: This work was funded by Ford Foundation (136551).

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