

Governance, foreign aid, and Chinese foreign direct investment

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Abstract

This article examines how Chinese foreign aid interacts with the quality of the host country's governance in shaping Chinese state-owned enterprises' (CSOEs') foreign direct investment (FDI) in Africa. By analyzing the firm-level greenfield FDI data of CSOEs between 2003 and 2014 and distinguishing between China's official development assistance and less concessional forms of Chinese foreign aid, we reveal two main findings. First, the quality of the host country's governance negatively affects CSOEs' FDI. Second, other official aid and loans from China negatively moderate the relationship between the quality of the host country's governance and FDI by CSOEs. Specifically, the tendency for CSOEs to invest in locations with weak governance increases when their investments are integrated with less concessional forms of Chinese foreign aid in the form of other official flows and loans. Our results are robust to alternative measures of the governance and different methodological approaches. The article challenges the traditional notion of institutional theory which assumes a positive relationship between governance quality and FDI attraction.

KEYWORDS

foreign aid, foreign direct investment, governance, international political economy, state-owned enterprises

1 | INTRODUCTION

The effect of national institutions of governance on foreign direct investment (FDI) has attracted a great deal of attention, with several studies suggesting a positive relationship between governance-related factors and FDI flows (e.g., Bevan, Estrin, & Meyer, 2004; Du, Lu, & Tao, 2008; Liou, Chao, & Yang, 2016; Meyer, 2001; Meyer & Nguyen, 2005). In short, better governance leads to more inward FDI, with potentially positive impacts on productivity and economic growth. Consequently, developing economies such as those in continental Africa have been encouraged to improve the quality of their governance, including enforcing the rule of law and controlling corruption, to attract more foreign investment (Ajide & Raheem, 2016; Asiedu, 2004, 2006).

The growth in outward foreign direct investment (OFDI) by emerging market multinational enterprises (EMMNEs) has challenged

the prevailing notion that a higher quality of governance in the recipient country equates with higher levels of FDI, even leading to questions about the effect of EMMNEs' FDI on the formal institutions in the least developed countries (Fon, Filippaios, Stoian, & Lee, 2021). For instance, research suggests that EMMNEs have a strong propensity to invest in countries with low-quality governance and weak institutional frameworks (Buckley, Chen, Clegg, & Voss, 2018; Wu & Chen, 2014), especially in other developing economies (Arita, 2013; Cuervo-Cazurra, 2006). The home government's role in influencing the location decisions of EMMNEs is a significant reason for this choice (Cuervo-Cazurra, 2012; Wang, Hong, Kafourous, & Boateng, 2012).

Home governments to MNEs may have a hidden agenda at the forefront of their investment decisions, especially in dictatorships who play by a different set of rules (Li & Alon, 2020). Therefore, they

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pay little or no attention to the quality of the governance in the host location (Clegg, Voss, & Tardios, 2018; Cuervo-Cazurra, Inkpen, Musacchio, & Ramaswamy, 2014). The heavy involvement of the Chinese government in international projects indicate the strong influence of the Chinese government on the FDI activities (Luo, Xue, & Han, 2010), with many state-owned enterprises (SOEs) engaging in OFDI (Liang, Ren, & Sun, 2014).

African countries have witnessed a sharp rise in Chinese FDI inflows since the launch of the FOCAC in 2000 (UNCTAD, 2017). For example, the Chinese Belt and Road Initiative (BRI), designed to connect China to Europe and beyond, encourages investments in locations with a high level of political risk including Africa (Zhang, Alon, & Lattemann, 2018). In East Africa, the BRI is reflected in the building of physical infrastructure, particularly ports and railways, and is carried out largely by Chinese state-owned enterprises (CSOEs). For example, in Kenya, the major BRI projects include the construction of a modern port in Lamu and the Mombasa-Nairobi standard gauge railway constructed by the China Road and Bridge Corporation.¹ In Ethiopia and Djibouti, the Djibouti-Addis railway line was constructed by the China Railway Group and China Civil Engineering Construction Corporation, providing landlocked Ethiopia with access to the Djibouti seaport of Doraleh.² While East Africa has been highlighted as an important sub-region in Africa for BRI-related projects, there are active BRI-related negotiations between China and many African countries. Indeed, during the 2018 Forum on China and Africa Cooperation (FOCAC) it was announced that 37 African countries had signed memorandums of understanding (MoU) regarding the development of physical infrastructure across the continent and to promote the BRI.³

We challenge the traditional notions of institutional theory which suggest a positive relationship between host country governance and investment, especially as it relates to Chinese state-led investments. The Chinese government's significant influence in Chinese OFDI suggests that weak governance institutions may not deter their multinationals (Haglund, 2008; Kolstad & Wiig, 2011). Furthermore, recent research has shown that countries characterized by institutional fragility tend to attract more Chinese FDI, particularly if the host country is part of the BRI (Sutherland, Anderson, Bailey, & Alon, 2020). Indeed, CSOEs are more likely than non-SOEs to provide FDI in countries with poor governance (Quer, Claver, & Rienda, 2018). The tendency to invest in such locations is largely due to the political economy of China in which the government has a great deal of influence on domestic business activity as well as the OFDI activities of Chinese MNEs. Therefore, the political and geopolitical objectives of the state can trump the economic objectives for engaging in FDI. Thus, we expect that the quality of governance in a country will have the opposite effect on the FDI location choices of CSOEs than it would on their counterparts from developed economies. The former are more likely to invest in countries with poor quality governance, whereas the latter tend to invest in locations with better institutions of governance. Furthermore, we argue that the tendency to invest in locations with weak governance is exacerbated when the state FDI projects are combined with foreign aid.

Thus, we use a political economy approach to investigate the Chinese government's role in the FDI decisions of CSOEs in Africa

through its foreign aid policy. We do so by examining the moderating role of Chinese foreign aid on the impact of the quality of the host's governance on the FDI location decisions of CSOEs. Research on how the foreign aid policy of the home country's government affects the FDI location decisions of CSOEs has attracted limited attention in the international business literature. In addition, the few studies (e.g., Biggeri & Sanfilippo, 2009; Dong & Fan, 2017; Lu, Huang, & Muchiri, 2017) examining this topic have failed to separate Chinese official development assistance (ODA) from more commercially oriented forms of state finance. Table A1 provides a summary of the key extant empirical literature on Chinese foreign aid and FDI.

We add to the limited number of studies on this topic by distinguishing between concessional and less concessional forms of Chinese foreign aid. To do so, we use the standards of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) that separate ODA from other official flows (OOF). According to the OECD's Development Assistance Committee, ODA is concessional in nature. Such assistance is designed to promote economic development and welfare in the recipient country, and 25% of it is a grant. In contrast, OOF and loans are less concessional. They are not intended primarily for development in the recipient country. Instead, they are more commercially oriented forms of state financing for overseas activities and are provided on conditions that are closer to market rates.

By distinguishing between Chinese ODA, OOF, and loans, we argue and show that it is the less concessional forms of Chinese foreign aid—OOF and loans—that shape the FDI location decisions of CSOEs because they are allocated to advance the economic interests of China. China follows a policy of noninterference whereby decisions to allocate OOF and loans are made with little consideration about the quality of governance institutions (Tan-Mullins, Mohan, & Power, 2010). This noninterference policy contrasts with the conditional approach of Western donors and Bretton Woods institutions such as the IMF (Hernandez, 2017). With this difference in mind, we argue that the tendency for CSOEs to invest in countries with weak governance is exacerbated when their investments are tied to Chinese OOF and loans. Building strategic alliances, protecting its economic interests, and expanding its sphere of influence in Africa at the expense of the West are paramount for Beijing (Campbell, 2008).

We focus on CSOEs for several reasons. First, CSOEs are directly controlled by the Chinese government (Duanmu, 2012; Rudy, Miller, & Wang, 2016), the provider of Chinese foreign aid. We expect the FDI activities of CSOEs in African countries to be somewhat different from other SOEs from developed economies operating in developing economies because “the Chinese government offers far more comprehensive support packages and has stronger control over these firms' strategies” (Peng, 2012, p. 103).

Second, their internationalization strategies differ from those of private firms (Amighini, Rabellotti, & Sanfilippo, 2013). The government-orchestrated “Go Global” policy resulted in many “corporatized” CSOEs investing overseas in regions like Africa with state support (Fornes & Butt-Philip, 2014). As a result, they are likely to

align their activities abroad with the strategic objectives of the Chinese government (Bass & Chakrabarty, 2014). Third, CSOEs are more likely to follow Chinese foreign aid in Africa, particularly commercially oriented forms of state finance. Due to the Chinese government's direct control, CSOEs may enjoy preferential access to Chinese state finance. These tools promote their internationalization (Dong & Fan, 2017) and safeguard the economic interests of their home country (Guillon & Mathonnat, 2020).

This article makes two key contributions. First, it improves our understanding of the relationship between the host country's institutional environment and FDI. We demonstrate that, in the case of CSOEs in Africa, better quality governance in the host country does not equate to more FDI. This result contrasts with the experience of MNEs from developed countries. Second, we show how a critical tool of foreign policy—foreign aid—moderates the negative impact of the quality of the host country's governance on FDI by CSOEs. We also demonstrate that CSOEs' ability to invest in countries with weak governance increases when their investments follow less concessional forms of Chinese foreign aid.

2 | THEORY AND HYPOTHESES

2.1 | Theoretical background

This article extends the new institutional economics' approach to international business by identifying foreign aid as an instrument of foreign policy that can shape the impact of governance on FDI. New institutional economics explains the differences in various economies' performance (North, 1990; Williamson, 2000). It maintains that the differences are contingent on the institutional context in which economic exchange processes occur (North, 1990). North (1990) defines institutions as the “rules of the game in a society or, more formally, the humanly devised constraints that structure the political, economic, and social interaction” (p. 3).

While new institutional economics encompasses formal and informal institutions, we focus on the formal institutions of constraints and rules originating with the government or its branches. Thus, formal institutions such as the constitution, laws, and regulations form part of the official governance that is enforced through the government (Dixit, 2009). Without good quality institutions, governance will deteriorate, leading to more uncertainty in economic exchanges and higher transaction costs. Transaction costs refer to the expenses associated with economic exchanges. They include the costs of protecting and enforcing property rights arising from the incomplete information about the opposite party's behavior in an economic exchange (Williamson, 1981).

Applied to FDI patterns, the approach of new institutional economics to international business posits national governance as an essential aspect of a country that can impact its attractiveness to foreign investors (Globerman & Shapiro, 2002; Hennart & Park, 1994; Jensen, 2003; Kuzmina, Volchkova, & Zueva, 2014; Morrissey & Udomkerdmongkol, 2012). Governance is defined as the traditions

and institutions by which authority in a country is exercised (Kaufmann, Kraay, & Mastruzzi, 2010) and is partly grounded in the formal institutional fabric of a country (Williamson, 1998). Research suggests that the quality of governance matters for the flow of foreign investment and decisions about where to make investments (e.g., Bevan et al., 2004; Grosse & Trevino, 2005; Wheeler & Mody, 1992). Context-specific studies on African countries show that “good” governance is good for business (Bartels, Napolitano, & Tissi, 2014; Ngobo & Fouda, 2012). Furthermore, the lack of clarity about future rules and regulations in the economy can prompt the flight of foreign investors (Barnard & Luiz, 2018).

Notwithstanding the importance of an effective governance infrastructure for FDI flows, the home-country government's policies can influence the decisions of MNEs about where to invest. This effect is particularly noticeable for CMNEs (Gaur, Ma, & Ding, 2018; Luo & Tung, 2017). In particular, the home-country government's influence is evident in the internationalization of SOEs that the government owns and controls. Scholars suggest that direct ties to and dependence on their home government might prompt SOEs to take more risks when engaging in value-added activities across national borders, especially in host locations with weak governance institutions (Pan et al., 2014). For example, their willingness to invest in locations with poor governance is partly due to the non-market objectives of their home-country governments (Bass & Chakrabarty, 2014; Rudy et al., 2016).

We argue that the close integration of less concessional forms of aid with investments by CSOEs may make these firms less risk-averse when entering foreign locations. In other words, when Chinese OOF and loans are bundled with investments by CSOEs in African countries, these firms are less likely to be concerned about the quality of the institutions of governance. While CSOEs may prefer an environment governed by the rule of law and one that is politically stable, they attempt to balance economic motivations with their home country's long-term political interests (Alon, Wang, Shen, & Zhang, 2014).

2.2 | Development of hypotheses

Figure 1 illustrates our conceptual model. As the figure indicates, we maintain that CSOEs are less likely to be deterred by weak governance institutions when their investments are strategically integrated with less concessional aid flows such as Chinese OOF and loans. The conceptual model examines the overall impact of a country's quality of governance on FDI. First, the model explains SOEs' decisions about where to invest in developing economies. In these countries foreign aid plays a vital role in fostering economic development. It is also a tool that the donor country can use to promote good governance. Second, this focus complements the extant research on FDI flows into developing economies (Aleksynska & Havrylychuk, 2013; Cuervo-Cazurra & Genc, 2008; Karhunen & Ledyeva, 2012) by accounting for the role of foreign aid in the investment location decisions of SOEs. Third, the model explains the investment location behavior of EMMNEs that invest in other developing economies (South-South) with weak institutions of governance.

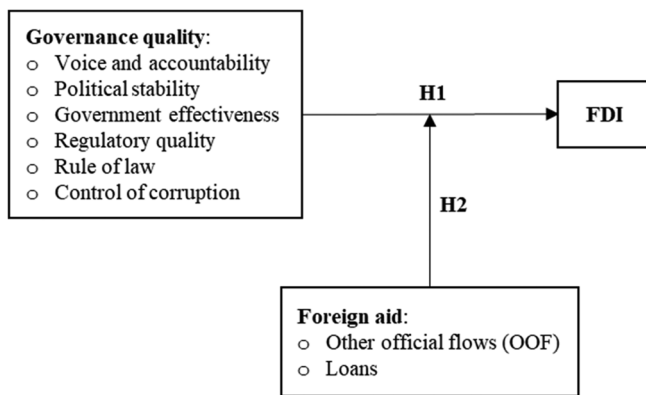


FIGURE 1 Conceptual model

2.2.1 | Host country governance and FDI by CSOEs

We also argue that, given that CSOEs enjoy special privileges from the government, they are less likely to be deterred by weak governance institutions for several reasons. First, as the owner of CSOEs, the Chinese government may invest in African countries for political and strategic motives, not strictly for profit (Cuervo-Cazurra et al., 2014). For example, large FDI projects have been carried out in African countries such as Sudan and Angola, with the world's worst governance records (Corkin, 2011b; Patey, 2017).

Second, the bargaining position of CSOEs may have been strengthened vis-à-vis African countries that either attract very little FDI from developed economies or have seen foreign investment decline due to extreme institutional conditions. For example, during the civil war in Sudan, Western MNEs were forced to pull out of Sudan's oil industry due to increased insecurity and human rights pressure—paving the way for the entry of the China National Petroleum Corporation (Patey, 2007).

Third, the soft-budget constraints of CSOEs and the existence of capital market imperfections in China (Buckley et al., 2007) mean that capital may be available to CSOEs at below-market rates (Song, Storesletten, & Zilibotti, 2011). The easier access to capital can help offset the higher transaction costs associated with FDI activities in African countries with governance deficiencies.

Fourth, certain advantages enjoyed by CSOEs might reduce the risks associated with internationalization. Their ties to the Chinese government mean they are most likely to benefit from official government visits (Quer, Rienda, Andreu, & Miao, 2019) and good home-host country diplomatic relations (Li, Meyer, Zhang, & Ding, 2018), especially in host countries with institutional voids (Zhang, Jiang, & Zhou, 2014). As of 2021, Swaziland was the only African country with no diplomatic relations with Beijing due to its recognition of Taiwan. Similarly, Burkina Faso was the most recent African country to break ties with Taipei and establish diplomatic relations with Beijing. China's strong diplomatic relations with most African countries may provide CSOEs with an opportunity to leverage such diplomatic networks when engaging in FDI in African countries.

Fifth, China's ideological stance, particularly concerning its respect for national sovereignty, may have led to Chinese OFDI in African countries with a similar ideology. Most African countries share China's national sovereignty ideology, first manifested during the first large-scale Afro-Asian conference held in Bandung in 1955 (Ampiah, 2007). The conference sought to inspire colonized countries to struggle for national liberation and promote anticolonial movements in Africa (Muekalia, 2004). China's open political support for African countries' sovereignty was backed up by large economic projects carried out with financial assistance from the Chinese government. The most well-known of such projects is the “Uhuru” or freedom railway built between Kapiri Mposhi, Zambia, and Dar-es-Salam, Tanzania (Monson, 2009). Overall, China's political ideology in the modern era may have led to FDI by CSOEs being preferentially directed to African countries with a similar political ideology regarding national sovereignty, the majority of which are also characterized by weak governance.

Finally, CSOEs may have an advantage in that they know how to operate in an emerging economy. Although ranked as the second-largest economy globally and widely regarded as an effective government, China's institutional indicators such as enforcement of the rule of law, control of corruption, and democratic accountability remain relatively weak compared with developed economies (Kaufmann et al., 2010). Consequently, operating in such an environment may have provided CSOEs with the skills that enable them to reduce the risks associated with operating in African countries with similar environments (Buckley et al., 2007). Research on the internationalization of African firms suggests that African MNEs, too, possess a unique ability to overcome “institutional voids” due to their experience in navigating among the weak institutions of governance in their home countries (Boso, Adeleye, Ibeh, & Chizema, 2019; Luiz, Stringfellow, & Jethas, 2017). Based on these arguments, we posit that:

Hypothesis H1. *There will be a negative relationship between the quality of the host country's governance and Chinese SOEs' FDI.*

2.2.2 | Host-country governance, foreign aid, and FDI by CSOEs

We also argue that CSOEs are less averse to weak governance institutions in African countries when their investments are tied to foreign aid, particularly less concessional forms of state aid. The use of Chinese foreign aid as a strategic instrument of foreign policy in Africa has intensified since the creation of the Forum on China Africa Cooperation (FOCAC) in 2000 (Taylor, 2010). Chinese foreign aid has facilitated the access and operations of CSOEs in Africa (Brautigam, 2011; Gu, Zhang, Vaz, & Mukwereza, 2016), allowing them to overcome their latecomer status on that continent vis-à-vis their Western counterparts. To this end, Chinese aid flows to African countries tend to be strategically integrated with investment projects carried out by large CSOEs closely affiliated with the Chinese state (Biggeri & Sanfilippo, 2009; Lu et al., 2017; Sanfilippo, 2010).

Due to the nature of China's political economy, we expect the direction of this relationship between Chinese foreign aid and FDI to go from foreign aid to FDI, not from FDI to foreign aid. In China, the government is not just another institution but a vital institution that creates national assets and a climate for business that impacts firms' international competitiveness (Peng, 2012; Ramamurti & Hillemann, 2018). Chinese government policies affect firms' internationalization strategies directly through its direct participation in key industries, which gives these companies advantages (Ramamurti & Hillemann, 2018). For example, the Chinese government has promoted the internationalization of CSOEs in Africa by negotiating government-to-government deals announced during FOCAC meetings. In most of these announcements, the Chinese government—representing the collective interests of CSOEs—offers a package with aid that is closely tied to investment projects (Li, Newenham-Kahindi, Shapiro, & Chen, 2013).

When providing aid to African countries, the Chinese government follows a policy of noninterference in the domestic affairs of sovereign states. Under this policy, decisions about allocating aid are made without consideration of the quality of the governance institutions of the recipient countries (Brautigam & Xiaoyang, 2011; Lew & Arvin, 2015; Tan-Mullins et al., 2010). Thus, Chinese aid in Africa is emblematic of an important foreign policy of the Chinese state—the noninterference in African countries' internal governance (Holslag, 2011). Consequently, Western observers claim that the Chinese approach to international development and its policy of noninterference props up rogue political regimes because it provides a convenient rationale for China to pursue its political and economic interests by providing aid to corrupt, undemocratic governments. Although empirical evidence supporting these claims is mixed (see, Bader, 2015; Bermeo, 2011; Dreher & Fuchs, 2015; Kersting & Kilby, 2014), it is plausible to argue that authoritarian donors such as China are less likely to promote improvements in the governance institutions of recipient (borrower) countries.

Research has shown that the donor country's interests, and the needs of the recipient country determine the allocation of aid (e.g., Alesina & Dollar, 2000; Hoeffler & Outram, 2011; McKinley & Little, 1979; Neumayer, 2003). Both economic and political interests drive Chinese aid allocations in Africa. However, the type of interest (political or economic) is contingent on whether the aid is in the form of ODA or less concessional formats such as OOF and loans. The political interests of Western donors have a significant influence on their foreign aid allocation decisions (Kuziemko & Werker, 2006; Vreeland & Dreher, 2012). Western countries tend to use foreign aid to build legitimacy in the eyes of the citizens of the recipient country, reward allies, and punish adversaries (Berman, Shapiro, & Felter, 2011). Theoretically, there are few reasons to believe that China should behave differently. Indeed, China has used its aid policy to secure diplomatic support in Africa, with more aid flowing to African countries with no diplomatic relations with Taiwan. Indeed, empirical research demonstrates that China uses aid to influence the voting behavior of recipient countries in various international bodies and secure diplomatic recognition at the expense of Taiwan (Dreher & Fuchs, 2015).

We maintain that the more concessional its foreign aid offer, the greater China's ability to advance its political interests by “buying” policy concessions from another country. In other words, the larger the grant element in any given aid commitment, the more “favors” the donor country can expect in return. For example, Dreher, Nunnenkamp, and Thiele (2008) report that support for the general budget and grants are the main aid categories with which recipients have been induced to vote in line with the United States in the UN General Assembly. Thus, we argue that Chinese ODA flows will generally be provided to achieve political goals. China does not have an independent foreign aid ministry. Other ministries in charge of Chinese foreign and security policy, such as the Ministry of Foreign Affairs and the Ministry of Commerce, are tasked with securing diplomatic recognition and putting together coalitions within international bodies. These ministries are also in charge of the allocation of ODA. Conversely, the role of the so-called policy banks in China such as the China Exim Bank and the China Development Bank is to generate financial returns on their loans and play a major role in the allocation of OOF (Brautigam, 2011).

Whereas we expect Chinese political interests to drive the allocation of its ODA, we maintain that less concessional forms of state aid are more closely tied to Chinese economic interests in Africa. There are several reasons for these relationships. First, the adoption of the “Go Global” strategy and the creation of the FOCAC were designed to help CSOEs do business in Africa and promote national exports (Brautigam, 2011). In recent years, the BRI represents a new stage in the “Go Global” strategy, with CSOEs playing a leading role (Quer & Andreu, 2021). Consequently, China has used less concessional state aid to help CSOEs gain a foothold in African markets and secure future contracts (Chen & Orr, 2009). Second, as the world's single largest exporter of capital, China is interested in investing its foreign exchange reserves in economically strategic sectors that will advance the long-term economic interests of the Chinese state. Consequently, the priority of two of the largest sources of OOF—the China Exim Bank and the China Development Bank—is on funding investment projects to achieve this goal (Brautigam, 2011; Corkin, 2011a). Third, China is interested in securing access to natural resources and energy resources in Africa that it currently lacks at home but needs to sustain its domestic economic growth.

Due to their close ties to the Chinese government through state-ownership, CSOEs are expected to have access to and win investment contracts. Tasked with the implementation of investment projects tied to their home country's economic interests, CSOEs are likely to be less risk-averse when carrying out investment projects in African countries closely integrated with Chinese OOF and loans. In line with China's principle of noninterference in the domestic affairs of African countries, we expect that OOF would be allocated independent of the level of quality of the institutions of governance in recipient African countries (Dreher, Fuchs, Parks, Strange, & Tierney, 2018).

To summarize, Chinese ODA is allocated to advance the political interests of China. Some have argued that Chinese OOF and loans are tied to the economic interests of China. Consequently, as agents of the Chinese government, we would expect CSOEs to carry out

investment projects directly or indirectly linked with Chinese OOF and loans to safeguard their home country's economic interests. Given this goal, they are less likely to pay attention to the quality of the institutions of governance in the host country. With these points in mind, we formulate our second hypothesis:

Hypothesis H2. *Chinese OOF and loans negatively moderate the relationship between the quality of the governance in the host country and Chinese SOEs' FDI.*

3 | RESEARCH DESIGN

To test these hypotheses, we analyze firm-level greenfield FDI data for CSOEs covering 11 years (2003–2014) and 21 African countries for which information was available. The greenfield FDI data came from the *Financial Times fDi Markets*. The independent variable is governance quality. The moderating variable is total aid. The dependent variable is FDI inflows. We also include several covariates to control for other factors that may affect MNE location decisions. Our dataset ends in 2014 because that was the point at which information about Chinese foreign aid ended. Using greenfield investments avoids the problems associated with FDI round tripping and destination bias found, for example, in MOFCOM data (Sutherland & Anderson, 2015). International business scholars have previously utilized such data to examine FDI location choices (e.g., Albino-Pimentel, Dussauge, & Shaver, 2018; Filippaios, Annan-Diab, Hermidas, & Theodoraki, 2019).

Prior research has also shown that various institutional factors in the host country can affect the choice of establishment modes of Chinese MNEs. For example, Quer, Rienda, and Andreu (2020) report that Chinese firms are more likely to enter Latin American markets through acquisitions when they have prior experience operating in the host country. Similarly, Alon, Elia, and Li (2020) suggest that Chinese MNEs are more likely to use M&As when there are more previous investments in the same host markets. Thus, although the focus of our article is on greenfield FDI, future research could examine the impact of Chinese foreign aid on the choice of establishment modes of CSOEs.

We constructed a firm-level cross-sectional dataset that we merged with data from five country-level datasets: the World Governance Indicators (WGI) (2020), World Development Indicators (WDI) (2020) from the World Bank, the Global Chinese Official Finance dataset from AIDDATA (2020), and the International Country Risk Guide (ICRG) of the Political Risk Services Group. We used the country-level dataset from the ICRG for robustness purposes. Initially, we considered 211 Chinese investment projects in 26 African economies between 2003 and 2014. Of these 211 projects, 130 investment projects were carried out by CSOEs. Due to missing data for some of the macroeconomic indicators, the final sample consist of 125 investments in 21 African countries. Table A2 provides information on host country FDI projects by CSOEs in the sample. Previous studies have used aggregate-level data (e.g., Biggeri & Sanfilippo, 2009; Drogendijk & Blomkvist, 2013; Kolstad & Wiig, 2011; Lu et al., 2017). In contrast,

we used firm-level data, allowing us to investigate the firm as the unit of analysis. Therefore, our results could complement the extant aggregate-level studies.

Identifying whether a company is state-owned or privately owned in China is a complicated task for several reasons. First, the level of ownership and control of today's SOEs, in general, varies a great deal, and is more nuanced than it was two and half decades ago (Bruton, Peng, Ahlstrom, Stan, & Xu, 2015). Second, the reform of CSOEs in the 1990s led to the reorganization of many of them into limited liability joint-stock companies, often termed “partial privatization” (Xu & Wang, 1999; Zhang, Zhang, & Zhao, 2001). Third, in China, control of the firm is determined by the type of shares held rather than the number of shares. For example, the government may own the types of shares that give it voting rights, and hence, veto power (Xu & Wang, 1999). For this study, we considered CSOEs to be those companies in which the central or local government or another SOE were the controlling stakeholders. This definition is in line with previous studies (e.g., Duanmu, 2012; Meyer, Ding, Li, & Zhang, 2014).

Table A3 in the Appendix provides the sectoral distribution of the projects in the sample. It shows that the sectors involved in extracting natural resources (coal, oil, natural gas, and metals) account for more than half the total capital expenditure for our sample FDI projects, with a combined capital expenditure of just over \$14.4 billion. This result is not surprising as the extant empirical and qualitative research shows that large CSOEs tend to invest more in such sectors (Amighini et al., 2013), particularly in Africa (Li et al., 2013).

3.1 | Dependent variable

The dependent variable, *FDI inflows* was measured using information from the *FDI Markets* database. We used the natural log of the capital invested in US dollars by CSOEs between 2003 and 2014. Given that we are interested in the FDI location decisions of CSOEs in Africa, our data are at the firm level, where each observation corresponds to an individual investment, making every observation unique.

3.2 | Independent variable

The independent variable is *the quality of governance*. Governance is multifaceted, and the overlap between the political and economic facets of governance makes measuring governance challenging (Acemoglu, Johnson, & Robinson, 2001). Therefore, problems arise when a single governance factor is used to measure such a broad aspect of a country (Wheeler & Mody, 1992). Research has shown that when deciding on whether to enter a foreign market, MNEs are more likely to take into consideration a combination of several governance factors of the host location, rather than a single factor, such as enforcement of the rule of law or control of corruption (Pajunen, 2008).

Thus, we created a composite measure of the quality of governance by taking the average of six governance indicators from the

WGI provided by the World Bank—voice and accountability, political stability/absence of violence, government effectiveness, regulatory quality, the rule of law, and control of corruption. The value of each variable ranged from -2.5 to 2.5 , with the latter value indicating the best quality of governance. We used the WGI rather than other institutional development measures such as the ICRG and the Economic Freedom Index (EFI) because the WGI provides data on the quality of the institutions of governance—the primary focus of this study.

3.3 | Moderating variables

China does not publish project-level information on its overseas aid activities and does not have an independent agency responsible for its foreign aid activities. Thus, for data on China's official finance to African countries, we relied on the Global Chinese Official Finance dataset (version 1.0) provided by AIDDATA introduced by Dreher, Fuchs, Parks, Strange, and Tierney (2017). Prior studies have utilized this dataset to better understand the scale and distribution of Chinese development aid funding in Africa (e.g., Parks & Strange, 2014; Strange, Cheng, Russell, Ghose, & Parks, 2017a; Strange, Dreher, Fuchs, Parks, & Tierney, 2017b), its impact on Chinese FDI in Africa (Lu et al., 2017), and whether Chinese aid practices fuel local corruption in Africa (Isaksson & Kotsadam, 2018). It includes 2,820 projects in 51 African countries from 2000 to 2014. In our analysis, we utilized a subsample of this dataset. We excluded projects for 2000–2002 because data for our dependent variable were available only from 2003. We excluded projects in multiple African countries. We also excluded projects that were co-financed because we focused on Chinese official finance only.

In line with the nature of our hypotheses, we disaggregated China's official finance into two categories—"ODA-like" flows and "OOF" flows. "ODA-like" flows consist of projects that cannot be measured using the strict OECD definition of what constitutes ODA because information about the development intent and the concessional nature of Chinese ODA is usually incomplete (Brautigam, 2011). Thus, AIDDATA relies on a second-best definition of Chinese "ODA-like" flows, which consist of grants, scholarships and technical assistance, debt relief, and loans with significant grant elements on the condition that the intent of these projects is developmental in nature (Dreher et al., 2018). Flows categorized as "OOF" include export credits and loans that are not primarily focused on development in the recipient country and have a grant element of less than 25%. The intent of projects in the OOF category is primarily commercial.

Furthermore, we also disaggregated China's official finance by flow type, including only loans in the analysis.⁴ We excluded projects from 2000 to 2002 from the analysis, projects in multiple African countries, and projects that were co-financed because data for the FDI variable start in 2003. From the remaining 2,490 projects, we extracted the aggregate financial values of the full range of China's official finance commitments to recipient countries (i.e., all available host countries in the FDI dataset) each year. We aggregated the

financial values of the ODA-like and OOF aid and loans to recipient countries each year.

The first moderating variable was *total aid*, which we measured by aggregating the financial value of all aid projects committed to the recipient country each year (in constant 2014 US dollars)⁵ and operationalized as a percentage of GDP (Lim, Mosley, & Prakash, 2015). We then compared the distinctive effects of ODA-like and OOF flows, and loans. Thus, the second moderating variable is *ODA-like flows*, measured by the aggregate financial value of all Chinese ODA projects committed to a recipient country each year (in constant 2014 US dollars) and operationalized as a percentage of GDP. The third moderating variable is *OOF*, measured by the aggregate financial value of all other official flows committed to the recipient country each year (in constant 2014 US dollars) and operationalized as a percentage of GDP. The final moderating variable is *loans*, measured by the aggregate financial value of all loans committed to a recipient country each year (in constant 2014 US dollars) and operationalized as a percentage of the recipient country's GDP.

3.4 | Control variables

In accordance with the extant literature, we controlled for several host-country factors that could potentially affect a firm's FDI location choices. First, we controlled for the host country's market size by including *GDP (log)* and *GDP per capita growth* to capture the host market's characteristics (Kolstad & Wiig, 2011). *GDP (log)* was measured as the natural log of the host country's annual gross domestic product (in constant 2010 US dollars), and *GDP per capita* was measured by the annual percentage growth in GDP of the host country. Data on both variables came from the World Bank's World Development Indicators (WDI). We expect a positive relationship between Chinese OFDI and GDP and GDP per capita growth, respectively.

China's recent rapid growth in the past two decades necessitates a constant supply of raw materials and other commodities to sustain it (Ramamamy, Yeung, & Laforet, 2012). Through its "Go Global" policy, the Chinese government has intentionally used FDI to safeguard the supply of domestically scarce physical resources (Jiang, 2009). Thus, we included *oil rents*, measured by the host country's rents from oil as a percentage of GDP, and *mineral rents*, measured by the host country's rents from minerals as a percentage of GDP. Data on both variables came from the WDI. We expect a positive relationship between Chinese OFDI and both variables.

Previous research suggests that high host-country inflation rates have a negative impact on Chinese FDI (Zhang & Daly, 2011). Thus, we included *inflation*, measured by the host country's annual percentage growth in consumer prices. Data on inflation came from the WDI. We expect a negative relationship between Chinese OFDI and host-country inflation rates.

The presence of a high-quality physical infrastructure can impact the FDI location decisions of MNEs (Wheeler & Mody, 1992). Thus, we captured the impact of the physical infrastructure by including *mobile cellular subscriptions*, measured by the number of a country's

mobile cellular subscriptions per 100 people (Kolstad & Wiig, 2013). In addition, as Table A3 shows, the communications sector is among the sectors with the largest number of investment projects in our sample. We expect a positive relationship between Chinese OFDI and mobile cellular subscriptions.

The effect of exchange rates on FDI has been widely studied (e.g., Blonigen, 1997; Gastanaga, Nugent, & Pashamova, 1998; Stevens, 1998). An appreciating host currency (or depreciating home currency) reduces the wealth positions of potential investors and will discourage them from investing in countries where the currency of their home country depreciates. Thus, the impact of the foreign exchange rate is captured by including the *real effective exchange rate*, measured by the annual value of the host country's currency against a weighted average of a basket of major currencies. Data on this variable came from the WDI. We expected a negative relationship between Chinese OFDI and real effective exchange rates.

Previous studies suggest that firms seek to invest in countries where many companies from their home country are already operating (Disdier & Mayer, 2004). We captured any potential agglomeration effects of FDI by including *foreign direct investment*, measured as the net foreign direct investment flows into a country as a percentage of GDP. We considered only Chinese investments, not investments made by foreign firms. Data on this variable came from the WDI. We expected a positive relationship between Chinese OFDI and foreign direct investment. Table 1 provides a description of the variables, measures, and sources of data.

3.5 | Estimation specification

We estimated the moderating effect of Chinese foreign aid on the effect of the quality of the host country's governance on FDI by CSOEs using the following regression equation:

$$LFDI_{ikt} = \alpha_{kt} + \beta_1 \text{governancequality}_{kt} + \beta_2 \text{aid}_{kt} + \beta_3 \text{governancequality}_{kt} \times \text{aid}_{kt} + \beta_4 \text{control}_{kt} + \tau_t + \varepsilon_{kt} \quad (1)$$

Here $LFDI_{ikt}$ measures Chinese investments by firm i to host country k in year t ; $\text{governancequality}_{kt}$ captures the quality of the governance in host country k in year t ; aid_{kt} measures Chinese aid to recipient country k in year t ; $\text{governancequality}_{kt} \times \text{aid}_{kt}$ captures our main variable of interest and stands for the interaction between the quality of governance and Chinese aid; and control_{kt} denotes the set of eight control variables; τ_t controls for year fixed-effects; and ε_{kt} is a stochastic error term.

We ran pooled OLS regressions with the pooled cross-sectional data of 21 African countries for 2003–2014. We chose this method rather than a panel model because each observation corresponds to an individual investment, making every observation unique. To estimate the moderating effect of Chinese aid on host–country governance, we created an interaction term of the quality of governance and aid. We analyze the variables using linear regression models with

year fixed effects. Linear regressions are carried out in STATA using the “reg” command. This method allows for the inclusion of a moderating variable in the proposed cause-and-effect relationship between our independent and dependent variables (Cameron & Trivedi, 2010). The moderating variable in this analysis shapes the strength of the relationship between the dependent and independent variables. Thus, we examined interactions whereby the effect of a change in our key independent variable on the dependent variable is contingent on the level of the moderating variable (Brambor, Clark, & Golder, 2005; Jaccard, Wan, & Turrissi, 1990).

The OLS estimation makes three important assumptions about the error term Cameron & Trivedi (2010, p. 83)—the residuals are approximately normally distributed, the residuals have a constant variance (homoscedastic), and the independent variables are not correlated (multicollinearity). To ensure a normal distribution, we performed a log-transformation of the dependent variable. To ensure that the variance in the regression models is constant—correcting for heteroscedasticity, we estimated all the regressions using Huber–White's robust standard error (White, 1980). We do this by including the “robust” command when carrying out each regression model in STATA. We ensure there are no multicollinearity problems by carrying out a test for tolerance by carrying out a variance inflation factor test (VIF) for all regression models which we report.

There is also likely to be a high degree of multicollinearity in the moderation analysis, considering that the independent variable, the moderating variable, and the interaction term are included in the same regression model. To solve this problem, we followed previous studies (Asiedu & Lien, 2011; Jandhyala, 2015; Wu & Chen, 2014) and calculated the standardized values of the independent and moderating variables. Next, we generated the interaction term by multiplying the standardized values of the independent and moderating variables (Aiken, West, & Reno, 1991).

Whether the coefficient β_3 in Equation (1) is statistically significant or not, scholars believe that researchers also need to perform a conditional test that examines the average marginal effects of the independent variable (\times) across the entire range of the moderating variable (z) (Brambor et al., 2005; Brambor, Clark, & Golder, 2007). Such an approach ensures that the potential of overstating the moderating effect when the interaction term is statistically significant and understating it when it is statistically insignificant is avoided (Kingsley, Noordewier, & Bergh, 2017). We followed this approach by examining the average marginal effects of our independent variable of interest—the quality of governance—over the entire range of our moderating variables.

4 | RESULTS

Table 2 provides the descriptive statistics for all our variables used in the sample. The average size of the investments by the CSOEs in our sample is around US\$3.6 million. The average overall GDP per capita growth for the host economies under investigation is approximately 2.9% per year. The economies under investigation are also rich in oil

TABLE 1 Variables, measures, sources, and level of analysis

	Variable	Measure	Source	Level of analysis
Dependent variable	FDI inflows (log)	The natural log of capital invested from the home country to the host country at current US dollars.	fDi Markets	Firm-host country-year
Independent variable	The quality of governance	The simple average of six governance indicators: rule of law, control of corruption, political stability, government effectiveness, regulatory quality, voice, and accountability.	WGI, 2020	Host country-year
Moderating variables	Total aid	The percentage of total official finance from China to host country GDP at 2014 US dollars.	AIDDATA, 2020	Host country-year
	ODA-like flows	The percentage of total official finance from China to host country GDP at 2014 US dollars.	AIDDATA, 2020	Host country-year
	OOF	The percentage of Chinese other official flows to host country GDP at 2014 US dollars.	AIDDATA, 2020	Host country-year
	Loans	The percentage of Chinese loans to host country GDP at 2014 US dollars.	AIDDATA, 2020	Host country-year
Control variables	GDP (log)	The natural log of annual gross domestic product at 2010 US dollars.	WDI, 2020	Host country-year
	GDP per capita growth	The annual percentage growth in GDP per capita.	WDI, 2020	Host country-year
	Oil rents	Host-country's annual rents from oil as a percentage of GDP.	WDI, 2020	Host country-year
	Mineral rents	Host-country's annual rents from minerals as percentage of GDP.	WDI, 2020	Host country-year
	Inflation	The annual percentage growth in consumer price index.	WDI, 2020	Host country-year
	Mobile cellular subscriptions	The number of mobile cellular subscriptions.	WDI, 2020	Host country-year
	Real effective exchange rate	The annual value of the host country's currency against a weighted average of a basket of major currencies.	WDI, 2020	Host country-year
	Foreign direct investment	Net inflows of FDI as a percentage of host-country GDP.	WDI, 2020	Host country-year

TABLE 2 Descriptive statistics

Variables	Observations	Mean	SD	Min	Max
FDI inflows (log)	125	3.669	1.812	0.405	8.170
The quality of governance	125	-0.502	0.525	-1.609	0.410
Total aid	96	1.941	2.703	0.000	13.428
ODA-like flows	79	0.639	1.244	0.000	6.513
OOF	64	2.159	2.429	0.020	9.079
Loans	76	2.357	2.811	0.003	13.304
GDP (log)	125	25.104	1.285	22.170	26.838
GDP per capita growth	125	2.879	3.691	-17.189	11.829
Oil rents	125	7.450	12.349	0	56.139
Mineral rents	125	2.749	4.704	0	19.174
Inflation	125	14.794	39.132	-1.614	432.700
Mobile cellular subscriptions	125	63.747	45.535	0.672	171.375
Real effective exchange rate	125	101.728	41.815	0	220.4
Foreign direct investment	125	2.351	3.056	-5.978	12.052

resources, with average oil rents for the countries in the sample accounting for 7.5% of GDP. However, the high standard deviation of 12.3 suggests a significant disparity in oil resources among African countries, which tend to be concentrated in countries such as

Nigeria and Angola. The descriptive statistics also show that most of our sample countries have a low quality of governance, scoring an average of -0.502. The average for total Chinese aid to the African countries in the sample, including ODA-like flows, OOF,

loans, and grants, is 1.9% of GDP. The average Chinese aid for the African countries in the sample is highest for OOF and loans, with an average of 2.1 and 2.3% of GDP, respectively. ODA-like flows account for the smallest number of flows, with an average of 0.6% of GDP.

Table 3 presents the correlation matrix for the variables used in the sample. Although the correlation between most of our variables are low, we do however observe a strong correlation between our moderating variables in the two different aid categories, that is, the “flow-class” category (ODA-like flows and OOF) and the “flow-type” category (loans). These correlations do not pose any problems in our analysis because we examined each moderating variable in separate regression models. In addition, the results of the VIF test in Table 4 reveal that the maximum VIF value is 5.5, below the acceptable benchmark of 10 (Doane & Seward, 2005, p. 571). Thus, multicollinearity is not a problem in our analyses.

Table 4 reports the main results of our study. Model 1 examined the effect of governance quality on FDI by CSOEs. Model 2 examined the moderating effect of all forms of aid, while Model 3 tested the moderating effect of ODA-like flows. Models 4 and 5 tested the moderating effect of Chinese OOF and loans, respectively.

In Model 1, we tested the effect of the quality of governance on FDI by CSOEs. The results show that the quality of governance is negative and statistically significant ($b = -1.243$, $SE = 0.571$, $p < .05$). This result provides support for Hypothesis 1, predicting a negative relationship between the quality of the host country's governance and CSOE investments. In Model 2, we used Equation (1), including total aid and the interaction term between the quality of governance and total aid (*the quality of governance* \times *total aid*). The results show that the quality of governance is negative and statistically significant ($b = -0.725$, $SE = 0.409$, $p < .1$). *Total aid* is negative but not statistically significant. The coefficient of the interaction term *the quality of governance* \times *total aid* is negative and statistically significant ($b = -0.662$, $SE = 0.383$, $p < .1$). This result implies that higher levels of total Chinese aid inflows strengthen the negative impact of the quality of governance on FDI by CSOEs.

In Model 3, we tested the moderating effect of Chinese ODA-like flows on the impact of host country governance on FDI by CSOEs. The quality of governance is negative but not significant. *ODA-like flows* is positive but not significant. The coefficient for the interaction term *the quality of governance* \times *ODA-like flows* is positive but not statistically significant.

Model 4 tested the moderating effect of OOF. The results show that *the quality of governance* is negative and statistically significant ($b = -0.887$, $SE = 0.487$, $p < .1$). Chinese OOF is negative and significant ($b = -0.759$, $SE = 0.440$, $p < .1$), while the interaction term *the quality of governance* \times *OOF* is negative and statistically significant ($b = -0.861$, $SE = 0.439$, $p < .1$). This result suggests that CSOEs are more attracted to African countries with a weak governance infrastructure when Chinese OOF is entangled with their investment projects.

In Model 5, we tested the moderating effect of Chinese loans specifically. The results show that the quality of governance is

TABLE 3 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) FDI inflows (log)	1.000													
(2) The quality of governance	-0.077	1.000												
(3) Total aid	-0.086	0.097	1.000											
(4) ODA-like flows	-0.015	-0.006	0.649	1.000										
(5) OOF	-0.123	0.147	0.944	0.410	1.000									
(6) Loans	-0.079	0.091	0.999	0.643	0.945	1.000								
(7) GDP (log)	0.019	-0.364	-0.477	-0.209	-0.476	-0.465	1.000							
(8) GDP per capita growth	-0.062	-0.128	0.433	0.133	0.437	0.444	-0.133	1.000						
(9) Oil rents	0.163	-0.460	-0.140	-0.308	-0.039	-0.124	0.293	0.386	1.000					
(10) Mineral rents	0.155	0.571	0.113	-0.050	0.156	0.114	-0.511	-0.115	-0.322	1.000				
(11) Inflation	-0.232	-0.203	0.154	0.284	0.085	0.137	-0.168	0.300	0.071	-0.276	1.000			
(12) Mobile cellular subscriptions	-0.158	0.333	-0.358	-0.160	-0.308	-0.365	0.367	-0.421	-0.237	0.030	-0.060	1.000		
(13) Real effective exchange rate	-0.135	-0.055	-0.067	0.073	-0.064	-0.082	-0.437	-0.190	0.120	0.042	0.338	0.170	1.000	
(14) Foreign direct investment	0.256	0.520	-0.007	-0.034	-0.001	-0.004	-0.127	-0.168	-0.605	0.434	-0.339	0.067	-0.446	1.000

TABLE 4 Results: The effect of the quality of governance and moderating effects of aid

	[1]	[2] Total aid	[3]	[4] ODA-like flows	[5] OOF	[6] Loans
<i>Variables</i>	Dependent variable: Ln (FDI inflows)					
The quality of governance	-1.243** (0.571)	-1.160* (0.674)	-0.725* (0.409)	-0.650 (0.798)	-0.887* (0.487)	-0.821 (0.519)
Total aid		-0.112 (0.087)	-0.413 (0.365)			
The quality of governance × total aid			-0.662* (0.383)			
ODA-like flows				0.561 (0.796)		
The quality of governance × ODA-like flows				0.115 (1.245)		
OOF					-0.759* (0.440)	
The quality of governance × OOF					-0.861* (0.439)	
Loans						-0.698* (0.399)
The quality of governance × loans						-1.290*** (0.429)
GDP (log)	-0.603 (0.414)	-0.567 (0.529)	-0.216 (0.287)	-0.368 (0.397)	-0.960* (0.489)	-0.276 (0.374)
GDP per capita growth	-0.024 (0.063)	-0.009 (0.078)	-0.065 (0.072)	-0.111* (0.067)	-0.093 (0.114)	-0.061 (0.092)
Oil rents	0.024 (0.020)	0.029 (0.026)	0.033 (0.027)	0.054** (0.026)	0.055 (0.047)	0.058* (0.034)
Mineral rents	0.048 (0.039)	0.045 (0.039)	0.095** (0.047)	0.086 (0.061)	-0.041 (0.063)	0.073 (0.050)
Inflation	-0.033* (0.019)	-0.033 (0.020)	-0.008* (0.005)	-0.013 (0.011)	-0.035 (0.030)	-0.007 (0.006)
Mobile cellular subscriptions	-0.005 (0.006)	-0.003 (0.008)	0.002 (0.014)	0.000 (0.017)	0.011 (0.015)	0.005 (0.017)
Real effective exchange rate	-0.001 (0.005)	-0.002 (0.005)	-0.007 (0.006)	-0.008 (0.008)	-0.017* (0.009)	-0.004 (0.007)
Foreign direct investment	0.170** (0.071)	0.150* (0.081)	0.090 (0.107)	0.052 (0.127)	0.182 (0.133)	0.245* (0.125)
Constant	17.466* (9.808)	17.016 (12.307)	11.118 (7.377)	15.424 (10.138)	26.545** (12.625)	13.193 (9.802)
Observations	125	96	96	79	64	76
R ²	0.184	0.212	0.325	0.394	0.418	0.408
VIF	1.96	2.07	3.61	5.18	5.03	5.50
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Note: Heteroscedasticity robust standard errors are in parentheses *, **, and *** denote significance at the 10%, 5%, and 1% confidence levels, respectively.

Abbreviations: ODA, official development assistance; OOF, other official flows.

negative but not statistically significant. In contrast, loans is negative and statistically significant ($b = -0.698$, $SE = 0.399$, $p < .1$). The coefficient of the interaction term *the quality of governance* × *loans* is negative and statistically significant ($b = -1.290$, $SE = 0.429$, $p < .01$). This result indicates that Chinese loans strengthen the negative effect of the quality of governance on FDI by CSOEs in Africa. It suggests that CSOEs are more attracted to African countries with weak governance frameworks when Chinese loans are entangled in their investment projects.

The results in Models 3, 4, and 5 provide support for Hypothesis 2, predicting that Chinese OOF and loans would negatively moderate the relationship between the quality of the host country's governance and Chinese SOEs' investments.

Next, we report the results of including the control variables in the various models. We begin with the results of the market-seeking variables, followed by the results of the resource-seeking variables. Finally, we present the results of the traditional macroeconomic factors that impact MNEs' location choices.

Contrary to expectations, *GDP (log)* and *GDP per capita growth* are consistently negative, with *GDP (log)* significant in Model 4 and

GDP per capita growth showing significance in Model 3. One potential explanation for this result could be that CSOEs tend to invest more in natural resource sectors (Amighini et al., 2013).

As expected, the coefficient of *oil rents* is consistently positive across all models. Furthermore, it is significant in Models 4 and 6, indicating a resource-seeking motive for CSOEs' investments in African countries. This result is in line with previous studies (e.g., Biggeri & Sanfilippo, 2009; Drogendijk & Blomkvist, 2013) reporting that the goal of Chinese FDI in Africa is obtaining resources. On the other hand, *mineral rents* is positive and significant in Model 3.

Regarding traditional macroeconomic variables, *foreign direct investment* is consistently positive, as expected, and significant in Models 1, 2, and 6. This result indicates an agglomeration effect of CSOEs' investments in Africa, whereby African countries that have already attracted a significant amount of FDI from CSOEs tend to attract more FDI from China. MNEs tend to agglomerate their foreign investments in particular countries to benefit from network externalities and co-locate with firms of the same nationality (Chang & Park, 2005). Country-of-origin agglomeration provides an effective

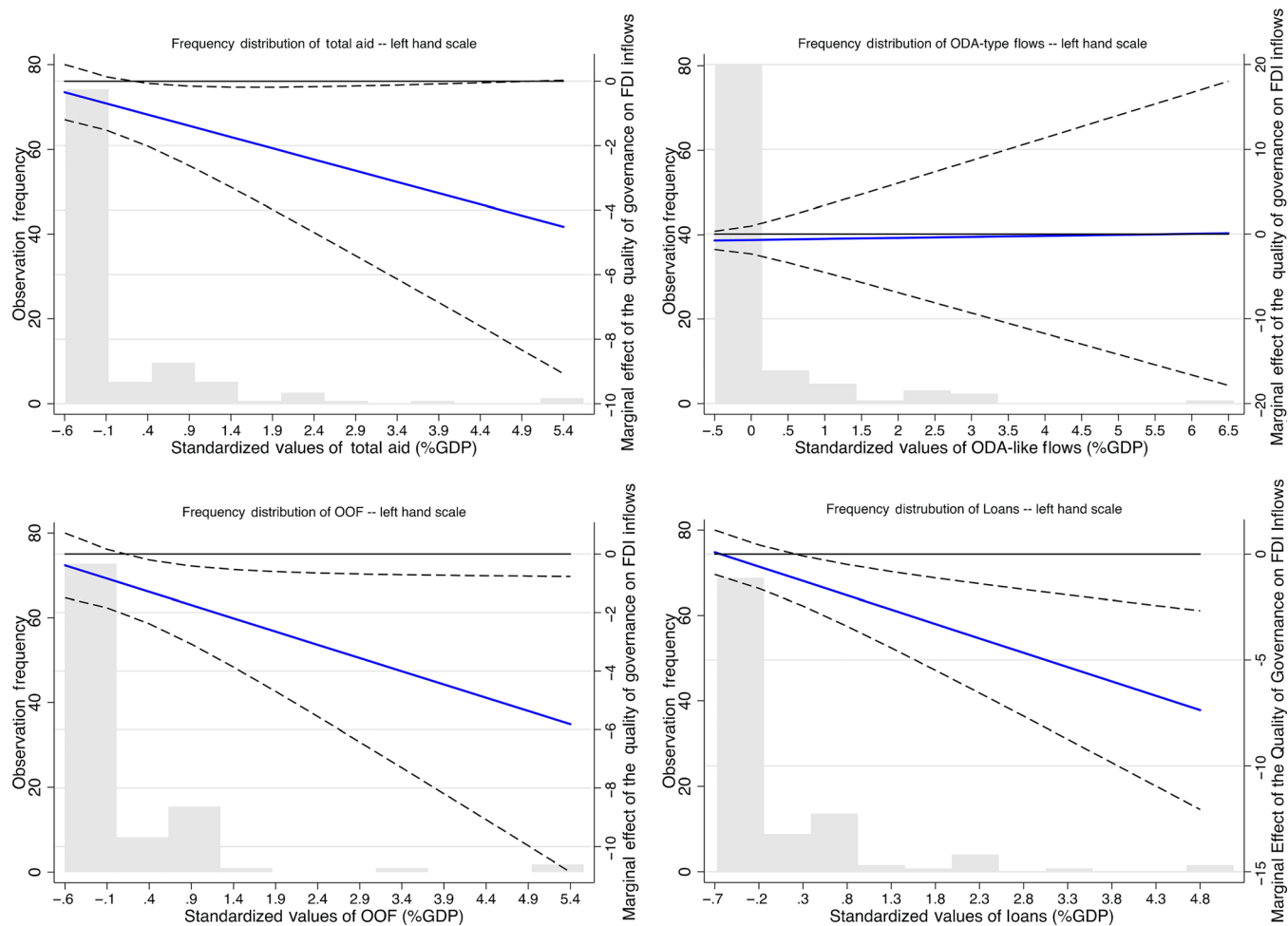


FIGURE 2 Marginal effect of the quality of governance on FDI (with 95% confidence intervals). (a) Total Aid based upon *Model 3* in Table 4. (b) ODA-like flows based upon *Model 4* in Table 4. (c) OOF based upon *Model 5* in Table 4. (d) Loans based upon *Model 6* in Table 4 [Color figure can be viewed at wileyonlinelibrary.com]

channel for sharing important and tacit knowledge about the host country's business environment (Tan & Meyer, 2011).

Mobile cellular subscriptions is not significant in any of the models. As expected, *inflation* is consistently negative and significant in Models 1 and 3, indicating that African countries' macroeconomic stability seems to deter FDI by CSOEs. *Real effective exchange rate* is consistently negative as expected and is significant in Model 5.

Next, we calculated the average marginal effects (AMEs) of the quality of governance across the moderating variables' range. Figure 2a–d present the average marginal effects plots of the quality of governance on FDI over the range of the moderating variables' standardized values. The dashed exterior lines show 95% confidence intervals. The horizontal line illustrates the moderating variable's values at which the marginal effects of the quality of governance are significantly different from zero.

Looking at Figure 2a, we can see that the quality of governance has a statistically significant negative effect on FDI over part of the *total aid* sample values (from 0.4 to 4.4). Given that the confidence interval bands cross 0 for higher levels of aid, we conclude that the

quality of the governance's marginal effects is significantly different from zero (at the 95% confidence level). This result provides evidence of the moderating effect of *total aid* on the quality of governance. In contrast, Figure 2b shows that the confidence intervals bands do not cross 0 for all values of *ODA-like flows*, confirming the lack of evidence of a moderating effect of ODA-like flows.

Figure 2c illustrates that the quality of governance has a statistically significant negative effect on FDI by CSOEs at higher values of OOF (0.4–5.4), confirming the moderating effect of Chinese OOF. Finally, Figure 2d indicates that the quality of governance has a negative and statistically significant effect on FDI at higher values of *loans* (0.3–4.8), providing evidence of the moderating effect of loans on the relationship between host-country governance and CSOEs' FDI.

4.1 | Robustness and alternative specifications

We conducted additional tests using alternative methodologies and measures of the quality of governance.

4.1.1 | Alternative measure of institutions of governance

We conducted additional analyses of the moderating effect of Chinese aid using data from the ICRG database as an alternative measure of the quality of governance. We constructed a measure of the quality of governance using the average of 12 risk indicators—including government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and bureaucracy quality. Each indicator is graded on a scale of 0–100, with the latter value representing the least politically risky environment. We called this variable *political risk*. Table A4 lists the results of this test, indicating the moderating effect of aid on the impact of political risk on CSOEs' investment projects. In Model 1, the results show that political risk is negative and insignificant. Model 2 tested the moderating effect of total aid. The coefficient of the interaction term *political risk* × *total aid* is negative and statistically significant ($b = -0.596$, $SE = 0.346$, $p < .1$). In Model 3, the results also show a negative and statistically insignificant moderating effect of ODA-like flows. In Model 4, the coefficient of the interaction term *political risk* × *OOF* is negative and statistically significant ($b = -1.028$, $SE = 0.362$, $p < .01$). In Model 5, the coefficient of the interaction term *political risk* × *loans* is negative and statistically significant ($b = -1.028$, $SE = 0.362$, $p < .01$). These results are in line with our main findings.

4.1.2 | Addressing the potential endogeneity of governance institutions and aid

A common problem in empirical analyses is the potential endogeneity of right-hand side variables. If the quality of governance and aid are correlated with the error term in Equation (1), these variables are considered endogenous. The causality observed may be from the effect of FDI on the quality of governance and aid, leading to reverse causality.

To address the potential problem of endogeneity, we used an alternative methodology—the panel fixed effects estimator. Table A5 provides the results of the panel fixed effects estimations. The results show that the quality of governance is a negative and significant estimator of CSOEs' investments ($b = -5.949$, $SE = 1.836$, $p < .01$). This result is different from our main results in Table 4 indicating a negative but statistically insignificant effect of the quality of governance. One reason for this difference might stem from that fact that to use the panel fixed effects estimator, we had to aggregate the FDI variable, creating a panel dataset that contains all yearly investments in each available host country. The results of the moderating effect of our aid variables remain consistent with the main results. In Model 2, the coefficient of the interaction term the quality of governance × *total aid* is negative and statistically significant effect ($b = -0.741$, $SE = 0.390$, $p < .1$). In Model 3, the interaction term the quality of governance × *ODA-like flows* is positive and insignificant. In contrast, the interaction term the quality of governance × *OOF* is negative and statistically significant in Model 4 ($b = -1.960$, $SE = 0.649$, $p < .05$). In Model

5, the interaction term the quality of governance × *loans* is negative and statistically significant 4 ($b = -1.172$, $SE = 0.620$, $p < .1$).

5 | DISCUSSION

Despite the increasing interest in the FDI activities of Chinese MNEs in the continent of Africa, our understanding of the role of the Chinese state remains limited. Due to the nature of the political economy of CSOE outward investments, we hypothesize that the quality of the governance of the host country negatively impacts investments by CSOEs in African countries because CSOEs invest with strategic intent and noneconomic motives. Our findings show a negative and statistically significant effect of the quality of the governance of the host country on CSOEs' investments in Africa.

This result may be due to several reasons. First, the institutional environment in China might explain this result. The Chinese government has a strong tradition of influencing CSOEs and encouraging OFDI (Child & Rodrigues, 2005; Voss, Buckley, & Cross, 2010). Buckley et al. (2007) and Morck, Yeung, and Zhao (2008) suggest that Chinese firms' encouragement to engage in OFDI is usually through privileged access to capital on favorable terms due to local capital market distortions. Favorable treatment and access to cheap capital can encourage CSOEs to invest abroad because these factors can reduce the financial risk associated with OFDI activities in countries with a weak governance infrastructure.

Second, CSOEs often invest in African countries plagued by the “natural resource curse” (De Rosa & Iooty, 2012), meaning they have numerous natural resources and weak governments (Kolstad & Wiig, 2011). The flow of rents from the exports of natural resources may help create a rentier government with little impetus to improve its governance institutions. The rents from natural resources may also enable government institutions to militarize, giving rise to autocratic states. Thus, CSOEs can invest in these industries in African countries with weak governments led by political leaders unable to cope with the natural resource curse.

We find statistically significant evidence supporting our first hypothesis and this is in line with other studies suggesting a negative relationship between institutional risk levels in the host country and FDI by CSOEs (e.g., Duanmu, 2012; Pan et al., 2014; Ramasamy et al., 2012; Wang et al., 2012). Previous Africa-specific research has shown that weak institutional environments do not deter Chinese MNEs from operating in such countries. As a result, investments by large CSOEs supported by the Chinese state, particularly in natural resource sectors such as mining, risk undermining the effectiveness of the regulatory environment in African countries (Haglund, 2008). Research on Chinese decisions about where to send FDI in East and Southeast Asia show that Chinese MNEs tend to invest in very risky locations (Kang & Jiang, 2012). Similarly, Tuman and Shiralı (2017) report that CSOEs considering investing in African and Latin American countries pay little attention to the quality of the host country's institutions. Instead, they are attracted to host countries with no diplomatic ties with Taiwan.

We argued that Chinese ODA flows are generally allocated to advance the Chinese state's political interests. Thus, they are less likely to be closely tied with CSOE investment projects in Africa. On the other hand, we proposed and found empirical support that less concessional flows of state aid such as Chinese OOF and loans, but not its ODA, negatively moderate the quality of the host country's governance. Less concessional types of state aid such as OOF and loans are more closely linked to the Chinese state's economic interests. Thus, it is these forms that are more likely to be closely tied with the investment projects carried out by CSOEs. Given that CSOE investments are closely linked with less concessional flows and are explicitly designed to promote their home-country's economic interests, they are less likely to be deterred by the quality of the governance in the host country.

5.1 | Theoretical implications

Our study contributes to the institution-based view (Khoury & Peng, 2011; Peng, 2002; Peng, Wang, & Jiang, 2008), particularly the new institutional economics approach to international business. This approach posits a theory about how the impact of the quality of the governance of the host country depends on the foreign aid policy of the home country's government.

We argue that CSOEs are less risk-averse to the quality of governance institutions in the host country when their investments are closely tied to Chinese foreign aid. Our findings indicate that this moderating effect of foreign aid on the relationship between the host country's governance and FDI is negative when considering the total package of Chinese foreign aid. We maintain that to understand the whole picture, we must distinguish between the impact of less concessional forms of foreign aid such as Chinese OOF and loans, and more concessional forms such as Chinese ODA.

Our study also enhances our theoretical understanding of the effect of governance institutions on FDI in several ways. First, we extend the fundamental logic underlying the institution-based view and the transaction costs element of the new institutional economics approach to international business. According to this logic, the quality of the institutions of governance determines the transactions costs incurred by MNEs, which in turn, determine their FDI location choices. However, the negative relationship between the host country's governance and CSOEs' investment we documented contradicts logic. We argue that this strictly economic approach to the analysis of firms' internationalization processes based solely on transaction cost analysis is less relevant in the case of CSOEs' investments. We must also account for the geo-economic and geo-political interests of the home government of the MNE rather than assuming that making a profit is the sole reason why firms engage in FDI.

Finally, we provide insights into how the effect of the quality of the host country's governance on the FDI location choices of MNEs depends on the foreign aid policy of their home government. We also indicate that the effect of the quality of the host country's governance

on FDI location choices depends on foreign aid, particularly less concessional aid.

5.2 | Limitations and future research directions

This study has some limitations that can suggest directions for future research. First, we used greenfield investments in Africa, which account for the more significant share of FDI inflows into the region and are growing (UNCTAD, 2019). However, the determinants of the FDI location choices and the moderating effect of Chinese development aid might be different for other investment entry modes such as joint ventures and mergers and acquisitions. Thus, further research can utilize datasets covering these forms of Chinese entry into African countries. Also, data availability is a problem for scholars studying Africa and made it difficult to control for more relevant factors. For example, we would have liked to control for the effect of cultural distance, but data is currently lacking for most African countries in our sample.

Second, additional research on the direct and indirect effects of foreign aid on international investment is warranted, going beyond China. For example, will we see the same effect of foreign aid on Indian firms or other emerging multinationals? Will government entities be different from private ones? These research ideas will also help integrate the international business field with that of political economy and show how MNEs in developed nations differ from those in emerging economies.

Third, the limited data on Chinese foreign aid meant that we could not carry out our analysis with a larger sample of CSOE investments because information on Chinese aid projects was available only until 2014. Future research should try to validate our findings in a larger sample of CSOE investments in more African countries using data beyond 2014. Furthermore, we encourage future research to investigate whether Chinese aid's moderating effect on the relationship between the quality of the host country's governance and CSOE investments is stronger for African countries due to national specificity.

Finally, although this article covers key sectors for Chinese FDI in Africa, it is possible that the moderating effect of Chinese foreign aid on CSOEs' investments is industry specific. We did not examine investments in specific industries, but future studies should do so. Finally, we believe that continued research is needed to disentangle further what constitutes Chinese aid and FDI.

6 | POLICY IMPLICATIONS

Our findings have important policy implications, particularly because of the increasing economic ties between China and the African continent. Unlike investors from developed economies who seek environments with strong governance institutions, the willingness of CSOEs to take risks when investing in Africa implies that Chinese OFDI in Africa can be detrimental to the long-term development of good

governance in African countries. The latter would have few incentives to improve the quality of their governance institutions if China continued to pour money into them regardless of the quality of their governance. Links to China may shield despots from making necessary changes and entrench these leaders further in autocratic regimes. Such an outcome may also exacerbate the natural resource curse in African countries. If good governance is a prerequisite for sustainable economic development, CSOEs may not provide appropriate improvement incentives. Indeed, Fon et al. (2021) showed that CSOEs' FDI activities in African countries could undermine the ability of host governments to control corruption.

Our finding regarding the relationship between the quality of governance and FDI by CSOEs does not mean that policymakers in African countries should pay less attention to the improvement of the quality of their governance as a means of attracting FDI. High-quality governance and overall institutional development are necessary ingredients for economic development. Indeed, countries with weak institutions of governance may attract the “wrong” kinds of investors.

The results also suggest that access to natural resources is a crucial motive for CSOEs. Thus, African policymakers should improve the quality of their governance to attract more manufacturing and technology intensive FDI. Natural resources can be depleted, and the markets for natural resources such as fossil fuels and most metals are very volatile. Thus, African countries need to diversify to other sectors that are more likely to sustain their economic development.

To broaden the type of FDI that African countries attract, they must strive to improve the overall quality of their political and economic governance institutions. To accomplish these goals, African countries must first seek to create inclusive political institutions of governance, meaning, political institutions that are decentralized, pluralistic, and do not concentrate power in the hands of a small number of elites with limited restrictions on how this power is exercised (Acemoglu & Robinson, 2012). Given the strong link between economic and political institutions, inclusive political institutions that are sufficiently pluralistic will lead to the rise of inclusive economic institutions of governance that provide secure private property rights and an unbiased legal system (Acemoglu & Robinson, 2012). Only by doing so will African countries move from being merely a source of natural resources for other countries to creating sustainable long-term economic development for themselves.

7 | CONCLUSION

Prior studies on governance and FDI have usually focused on explaining the direct effect of host-country governance on FDI. However, they have tended to neglect the role of foreign aid in the relationship. This article argues and presents empirical evidence to show that the effect of host-country governance on FDI by CSOEs in Africa is contingent on Chinese foreign aid in CSOEs' investments. We also demonstrate that the overall moderating effect on this relationship depends on the type of state finance. More commercially aligned state-financing types, specifically Chinese other official flows, and

loans deserve more attention from African policymakers when formulating foreign investment-related policies.

Our findings also have some managerial implications. The findings primarily suggest CSOEs would be attracted to African countries with the lowest levels of governance quality provided they have backing from their home government. CSOE managers are thus more likely to establish strong connections with the political regimes in African countries by leveraging good home-host-country diplomatic relations to avoid potential expropriation of assets. These connections point to an important role the foreign aid policy of the home government plays in influencing the location decisions of CSOEs in Africa. Intuitively, it can be argued that managers of CSOEs benefit from their home government's support and access to its diplomatic networks as a way of dealing with weak governance in host African countries.

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ENDNOTES

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- Under the “flow type” category we included only information for financial flows transferred as “loans” from the donor to the recipient for a project because loans represent less concessional forms of Chinese official financing. They are influenced to a larger degree by Chinese economic interests (Dreher et al., 2018) and used to foster Chinese investments as well as help CSOEs win investment contracts and compete with foreign firms (Brautigam, 2011; Corkin, 2007). We excluded all other flow types such as grants, scholarships, free technical assistance, and debt forgiveness.
- Information on the value is lacking for approximately 41% of the projects in the dataset. However, this is not as much of a problem as it might appear because the financial value of a project varies in almost equal fashion across types of flows (Dreher et al., 2018; Muchapondwa, Nielson, Parks, Strange, & Tierney, 2016). The lack of information also reduced the size of our sample and the final number of African countries included in our analysis.

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APPENDIX

TABLE A1 Key empirical studies in the literature on Chinese foreign aid and FDI in IB

Study	Purpose	Sample	Dependent variables	Independent variables	Findings
Lu et al. (2017)	The role of Chinese aid in mitigating host political risk for Chinese MNEs' OFDI	50 African countries Period: 2002–2012	Outward FDI	Political risk	<ul style="list-style-type: none"> Chinese aid negatively moderates the impact of political risk on Chinese OFDI.
Biggeri and Sanfilippo (2009)	How FDI, trade and aid interact in shaping Chinese OFDI	43 African countries Period: 1995–2005	Outward FDI	FDI, trade, and aid	<ul style="list-style-type: none"> China's move into Africa is driven by strategic interaction among FDI, trade, and economic cooperation.
Lew and Arvin (2015)	The links between aid and FDI and the motivations for investment and aid flows	25 African countries Period: 2000–2011	Total financial flow: aid + investment expressed as share of recipient GDP, FDI, and aid	Market size, home–host economic integration, natural resources, host country risk	<ul style="list-style-type: none"> Chinese financial flows are attracted to host countries with significant natural resources, market potential and political stability. Higher political stability is related to higher investment flows but only in the absence of armed conflict.
Sanfilippo (2010)	The determinants of Chinese OFDI	41 African countries Period: 1998–2007	Outward FDI	Bilateral trade and aid	<ul style="list-style-type: none"> Chinese OFDI is pushed by the need to secure natural resources, market potential. Chinese MNEs are less risk when existing relations between the home–host relations is considered proxied by aid.
Dong and Fan (2017)	What is the effect of China's aid and trade on its overseas direct investment?	50 African countries Period: 2002–2013	Outward FDI	Aid and trade	<ul style="list-style-type: none"> Natural resource exports significantly increase Chinese FDI. Aid invested in social and economic projects increases FDI. Aid invested in the productive sector negatively affects FDI.

TABLE A2 Host country information of FDI projects of Chinese SOEs in the sample

Country	Number of projects	Percentage
Algeria	9	7.20
Angola	9	7.20
Cameroon	2	1.60
Egypt	10	8.00
Ethiopia	8	6.40
Gabon	2	1.60
Ghana	3	2.40
Kenya	9	7.20
Madagascar	1	0.80
Morocco	3	2.40
Namibia	1	0.80
Niger	2	1.60
Nigeria	9	7.20
Senegal	2	1.60
South Africa	27	21.60
Sudan	4	3.20
Tanzania	4	3.20
Tunisia	2	1.60
Uganda	3	2.40
Zambia	14	11.20
Zimbabwe	1	0.80
Total	125	100.00

TABLE A3 Sectoral distribution of the sample of CSOEs' investment projects used in the regressions

Sector	Number of projects	Percent	Total capital expenditure (USD millions)
Aerospace	3	2.40	75.4
Alternative/renewable energy	2	1.60	2,400
Automotive components	1	0.80	2.18
Automotive OEM	19	15.20	1960.77
Building and construction materials	2	1.60	432.62
Business machines and equipment	1	0.80	4
Business services	2	1.60	21.4
Ceramics and glass	2	1.60	238
Chemicals	4	3.20	836.49
Coal, oil, and natural gas	14	11.20	10,761.6
Communications	18	14.40	604.11
Consumer electronics	5	4.00	74.52
Electronic components	1	0.80	57
Engines and turbines	1	0.80	7.9
Financial services	9	7.20	99
Food and tobacco	1	0.80	2.26
Healthcare	1	0.80	4.6
Industrial machinery, equipment, and tools	13	10.40	231.11
Metals	19	15.20	3,683.03
Minerals	1	0.80	55.6

(Continues)

TABLE A3 (Continued)

Sector	Number of projects	Percent	Total capital expenditure (USD millions)
Non-automotive transport OEM	3	2.40	126.4
Real estate	1	0.80	3,535
Transportation	2	1.60	61
Total	125	100.00	25,273.99

TABLE A4 Results: The effect of governance quality and moderating effects of aid using ICRG measure of governance

	[1]	[2]	[3] Total aid	[4] ODA-like flows	[5] OOF	[6] Loans
Political risk	-0.073** (0.036)	-0.046 (0.040)	-0.618* (0.363)	0.002 (0.557)	-1.077** (0.402)	-0.891** (0.419)
Total aid		-0.058 (0.092)	-0.447 (0.353)			
Political risk × total aid			-0.596* (0.346)			
ODA-like flows				0.936 (0.647)		
Political risk × ODA-like flows				0.832 (0.804)		
OOF					-0.819* (0.416)	
Political risk × OOF					-1.028*** (0.362)	
Loans						-0.652 (0.402)
Political risk × loans						-1.126*** (0.359)
GDP (log)	-0.518 (0.399)	-0.230 (0.293)	-0.258 (0.290)	-0.255 (0.419)	-1.322** (0.520)	-0.423 (0.377)
GDP per capita growth	-0.016 (0.071)	-0.064 (0.072)	-0.067 (0.070)	-0.138** (0.064)	-0.144 (0.113)	-0.074 (0.090)
Oil rents	0.031 (0.021)	0.043* (0.025)	0.049* (0.025)	0.067*** (0.025)	0.079* (0.043)	0.075** (0.034)
Mineral rents	0.071 (0.044)	0.081* (0.047)	0.102** (0.048)	0.058 (0.061)	-0.033 (0.062)	0.093* (0.051)
Inflation	-0.037* (0.021)	-0.006 (0.005)	-0.009* (0.005)	-0.001 (0.012)	-0.037 (0.028)	-0.009 (0.006)
Mobile cellular subscriptions	-0.006 (0.010)	-0.002 (0.013)	0.001 (0.013)	-0.011 (0.017)	0.017 (0.014)	0.009 (0.015)
Real effective exchange rate	0.001 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.007 (0.007)	-0.020** (0.009)	-0.005 (0.007)
Foreign direct investment	0.101 (0.085)	0.078 (0.099)	0.095 (0.098)	0.065 (0.122)	0.175 (0.109)	0.238** (0.117)
Constant	21.213** (10.347)	13.948* (8.309)	11.792 (7.345)	12.561 (12.309)	39.337*** (13.761)	16.692* (9.740)
Observations	125	96	96	79	64	76
R ²	.325	.308	.324	.396	.465	.408
VIF	1.96	2.07	3.34	3.08	2.91	2.16
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Note: Heteroscedasticity robust standard errors are in parentheses *, **, and *** denote significance at the 10%, 5%, and 1% confidence levels, respectively.

Abbreviations: ODA, official development assistance; OOF, other official flows.

TABLE A5 Results—Panel regression with fixed effects: The effect of governance quality and moderating effects of aid

	[1]	[2]	[3]	[4]	[5]
The quality of governance	−5.949*** (1.836)	−3.187*** (0.999)	−4.985*** (1.441)	−3.632 (3.582)	−0.259 (2.255)
Total aid		−1.154** (0.484)			
The quality of governance × Total aid		−0.741* (0.390)			
ODA-like flows			−0.164 (1.445)		
The quality of governance × ODA-like flows			0.147 (2.631)		
OOF			−0.528 (0.500)		
The quality of governance × OOF			−1.960** (0.649)		
Loans					−1.440*** (0.420)
The quality of governance × loans					−1.172* (0.620)
GDP (log)	0.110 (3.522)	−2.104 (3.120)	4.319 (3.130)	6.102*** (1.507)	0.788 (3.364)
GDP per capita growth	−0.157 (0.113)	−0.129 (0.087)	−0.209 (0.127)	−0.192 (0.167)	−0.169 (0.137)
Oil rents	0.242** (0.115)	0.309*** (0.091)	0.151 (0.164)	0.308*** (0.078)	0.394*** (0.080)
Mineral rents	0.163* (0.083)	0.124 (0.076)	0.204* (0.106)	0.296** (0.122)	0.046 (0.137)
Inflation	0.005 (0.035)	0.008 (0.034)	0.031 (0.046)	−0.001 (0.036)	0.050* (0.027)
Mobile cellular subscriptions	−0.077*** (0.022)	−0.079*** (0.024)	−0.073 (0.045)	−0.016 (0.013)	−0.065* (0.031)
Real effective exchange rate	−0.013 (0.025)	0.005 (0.021)	−0.035 (0.029)	−0.032 (0.019)	0.005 (0.018)
Foreign direct investment	−0.161 (0.099)	−0.082 (0.063)	−0.095 (0.242)	−0.097 (0.089)	−0.159* (0.088)
Constant	0.744 (85.284)	54.828 (75.495)	−97.129 (75.261)	−147.651*** (36.281)	−14.553 (80.967)
Observations	61	61	52	38	48
Group variable	Host country	Host country	Host country	Host country	Host country
Number of groups	19	19	17	13	17
corr(u _i , Xb) _i	−0.9589	−0.9643	−0.9832	−0.9859	−0.9663
sigma _u	6.5070161	6.6217555	10.736328	10.522667	8.4094557
rho(fraction of variance due to u _i)	0.93625545	0.94374838	0.9659899	0.98211433	0.96850348
Within R ²	.568	.644	.575	.702	.827
Year fixed effects	Yes	Yes	Yes	Yes	Yes

Note: Heteroscedasticity robust standard errors are in parentheses *, **, and *** denote significance at the 10%, 5%, and 1% confidence levels, respectively. Abbreviations: ODA, official development assistance; OOF, other official flows.