

THE DOMESTIC POLITICAL ECONOMY OF CHINA'S FOREIGN AID

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Abstract

I study how domestic political considerations influence the foreign policy choices of autocratic regimes, by analyzing China's foreign aid. First, using contractor-level data, I document how the regime uses foreign aid projects to help maintain domestic stability: aid projects are awarded to state-owned firms in Chinese prefectures hit by social unrest, increasing employment and future political stability. Second, I find that this strategy to manage domestic unrest affects the global allocation of Chinese aid, since state-owned firms pursue projects in countries where they have prior connections.

Keywords: political economy, political stability, unrest, foreign policy, foreign aid, China

JEL codes: E24, F35, O10, O25, P20, P21, P33

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1. Introduction

The 21st century has seen the political and economic rise of modern autocracies that increasingly challenge the established world order (Yang, 2024), raising important questions about the determinants of their foreign policies. While it is well understood how domestic interests shape the foreign policies of democratic governments (e.g., Milner, 1997; Nunn and Qian, 2014; Aidt, Alborno and Hauk, 2021), their political logic does not readily apply to autocratic regimes. Political-economic theory suggests that autocrats' ultimate objective is to remain in power by securing domestic political stability (Bueno De Mesquita et al., 2005; Egorov and Sonin, 2024). This raises the question whether autocrats' need to maintain political stability could determine their foreign policy choices.

I address this question in the context of China's foreign aid. China is not only the world's

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largest autocracy and the main geo-economic competitor to the United States, but also a particularly salient context for studying the domestic political economy of autocratic foreign policy. Maintaining political stability is a key objective of the regime (e.g., [Shirk, 2008](#)). At the same time, China has emerged as the largest non-democratic foreign aid donor in the world ([Dreher et al., 2022](#)). In theory, there are strong complementarities between China’s political stability goal and its foreign aid: Much of its foreign aid consists of loans for infrastructure projects, which can create jobs for Chinese workers and opportunities for Chinese firms, among other benefits. Job provision by state-owned firms in response to social unrest in particular plays a key role in the regime’s strategy to secure social stability.¹

Correlational evidence supports the conjecture that China’s foreign aid is influenced by its need to maintain political stability. As Figure 1 shows, Chinese firms tend to implement more foreign aid projects following years of higher domestic unrest. However, establishing causality is challenging. The internal political processes and motives underlying autocratic regimes’ decisions are typically not observed. Moreover, the possibility that foreign aid projects could help the regime secure domestic stability *per se* does not require that this objective actually drives their allocation. In addition, there could be joint determinants of domestic stability and foreign aid, such as the macroeconomy.

To address these challenges, I construct a novel contractor-level dataset that allows me to empirically document China’s internal aid allocation process and link it to subnational variation in domestic unrest in 2004–2017. I use this dataset to study the domestic political

¹Social unrest is common in China ([Lorentzen, 2013](#); [Qin, Strömberg and Wu, 2021](#)). The state uses various measures to address domestic unrest, including both tools of repression ([Beraja et al., 2023](#)) and concessions ([Pan, 2020](#)). In particular, public employment plays a key role in the state’s response to domestic unrest ([Wen, forthcoming](#)). Foreign aid projects can generate employment for Chinese workers, thus increasing their opportunity cost of protesting and raising state legitimacy. In addition, foreign aid arguably provides other benefits to the state and has advantages over other stimulus measures (see Section 2).

determinants of China’s foreign aid in two steps. First, I test whether foreign aid is part of the regime’s strategy to secure domestic political stability, and whether foreign aid projects effectively help suppress future unrest. Second, I test whether the regime’s need to manage domestic unrest in turn affects the allocation of these projects to other countries.²

Turning to the first step of my analysis, I examine whether and how China’s foreign aid is part of the regime’s strategy to maintain domestic political stability. To do so, I exploit variation over space and time in the allocation of aid contracts to domestic firms and in shocks to local stability within China. Specifically, I test whether the regime allocates more foreign aid contracts to local contractors in Chinese prefectures hit by unrest. I find that it does: Contractors in prefectures experiencing a one standard deviation increase in the number of local labor unrest events receive 0.32 SD more aid contracts in the following year on average.

The baseline specification addresses many potential confounders, including macroeconomic and local economic shocks, by controlling for province-specific year fixed effects, prefecture fixed effects, prefecture-specific time trends, as well as prefecture-year level local GDP, government revenue and population. Yet, an important remaining concern is that the allocation of aid contracts to firms was already on a different (non-linear) trend in locations experiencing unrest (e.g., due to the anticipation of future unrest or reverse causality). However, I find that aid contracts only respond to unrest in the prior year and find no increases of aid contracts before periods of unrest. In addition, unobserved determinants of aid contract allocation and local unrest at the prefecture and year level might be driving their correlation. To address this and further potential concerns, I use an instrument for local unrest based on variation in daily local weather conditions interacted with unrest

²I do not hypothesize that foreign aid is the only way the regime secures domestic stability, or that securing domestic stability is the only motive behind China’s foreign aid as a whole. Rather, I ask whether China’s strategies to secure domestic stability include foreign aid, and whether its foreign aid allocation is also determined by its domestic political objectives.

occurrences in other prefectures (following [Beraja et al., 2023](#)). Finally, several falsification tests are consistent with political rather than purely economic factors behind the regime’s response to unrest: local unrest is unrelated to the allocation of commercial projects or the allocation of aid contracts to primarily profit-maximizing firms.

I also examine the mechanisms underlying the regime’s use of aid projects to address domestic unrest. I document that the response to unrest is driven by subsidiaries of central SOEs, which I show to internalize the regime’s domestic stability goal (using a systematic text analysis of their annual reports). In addition, I find that the allocation of aid contracts to firms in response to local unrest complements the allocation of domestic government procurement contracts to these firms. Aid contracts are primarily allocated to firms in prefectures with high existing local government spending and particularly severe unrest, which helps explain why the central state uses foreign aid projects to help secure stability in addition to domestic stimulus and other measures by local governments.

The allocation of aid contracts in response to local unrest suggests that the regime believes in their effectiveness to secure stability. I provide evidence for the effectiveness of the regime’s strategy along two dimensions: First, I document that employment by central state-owned aid contractors, but not by other firms, increases in response to local unrest. Second, I find that the allocation of aid contracts to firms in a given prefecture effectively reduces the occurrence of future unrest in that prefecture. Taken together, this first set of results implies that foreign aid projects play a significant role in the Chinese regime’s strategy to maintain domestic political stability.

Turning to the second step of my empirical analysis, I test whether the regime’s domestic stability goal is a significant determinant of its foreign aid allocation to other countries in the first place. This is not *ex ante* obvious. While I have established that the regime uses foreign aid projects to help address domestic unrest, the global allocation of this aid could, in theory, be solely determined by the regime’s foreign policy or other goals. In that case, the response to domestic unrest would only determine which Chinese firms receive a given set of contracts.

On the other hand, if unrest in China affected how much aid other countries receive and when, this would imply that the regime’s domestic stability goal, rather than foreign policy or other goals alone, is a determinant of China’s aid allocation to other countries.

To distinguish between these two possibilities, I study how the regime and contractors interact in the allocation process. Qualitative evidence suggests that in response to unrest in a prefecture, firms based in that prefecture could lobby the governments of countries they have prior connections with to collaborate on aid projects, alongside the Chinese central government ([Zhang and Smith, 2017](#)). Local unrest in Chinese prefectures could thus lead to more aid being given to countries that have existing connections to firms in those prefectures.

Based on this idea, my empirical strategy regresses the amount of foreign aid received by a country in a given year on the interaction between local labor unrest shocks in Chinese prefectures with existing connections between the country and firms in those prefectures. I measure the country-prefecture connections as the fraction of past aid projects received by a country from firms in the prefecture. An advantage of this specification is that it allows for the inclusion of the same fixed effects and prefecture-year level controls as in the earlier analysis, in addition to country and year fixed effects. It thus again exploits the variation in the subnational distribution of local unrest occurrences across prefectures within a given year, which is plausibly conditionally exogenous to recipient countries. The existing connections between countries and firms are allowed to be endogenous, based on results from the recent econometrics literature ([Borusyak, Hull and Jaravel, 2022](#)).

I find that the distribution of local unrest across prefectures indeed significantly influences the allocation of Chinese aid to other countries. A back-of-the-envelope calculation shows that the total number of domestic unrest events across all Chinese prefectures in a given year could lead to the re-allocation of up to 18% of China’s foreign aid within a given year. This implies that China’s need to maintain domestic political stability, rather than foreign policy or other goals alone, is a significant determinant of its global foreign aid allocation.

Taken together, the results in this paper demonstrate the role of foreign aid in an

autocratic regime’s strategy to secure domestic political control, and how this key policy goal in turn affects its global foreign aid allocation. More generally, these findings highlight the importance of understanding the interactions between autocrats’ domestic and foreign policies. My results show how autocrats’ global activities may not only be driven by foreign policy goals, but also by domestic political necessity.

A key contribution of this paper is that it connects the empirical literature on the political economy of non-democracies with the literature on the determinants of foreign aid. Economists have documented various strategies used by non-democratic regimes to secure political stability, including propaganda, repression, and economic policies (e.g., [Adena et al., 2015](#); [Blattman and Annan, 2016](#); [Cantoni et al., 2024](#); [Egorov and Sonin, 2024](#)). Additional studies specifically examine the Chinese state’s response to domestic instability ([King, Pan and Roberts, 2013](#); [Cong et al., 2019](#); [Pan, 2020](#); [Fisman et al., 2021](#); [Beraja et al., 2023](#); [Campante, Chor and Li, 2023](#); [Wen, forthcoming](#); [Yang, 2024](#)).³

However, much of this work focuses on the domestic causes and consequences of political (in)stability within autocracies. I provide causal evidence for the interactions between an autocratic regime’s domestic political economy and its foreign policy. By documenting the role of foreign aid in securing domestic political stability and the underlying mechanisms, I show how an autocracy’s pursuit of domestic political goals can generate externalities for other countries, as well as how existing connections with the autocracy affect the distribution of those externalities. As such, my work relates to studies on the consequences of political-economic developments in China for other countries (e.g., [Autor, Dorn and Hanson, 2016](#)).

I also contribute to the large literature on foreign aid. Earlier studies documented that foreign aid is allocated according to donors’ policy goals (e.g., [McKinlay and Little, 1977](#); [Alesina and Dollar, 2000](#); [Kuziemko and Werker, 2006](#); [Dreher, Nunnenkamp and Thiele,](#)

³A recent literature examines the political economy of civil participation in China more generally (e.g., [Bai and Jia, 2016](#); [Chen, Pan and Xu, 2016](#); [Cantoni et al., 2019](#); [Bursztyn et al., 2021](#); [Qin, Strömberg and Wu, 2021](#); [Cantoni et al., 2022](#); [Martinez-Bravo et al., 2022](#)).

2008; Faye and Niehaus, 2012; Nunn and Qian, 2014; Aidt, Albornoz and Hauk, 2021). Several studies document the domestic political drivers of foreign aid in particular. Most of this work in economics has traditionally focused on democratic and multilateral donors (e.g., Fleck and Kilby, 2006; Milner and Tingley, 2010; Dreher et al., 2013; Brech and Potrafke, 2014; Ahmed et al., 2016; Kersting and Kilby, 2016), but less is known about how authoritarian politics shape foreign aid. Understanding the domestic political-economic drivers of autocratic aid is important not only because of autocrats’ growing global influence, but also because their institutions and political processes work differently.

Recent studies have rigorously examined the determinants and consequences of China’s foreign aid specifically, primarily leveraging AidData’s contributions to institutional knowledge and data. Much of the work on the drivers of China’s aid allocation “relies on conditional correlations rather than causally-identified results” (see Dreher and Parks, 2024, pg. 252), or primarily uses variation across and within recipient countries and does not study the domestic political economy behind China’s aid (e.g., Dreher et al., 2018, 2019; Cervellati et al., 2022; Hoeffler and Sterck, 2022). An exception is the contemporaneous study by Liu and Zhang (forthcoming), which finds that Chinese aid projects generate revenues for labor-intensive state-owned enterprises by fostering trade, consistent with domestic political motives shaping China’s aid model. Further existing studies primarily examine the impacts of Chinese aid on recipients (see the review by Mandon and Woldemichael, 2023). Several influential papers exploit macroeconomic variation to examine the effects of Chinese aid on recipients. For example, building on the hypothesis that domestic economic interests drive aid allocation, Dreher et al. (2021), Bluhm et al. (2025) and others leverage variation in aid receipt due to a country’s odds of receiving aid and aggregate changes in Chinese production of construction materials or foreign exchange reserves. I document the domestic process and political logic behind China’s aid allocation by analyzing new, contractor-level data. I thus present causal evidence for how the need to maintain domestic political stability explains the timing and geographic distribution of a significant share of autocratic foreign aid.

This paper proceeds as follows. Section 2 provides background on China’s political economy, its foreign aid, and their connection. Section 3 introduces the data. Section 4 examines how Chinese foreign aid helps secure social stability in China. Section 5 examines how China’s domestic political economy in turn affects its global foreign aid allocation. Section 6 offers concluding remarks.

2. Background

2.1. The Political Economy of Unrest in China

Autocratic regimes’ ultimate objective is political survival ([Bueno De Mesquita et al., 2005](#); [Egorov and Sonin, 2024](#)). Since social instability threatens regime legitimacy and ultimately survival, addressing it is a primary policy goal of all autocrats.

Local labor unrest events, such as worker strikes over wage arrears, seemingly paradoxically fulfill an important function in the regime’s ability to maintain stability. The Chinese state is highly decentralized and the central government often only has incomplete information about local issues. Local unrest serves as a signal for the state to identify grievances by the public and to monitor local government officials, addressing the information asymmetry between the central and local governments ([Lorentzen, 2014](#)). Local unrest thus indicates to the central government where it needs to allocate public resources to prevent local issues from spreading into larger movements that could threaten national stability, which is what the regime is ultimately concerned about ([Lorentzen, 2013](#)). This helps explain why reports of labor unrest have been common in Chinese media ([China Labour Bulletin, 2019](#)).⁴

To be sure, autocratic regimes use repressive tools such as surveillance and public security measures to address unrest ([Beraja et al., 2023](#)). However, suppressing all unrest with force could undermine their legitimacy. The Chinese regime’s legitimacy since Mao has in large part relied on its ability to promote the economic well-being of its population ([Yang and](#)

⁴See Online Appendix [A.1](#) for more background on unrest in China.

[Zhao, 2018](#)). The modern Chinese regime thus relies on a set of soft and sophisticated population control measures ([Yang, 2024](#)).

Economic policies and concessions play an important role in the regime’s response to domestic unrest. In particular, the central government requires state-owned firms to use public employment to “effectively maintain unity and social stability” ([Bai, Lu and Tao, 2006](#)). One key mechanism here is that employment decreases protest participation by increasing workers’ opportunity cost of engaging in unrest ([Becker, 1968](#); [Blattman and Annan, 2016](#)). In addition, employment can reduce unrest through psychological channels, and the demonstration of the regime’s ability to provide economic well-being fosters its legitimacy ([Yang and Zhao, 2018](#)). Public employment as a pacification policy has several advantages over other tools at the government’s disposal. For example, welfare payments may be susceptible to fraud, be seen as unfair, and create moral hazard ([Wen, forthcoming](#)).

The Chinese central government first and foremost encourages local governments to create employment and shore up public support to address unrest ([Campante, Chor and Li, 2023](#)). Local governments in China are responsible for 85% of government budgetary spending and responsible for most domestic infrastructure investment in their regions ([Lin, 2022](#)). Due to the potential for moral hazard, it is in the interest of the central government to let local governments primarily address local unrest using their own funds.

However, high domestic spending may be insufficient, have decreasing returns, and lead to unsustainable debt levels among local governments, impeding their ability to further stimulate demand. Apart from central government transfers, local governments primarily finance themselves via business taxes and land sales, which are both pro-cyclical and have decreased in recent years. Local governments have thus had to increasingly rely on costly off-budget borrowing ([Cong et al., 2019](#); [Lin, 2022](#)).

2.2. Foreign Aid Projects to Address Domestic Unrest

Foreign aid projects, which are typically financed by the central government and contracted by Chinese firms, offer a potential solution to the issues described above. First, aid projects can generate counter-cyclical or acyclical demand for Chinese goods, thereby creating jobs for Chinese workers in domestic factories and overseas. On the one hand, employment can decrease domestic unrest participation by increasing workers' opportunity cost of protesting (Becker, 1968). On the other hand, aid contractors could specifically hire would-be protesters and send them abroad, such that they are no longer able to engage in unrest in China and even deter other protesters. Second, foreign aid projects support the survival of labor-intensive but less competitive state-owned enterprises, which play a crucial role in maintaining social stability (Liu and Zhang, forthcoming). Third, since most of China's aid comes in the form of loans that are repayable by other countries, it does not add to China's domestic debt in the long term. Fourth, unlike domestic infrastructure projects, aid projects tend not to benefit local government officials directly and thus reduce the likelihood of moral hazard. Finally, providing foreign aid to other countries benefits China in other ways, such as by promoting trade and political alliances with other countries (Dreher et al., 2018). From the central state's perspective, giving foreign aid could thus complement other domestic stability measures, particularly when domestic returns are low and unrest is severe.

China scholars such as Shirk (2008) and Copper (2016) therefore believe that China's foreign policy, including its aid allocation, is heavily influenced by its domestic stability goal. For example, Copper (2016) comments on the government's reaction to the 2008/2009 crisis: *"The unemployment rate went up and China experienced greater economic and social instability. Cutting wages helped China adjust, but it also caused further worker unrest. [...] The government approved more infrastructure projects (roads, railroads, etc.) but that still wasn't enough. One remedy was giving still more foreign assistance in the form of aid."*

2.3. The Chinese Foreign Aid Allocation Process

The characteristics and the allocation process of China’s foreign aid are consistent with a domestic stability motive.⁵ Most of China’s foreign aid, in terms of financial value, comes in the form of bilateral loans for large-scale infrastructure projects such as ports, pipelines, and roads. In contrast to Western aid, China does not officially attach policy conditions. It does, however, usually require that at least 50% of goods and labor used in the projects be supplied by Chinese firms, which are often state-owned (Gelpern et al., 2023).

Figure A.1 schematically illustrates the Chinese aid allocation process.⁶ The CPC Central Committee and the State Council, the highest organs of the regime, oversee the foreign aid program. Their overarching policy goal is political stability (Shirk, 2008). Their main role is to provide strategic guidelines to lower levels of government and state-owned enterprises.

Within the central government, the Ministry of Commerce (MOFCOM), rather than the Ministry of Foreign Affairs like in most other countries, primarily manages China’s aid

⁵According to AidData, with 843 billion USD spent across 165 countries between 2000 and 2021, China’s development finance has started exceeding the United States’ spending in developing countries (Custer et al., 2021; Dreher et al., 2022). China’s development finance includes both ODA-like (Official Development Assistance) and OOF-like (Other Official Finance) finance. ODA-like finance is concessional and meets the conventional notion of Western foreign aid, including grants and concessional loans. According to AidData, 74% of Chinese development finance projects have a concessional element, corresponding to almost 20% of the financial value of China’s official finance. I focus on these projects and refer to them as “foreign aid” or “ODA” projects. OOF-like finance, which I study for comparison, is less concessional and includes, for example, loans at commercial rates. See Online Appendix A.3 and Section 3 for more discussion and definitions.

⁶The political process and organization of the involved entities described here correspond to the period studied in this paper (2004–2017). Some aspects have changed with the creation of China’s International Development Cooperation Agency (CIDCA) in 2018.

program. MOFCOM’s mandate includes fostering domestic economic growth and employment stability (Zhang and Smith, 2017). It collaborates with and subsidizes the Chinese Export-Import Bank (EXIM), which provides the principal for the loans.

Although there is officially a bidding process for projects, the list of bidders is typically ‘pre-approved.’ The Chinese government typically does not disburse loans and other funds to recipient countries, but instead pays the Chinese contractors directly to deliver goods and services to the recipient countries. This leads to a relatively fast and less bureaucratic process (Brautigam and Hwang, 2020). Even though recipient countries do not receive the funds directly, they have to repay the loans to the Chinese state upon maturity.

In practice, MOFCOM’s Department of Foreign Aid typically relies on Chinese firms, often state-owned, to initiate and select projects (Zhang and Smith, 2017). Especially state-owned firms under the direct control of the central government have become highly influential by building political and economic relationships in developing countries since China’s launch of the “Go Out” policy in the early 2000s.⁷ To avoid competition and exploit returns to scale, different firms specialized in different sets of countries.

Hence, when there is unrest in a given prefecture in China, firms from those prefectures could lobby the governments of recipient countries they have prior connections with, along with the Chinese central government, to collaborate on aid projects. The Chinese central government could then allocate financing to projects and firms that create jobs in prefectures experiencing unrest. Unrest could thus lead to the re-allocation of financing within the national aid budget or to the creation of new foreign aid projects. In addition, because of these firms’ role in influencing the aid allocation process, unrest in China could also direct

⁷When former President Jiang Zemin first proposed the “Go Out” strategy in 1997, he stated that “We should [...] systematically organize and support a group of key large- and medium-sized state-owned enterprises to go global, creating an initial scale for expanding into foreign markets. This is a major strategy, serving both as an important strategy for opening up and as a crucial strategy for economic development.” (Jiang, 2006, pg. 92).

aid to specific countries. See Online Appendix [A.2](#) for a practical example of this process.

In sum, through the processes described above, contracts for foreign aid projects could be allocated to Chinese firms in response to unrest in Chinese prefectures. The distribution of local unrest across Chinese prefectures could in turn influence the allocation of aid projects to other countries. I now proceed to empirically testing these hypotheses.

3. Data

To unpack the Chinese internal aid allocation process and implement my empirical strategy, I combine granular data on aid projects, their contractors, and local unrest.

My dataset takes the rich project-level data on foreign aid projects from AidData’s Global Chinese Development Finance Dataset 2.0 ([Custer et al., 2021](#); [Dreher et al., 2022](#)), which includes detailed information on the characteristics, recipients and contractors of Chinese aid projects in 2000–2017, and adds two new pieces of information on the domestic origins of these projects. First, I identify the domestic subsidiary that contracted each project using previously unused records from the Chinese Ministry of Commerce, data on firm networks from the credit registry, and a systematic search of hundreds of firm websites and other sources. Second, I link each subsidiary to data on incidents of labor unrest in its home prefecture (city) from [Elfstrom \(2017\)](#) and [China Labour Bulletin \(2019\)](#) in 2003–2019.

The resulting dataset includes the number and value of foreign aid projects implemented by Chinese contractors in each country and year in 2004–2017 as well as the number of labor unrest events in the contractors’ home prefectures in each year. The main sample includes projects classified by AidData as “ODA-like” or “Vague”, which I both refer to as “aid” or “ODA” for ease of exposition. The less concessional “OOF-like” projects serve as comparison. Most of the projects are in the form of hard infrastructure, such as roads and power plants. I additionally link firm-level administrative data from the Chinese tax surveys to measure firm employment, as well as other datasets such as customs records and domestic procurement data. All financial values are converted and deflated to constant 2017 USD.

See Online [Appendix B](#) for a detailed description of the dataset, the data construction methodology, potential measurement issues, and descriptive statistics.

4. The Role of Foreign Aid in China’s Domestic Policy

I begin my empirical analysis by examining whether and how China’s foreign aid is part of the regime’s strategy to maintain domestic political stability, providing a domestic motive for its foreign aid allocation. I then investigate how effective this strategy is in securing future political stability, as well as how it complements domestic stabilization measures. In Section 5, I then examine whether the regime’s strategy to manage domestic unrest affects the allocation of these projects to other countries.

4.1. Empirical Strategy

Figure 1 shows that the total value of aid projects contracted by Chinese firms in a year closely tracks the number of unrest events in China in the previous year, consistent with China using foreign aid to help secure domestic stability. However, it is difficult to establish causality based on Figure 1. For example, aid and unrest could be jointly determined by a third factor, such as a global recession that simultaneously increases the levels of unrest across China and the demand for Chinese aid by other countries.

To address these challenges, I exploit variation over space and time in the allocation of aid contracts to firms and in shocks to local stability within China. Specifically, I test whether more contracts for foreign aid projects are allocated to firms that are based in Chinese prefectures experiencing more labor unrest. This allows me to control for joint determinants of overall political instability and demand for Chinese aid by other countries in a given year, addressing the empirical challenge outlined above.

I begin by estimating the following baseline specification at the prefecture-year level:

$$Aid_{p,t} = \beta Unrest_{p,t-1} + X'_{p,t-1}\Gamma + \alpha_p + \delta_{prov,t} + \zeta_p t + \epsilon_{p,t}, \quad (1)$$

where $Aid_{p,t}$ is the total number or $\log(1 + \text{financial value})$ of aid contracts allocated to firms in prefecture p in year t , and $Unrest_{p,t-1}$ is the number of labor unrest events in that prefecture in the previous year. $X'_{p,t-1}$ denotes a vector of control variables at the prefecture-year level, discussed further below. α_p and $\delta_{prov,t}$ denote the vectors of prefecture fixed effects and year fixed effects, which vary across provinces.⁸ ζ_{pt} denotes prefecture-specific time trends. $\epsilon_{p,t}$ denotes errors, which are clustered at the prefecture level. In the Robustness Section 4.3 below, I also report regressions with alternative sets of fixed effects and controls. The main sample for estimating this specification includes all prefectures with aid contractors and is restricted to prefectures for which control variables are available.⁹

The coefficient of interest is β . It captures the effect of local unrest on the number or log financial value of aid contracts allocated to firms in the prefecture in the next calendar year. I focus on effects after one year because the Chinese aid allocation process tends to be fast, but also examine different leads and lags in robustness checks. I interpret $\beta > 0$ as evidence for the Chinese government using foreign aid to help secure domestic stability.

Potential threats to identification in this model include omitted variables, reverse causality, and measurement error. The province-year fixed effects control for changes over time that affect all prefectures across China (or those within the same province) similarly. Specifically, they prevent omitted variable bias from unobserved potential joint determinants of the yearly levels of overall Chinese aid and unrest within a province, including macroeconomic shocks and national or provincial policies. The prefecture fixed effects control for time-invariant differences across prefectures, such as the number of aid contractors or the average unrest propensity in each prefecture. The prefecture-specific trends control for factors such as potential trends in unrest reporting over time, which could vary across prefectures.

The majority of unrest in my sample does not involve aid contractors and is unrelated to the conditions in the aid recipient countries, mitigating reverse causality concerns. Nev-

⁸A province contains around 10 prefectures on average. A prefecture is roughly a city.

⁹Aid contractors are defined as firms with at least one ODA project in the data.

ertheless, in robustness checks I control for various other leads and lags of local unrest to address potential reverse causality and spurious co-movement of local unrest and aid over time. The remaining threats to identification are prefecture-specific, time-varying variables that could be spuriously correlated with both lagged local labor unrest and the amount of aid contracts allocated to local firms. I address such confounders using controls and an IV strategy, which I introduce after presenting my baseline estimates.

4.2. Main Estimates

Figure 2 illustrates the main result of this section and Column (1) in Table 1 reports the corresponding coefficient. One additional unrest event in a Chinese prefecture is associated with the allocation of approximately 0.05 more aid contracts to firms in the prefecture in the following year, on average. The coefficient is statistically significant at the 1% level. Table A.7 shows the corresponding estimate for the contracts’ financial value instead of the number of contracts, which is qualitatively similar. Figures A.5 and A.6 illustrate the underlying variation, by showing the distribution of unrest events across prefectures in 2016 and the number of ODA contracts allocated to firms in prefectures in 2017, relative to prefecture fixed effects. As the figures show, firms in prefectures with high levels of unrest tend to contract a high number of aid projects in the next year.

To interpret the magnitude of the estimated effect, note that a one standard deviation increase in unrest increases the number of contracts allocated to firms in a prefecture in the sample by 0.32 SD on average. The total average number of lagged unrest events across all Chinese prefectures in a given year in 2004–2017 multiplied with the coefficient corresponds to 28.2 contracts, or around 34% of China’s yearly aid on average ($549.21 \cdot 0.0513/84 \approx 0.34$). 28.2 aid contracts have a total value of 1.33 billion USD on average, around 10% of average annual public security spending by the central government in the sample period (Ministry of Finance of the People’s Republic of China, 2012). These results demonstrate the importance of unrest for explaining China’s internal aid contract allocation, showing that foreign aid

projects play a significant role in the central government’s response to domestic unrest.

For comparison, Table A.8 shows the effect of unrest on the allocation of OOF-like contracts, which include projects with commercial character (e.g., government loans at commercial interest rates). Unrest has no statistically significant effect on the allocation of these contracts. This makes sense because such projects are primarily motivated by monetary rather than political interests (Dreher and Parks, 2024). From the perspective of the regime, it is rational to subsidize projects (i.e., provide ODA) when they yield political returns such as domestic stability, and to provide loans at commercial rates (i.e., provide OOF) when the primary motive is to generate financial returns on investment.

4.3. *Robustness*

Leads and lags. I first examine whether aid contract allocation reacts to the anticipation of unrest rather than its past occurrence. To address this possibility, in addition to the effect of unrest at $t - 1$ on the allocation of aid contracts at t , I test for effects of unrest from $t - 3$ to $t + 1$. As Table A.9 shows, the coefficients on the leads and lags of unrest other than $t - 1$ are small and statistically insignificant at conventional levels. This result is inconsistent with spurious trends or a reverse causal effect of aid allocation on unrest.

Further controls. As explained earlier, the prefecture and province-year fixed effects address many potential confounders. The main remaining threats to identification are prefecture-specific, time-varying variables that could be spuriously correlated with both lagged local labor unrest and the amount of aid contracts allocated to local firms within a given province and year.

Potential confounders include local economic shocks correlated with unrest that could independently influence aid contract allocation. However, note that for such confounders to explain the main estimates, they would have to be specific to the allocation of ODA-like contracts but not OOF-like contracts, and to central state-owned firms but not other firms (see Subsection 4.4 below). If economic shocks correlated with unrest did influence contract

allocation independently of the unrest itself, we should see a correlation between unrest and contract allocation for all types of projects and contractors, which we do not. This makes it unlikely for economic shocks to explain the results. A second potential concern is prefecture-specific local government policies. However, local policies are unlikely to play an important role, either. While local unrest is typically associated with local issues, aid project allocation is determined by central government entities.

Nevertheless, I control for local GDP, population, and government revenues to address potential confounders. Columns (2) to (5) of Tables 1 and A.7 show that the inclusion of these controls, either separately or together, does not affect the estimates.

Instrumenting for unrest. To provide further support for my interpretation of the estimates, I use exogenous variation in local weather conditions to construct an instrument for local unrest. The resulting IV addresses multiple concerns. First, it addresses potential unobserved local shocks that are not captured by the controls above. Second, it addresses concerns related to reverse causality because local weather is not determined by future aid allocation. Third, it generates variation in unrest that is orthogonal to unrest reporting.

The IV specification, pioneered by [Beraja et al. \(2023\)](#), is based on the 18 weather variables collected daily by weather stations across China. The variables can interact with each other to capture a wide range of weather conditions, and with whether unrest occurred in at least one other prefecture on a given day. The intuition is that on some days, politically salient issues lead to grievances in multiple prefectures, but local weather conditions on a given day influence whether these grievances lead to actual unrest in a given prefecture. For example, potential protesters are more likely to cause unrest when there is a reason to protest on a given day *and* no typhoon on that day. Predictors of unrest are then selected by LASSO to restrict the researcher’s degrees of freedom and reduce the dimensionality of the vector of potential instruments, and aggregated to the yearly level to match the variation in the data on aid contracts. I estimate the specification using the post-regularization method by [Chernozhukov, Hansen and Spindler \(2015\)](#). See [Beraja et al. \(2023\)](#) for more discussion.

Table A.10 shows the effect of local unrest, now instrumented by the LASSO-selected variables and controlling for uninteracted unrest in other prefectures, on aid contract allocation in the next year.¹⁰ The coefficient of interest is highly robust. This test corroborates the main result on the effect of local unrest on aid contract allocation.

A potential concern with this IV strategy is that local weather conditions could directly affect aid contract allocation through channels unrelated to unrest, violating the exclusion restriction. However, this is unlikely in this context for multiple reasons. First, it is important to note that local weather conditions are unlikely to affect the production of physical inputs for the type of aid projects driven by unrest (e.g., hard infrastructure). Second, as the first stage shows (Table A.11), only local weather shocks on days when unrest occurs elsewhere predict unrest in a given prefecture, while weather shocks by themselves do not affect unrest. Similarly, a reduced-form placebo check shows that uninteracted weather shocks do not predict aid allocation in a given prefecture. Finally, the IV estimates are qualitatively robust to controlling for local GDP, population, and government revenues, which themselves could, in theory, be outcomes of daily variation in weather (Dell, Jones and Olken, 2014) and could directly affect the allocation of aid. These results corroborate the interpretation that the instrument affects aid allocation through local unrest specifically rather than through other channels activated by weather shocks.

Placebo outcomes. Table A.12 shows the effect of lagged unrest on various prefecture-level outcomes. All coefficients are standardized for ease of interpretation. The results show

¹⁰Table A.11 shows the first stage. The LASSO-selected instruments include interactions of unrest elsewhere and snow occurrence, snow depth, gusts, and atmospheric pressure (indicative of typhoons). To address the potential concern that the instruments could be only weakly correlated with unrest, I conduct the weak-identification-robust sup-score test by Chernozhukov, Chetverikov and Kato (2013). Reassuringly, the test rejects the null hypothesis that unrest has no effect on aid contract allocation at the 10% level, in all specifications reported in Table A.10.

that local unrest is not associated with sizable changes in local population, GDP, government revenues, or wages in the next period. These results are again consistent with aid allocation being a result of the Chinese state’s response to unrest, rather than being an outcome of economic consequences caused by unrest.

Types of projects. As Table A.13, Columns (2) and (3) show, the response to unrest is driven by the allocation of contracts for infrastructure aid projects, which presumably generate jobs for Chinese workers. In contrast, unrest does not have a large or significant effect on the allocation of other projects such as technical assistance or emergency relief.

Types of unrest. As Table A.14, Column (3) shows, the main result is driven by unrest in sectors related to construction, manufacturing, and mining. In contrast, other forms of unrest, such as protests by taxi drivers or teachers, have no significant effect on aid contract allocation. This result is again consistent with infrastructure aid contracts being targeted to address unrest in the infrastructure sector, rather than being spuriously related to general occurrences of protests. See the Mechanisms section 4.4 below for further discussion of the types of unrest driving the results.

Other robustness checks. Online Appendix C discusses further robustness checks, including alternative samples, different combinations of fixed effects, robustness to treatment effect heterogeneity, spillovers across prefectures, and dropping specific prefectures and years.

4.4. Mechanisms

Having established that contracts for foreign aid projects are allocated to Chinese firms in response to domestic unrest, I now turn to the underlying mechanisms. I discuss the role of three important actors: the central government, which formulates national policy goals and oversees the aid program; firms, which bid on and implement the aid projects; and local governments, which are tasked with addressing local unrest using domestic measures.

As explained in the Background section, the central state, including the CPC Central Committee and the State Council, formulates China’s national policy goals and oversees the

national foreign aid program. The aid program is primarily managed by the national Ministry of Commerce (MOFCOM), which is tasked with both implementing domestic economic policies and the foreign aid program. In practice, MOFCOM primarily relies on Chinese SOEs to design and implement foreign aid projects (Zhang and Smith, 2017).

Table 2 shows that the response to domestic unrest is driven by Chinese firms owned by the central state (central SOEs). While local SOEs and private firms can also bid on and contract foreign aid projects, they do so independently of local unrest.

To help interpret this result, in Figure A.9 I show that central SOEs, but not other firms, internalize the central government’s domestic stability goal. The finding is based on a systematic text analysis of the annual reports of the firms in my sample.¹¹ For each firm and year, I count how frequently its annual reports mention each of several keywords related to maintaining social stability, relative to the total word count.¹² I then re-estimate the baseline specification using the first principal component of all key words as the outcome variable. As Figure A.9 shows, central state-owned firms, but not other firms, mention keywords related to maintaining social stability more frequently in response to local unrest. This result is consistent with theory positing that central SOEs internalize national policy goals, while other firms tend to be mainly profit-oriented (Bai, Lu and Tao, 2006). These results demonstrate that central SOEs play an important role in China’s response to unrest.

I next examine the role of local governments. Local governments are tasked by the central

¹¹For example, Dongfeng Automobile stated in its 2010 annual report that “the major tasks” for 2010 include “promoting stable growth of exports” to “improve people’s livelihood and to maintain social stability” (Dongfeng Motor Group Co. Ltd., 2010), quoting from the central government’s Central Economic Work Conference Communiqué.

¹²I focus on the subset of firms in my sample which are listed on the stock market or affiliates of listed firms in the same prefecture, for which annual reports are publicly available. Across all firms, I select several keywords related to social stability, security, and responsibility that appear at least once per year, on average, in firms’ annual reports.

government to use domestic spending to maintain employment stability and address unrest. Indeed, as Tables [A.18](#) and [A.19](#) show, Chinese contractors are not only allocated more aid projects but also given more and larger local domestic procurement contracts following local increases in unrest. This implies that contracts for foreign aid by the central government and domestic projects by local governments are complements.¹³

However, as explained in the Background section, local government spending has decreasing returns and may be insufficient to address unrest, particularly when the unrest reaches a scale that could threaten national stability. The central government is particularly concerned about such unrest ([Lorentzen, 2013](#)). This discussion suggests that foreign aid projects are particularly useful to address unrest when local governments have high existing levels of spending and when unrest is severe. I provide several empirical tests of these hypotheses.

I first distinguish between prefectures with high and low public expenditure to GDP ratios. Higher ratios reflect more potential fiscal constraints on the local government to stimulate demand using further spending. One can expect aid contract allocation to be particularly responsive to unrest in more fiscally constrained prefectures, but less responsive in less constrained prefectures. As Table [A.13](#), Columns (4) and (5) show, the response of aid contract allocation to local unrest is indeed driven by prefectures with high existing local government spending.

¹³I regress the number or log financial value of domestic government procurement contracts allocated to firms in my sample in a given quarter on local unrest in the previous quarter, controlling for baseline fixed effects and controls. Unlike data on aid contracts, which is available only at the yearly level, data on procurement can be obtained at a higher frequency. Moreover, domestic procurement contracts can be produced faster than contracts for foreign aid projects. The procurement data are based on the official China Government Procurement website and available for 2013–2019. Note that while the effects of unrest on the number of aid and domestic procurement contracts are comparable, procurement contracts are on average significantly smaller than aid contracts (1.64mn vs. 47mn).

I next explore whether the response to unrest differs by their severity. I first distinguish between unrest events that provoked a repressive response by the local government and events that did not. A response is classified as repressive if the government response description provided in the unrest data includes one of the keywords *police*, *arrest*, or *fine*. Table A.14, Column (4) shows that aid contracts are primarily allocated following unrest with a repressive government response. This result is consistent with aid contracts being allocated especially in response to severe unrest and again consistent with aid being complementary to other stabilization measures, including public security measures. This interpretation is further corroborated by Figure A.10, which examines the non-linear effects of unrest intensity. It shows that the aid allocation response is disproportionately driven by prefecture-years with unrest intensity in the highest decile of the unrest distribution during the sample period. The central government is likely particularly concerned with periods of severe unrest because they could indicate threats to national stability rather than just local stability.

In sum, the evidence shows that the response to unrest is driven by firms that internalize the central government’s national stability goal, and that aid contract allocation by the central government complements domestic measures by local governments. This response is especially pronounced when local government responses may be insufficient and when the unrest is severe enough to threaten national stability. This evidence demonstrates why and how the Chinese central government uses foreign aid projects to help secure domestic stability in addition to domestic measures taken by local governments.

4.5. Does Aid Contract Allocation Help Secure Future Stability?

The allocation of aid contracts in response to local unrest suggests that the regime at least believes in their effectiveness to help secure stability. I examine whether the regime’s strategy is effective along two dimensions. I first test whether aid projects increase employment of Chinese workers. As explained the Background section, increased employment by Chinese workers at home and abroad plausibly helps secure domestic stability in China. I second

test whether future unrest is less likely to occur in prefectures that received aid contracts.

Effects of aid on employment. Table 3 examines the effect of local unrest on domestic firm employment. Employment data is available for a subset of firms in 2007–2015. Column (1) shows that central SOE aid contractors on average increase their employment by approximately 2% for every additional unrest event in their home prefecture. The effect is statistically significant at the 5% level. In contrast, unrest has no effect on employment in other firms.

To help interpret the magnitude of this effect, note that 19 unrest events, which on average lead to one additional aid contract according to Table 2 Column (1), result in 1,104 additional jobs among central SOE aid contractors on average.¹⁴ 19 unrest events on average involve an estimated 17,626 participants.¹⁵ That is, aid projects are estimated to produce up to one additional domestic job in Chinese central SOE aid contractors per approximately 16 unrest participants. In addition, aid projects likely generate additional jobs for Chinese workers in aid recipient countries. While no firm- or aid-project specific data are available, the number of Chinese construction workers in developing countries was estimated to be over 350,000 in 2015 (National Bureau of Statistics, 2016).

Effects of aid on future unrest. I next test whether aid contracts help reduce future unrest. Given that aid contracts are a function of unrest in the previous year, a regression of future unrest on aid contracts would be biased if there is auto-correlation over time in local unrest. I instead follow Beraja et al. (2023) and test whether past aid contracts mitigate the effects of exogenous shocks on unrest. As the LASSO IV first stage discussed earlier shows,

¹⁴I calculate the number of jobs as the coefficient in Table 3 Column (1) times the average number of employees in central SOE aid contractors: $0.0219 \cdot 2653.35 \cdot 19 \approx 1,104$.

¹⁵I use the median of the range of the estimated number of participants provided for a subsample of the unrest data. Unrest events with “tens of thousands of participants” in the original data are coded as 10,000 participants. A lagged unrest event is estimated to involve 927.7 participants on average in the years covered by the firm sample (2007–2015).

certain weather conditions can trigger local unrest in places with unrest potential. If such exogenous shocks are less conducive to unrest in places that previously received more aid contracts, this indicates that aid contracts help reduce future unrest.

To implement this test, I regress the number of unrest events in a prefecture and year on local weather shocks, allowing the effect of weather shocks on unrest to vary with the number of aid contracts allocated to firms in the prefecture in the past:

$$\begin{aligned} Unrest_{p,t} = & \beta_1 AidStock_{p,t-1} + \beta_2 ConduciveWeather_{p,t} \times AidStock_{p,t-1} \\ & + \beta_3 ConduciveWeather_{p,t} + X'_{p,t-1}\Gamma + \alpha_p + \delta_{prov,t} + \zeta_p t + \epsilon_{p,t}, \end{aligned} \quad (2)$$

where $ConduciveWeather_{p,t}$ is constructed as the number of unrest events in a prefecture p and year t predicted by the LASSO-selected IVs from Section 4.3, partialing out the baseline fixed effects. $AidStock_{p,t-1}$ is constructed as the number of aid contracts allocated to firms in prefecture p up to $t - 1$, partialing out the same fixed effects.

Table A.20, Column (1) shows the results for the baseline specification. See Columns (2) to (5) for alternative sets of controls, which do not qualitatively affect the results. The results show that weather shocks conducive to unrest are indeed strongly associated with unrest, consistent with the LASSO IV first stage. However, the effect of weather shocks on unrest is significantly smaller in prefectures that received more aid contracts in the past, suggesting that aid contract allocation contributes to future stability.

A potential concern with this exercise is that while weather shocks are exogenous, the existing aid stock is in part a function of past unrest. If future weather shocks are more conducive to unrest depending on higher levels of past unrest, β_2 could, for example, reflect the mitigating effect of past government responses to unrest rather than the mitigating effect of aid. To address this concern, I conduct a placebo check: Table A.21 tests whether local weather shocks are more conducive to unrest depending on past unrest in the prefecture. Reassuringly, as the coefficient on $ConduciveWeather_{p,t} \times Unrest_{p,t-1}$ shows, this is not the case. If anything, past unrest slightly heightens, rather than weakens, the effect of conducive weather on future unrest, supporting my interpretation.

In sum, the results show that the allocation of aid contracts to Chinese firms significantly contributes to future stability, arguably by increasing the employment of Chinese workers.

5. The Role of Domestic Policy in China’s Global Aid Allocation

The previous section established that the regime’s political need to address domestic unrest significantly influences its allocation of contracts for foreign aid projects to its firms, which in turn helps secure future stability. This section examines whether and how the regime’s domestic stability goal in turn influences the allocation of its foreign aid to other countries.

5.1. *Empirical Strategy*

It is not *ex ante* obvious that China’s political need to maintain domestic stability is a significant determinant of its foreign aid allocation to other countries. On one hand, the allocation of Chinese aid to specific countries in a given year could be fixed by the central government and primarily determined by foreign policy or other goals (see [Dreher et al., 2018](#)). In this case, given the findings in the previous section, the response to local unrest would only affect which firms receive a given set of contracts in that year. For example, the Chinese central government may decide to finance a project in Senegal in 2017 for reasons unrelated to domestic stability, and the distribution of unrest within China would only affect whether the contractor for the project comes from Shenzhen or from Guangzhou. On the other hand, if unrest in China affected how much aid other countries receive and when, this would imply that the regime’s domestic stability goal, rather than foreign policy or other goals alone, is a determinant of China’s global aid allocation.

To distinguish between these two possibilities, I study how the regime and its contractors interact in the aid allocation process. Qualitative evidence suggests that when there is unrest in a given prefecture, firms from those prefectures could lobby the governments of recipient

countries, along with the Chinese central government, to collaborate on aid projects.¹⁶ Firms tend to do this in countries with which they have prior connections.¹⁷ As explained in the Background section, since the launch of the “Go Out” policy in 2000, Chinese firms have specialized in different sets of countries to avoid competition with each other and exploit returns to scale (Zhang and Smith, 2017). The Chinese central government could then allocate financing to projects and firms that create jobs in prefectures experiencing unrest.

The prefecture-level site of unrest, and in turn which Chinese firms receive aid contracts to address it, could therefore affect which countries receive aid from China and when. For example, if firms from Shenzhen are primarily active in Senegal and firms from Guangzhou are primarily active in Cambodia, Senegal will receive comparatively more aid than Cambodia when there is more unrest in Shenzhen vs. in Guangzhou in a year.

To test whether the regime’s domestic stability goal is a significant determinant of its global aid allocation through this channel, I estimate the following specification at the country-year level. This specification tests whether a given country receives more Chinese aid projects when there is more labor unrest in Chinese prefectures with firms that have prior connections to the country:

$$Aid_{i,t} = \gamma Z_{i,t-1} + \mathbf{X}_{i,t-1}\Theta + \alpha_i + \delta_{rt} + \mu_{i,t}. \quad (3)$$

where index i denotes countries and t denotes years. The outcome variable, $Aid_{i,t}$, is the number of aid projects received by a country in a year. $\mathbf{X}_{i,t}$ is a vector of country-year level

¹⁶Interviews with bureaucrats and firms conducted by Zhang and Smith (2017) reveal that aid contractors often work as mediators between the Chinese government and aid recipient countries. MOFCOM itself has only a very limited presence in most low- and middle-income countries and typically relies on Chinese state-owned firms to identify potential projects.

¹⁷I take the existing connections between firms and countries as given. Anecdotally, key factors behind initial connections include relevant technology of SOEs, historical ties, and geographic advantages. For example, Guangdong has historically been a starting point of the Maritime Silk Road, fostering longstanding ties with African countries along this route.

controls (detailed below), α_i denotes country fixed effects, and $\delta_{r,t}$ denotes year fixed effects which are allowed to vary across recipient regions.¹⁸

The regressor of interest, $Z_{i,t-1}$, is the sum, across all Chinese prefectures, of the number of local unrest events in a prefecture at $t - 1$, interacted with the share of aid received by the country from firms in the prefecture up to $t - 1$ (existing country-prefecture connections):

$$Z_{i,t-1} = \sum_p (Unrest_{p,t-1} \cdot \omega_{i,p,t-1}), \quad (4)$$

where

$$\omega_{i,p,t-1} = \frac{\sum_{\tau=0}^{t-1} Aid_{i,p,\tau}}{\sum_{\tau=0}^{t-1} \sum_p Aid_{i,p,\tau}}. \quad (5)$$

The coefficient of interest is γ : If it is different from 0, then the distribution of unrest within China affects the allocation of Chinese aid to other countries in a given year. I use a panel of 107 low- and middle-income countries to implement the empirical strategy.

From an econometric perspective, $Z_{i,t-1}$ is effectively a shift-share instrument for $Aid_{i,t}$. It leverages two sources of variation. First, local unrest shocks in Chinese prefectures (the shifters) predict the allocation of aid contracts to firms based in those prefectures. Second, countries tend to receive more aid implemented by firms in prefectures with which they have existing connections (the shares). Hence, if $\gamma \neq 0$, variation in the distribution of local unrest across Chinese prefectures will generate variation in the amount and timing of Chinese aid received by other countries.

In shift-share instruments, the exogeneity of the regressor can come from either exogenous shifters (Borusyak, Hull and Jaravel, 2022) or shares (Goldsmith-Pinkham, Sorkin and Swift, 2020), conditional on controls. I follow Borusyak, Hull and Jaravel (2022) (BHJ) and assume that the shifters (unrest shocks) are conditionally orthogonal to the future amount of aid received by countries and other outcomes, allowing the shares (existing country-prefecture connections) to be endogenous. Since the shares sum up to 1, this specification isolates the

¹⁸The regions are East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa.

plausibly exogenous variation in the distribution of local unrest across Chinese prefecture within a given year (Borusyak, Hull and Jaravel, 2022).

Following BHJ’s state-of-the-art method, I reshape the data and estimate the specification at the prefecture-year level (shock level) rather than country-year level. The equation I estimate in practice is thus:

$$\tilde{Aid}_{p,t} = \gamma Unrest_{p,t-1} + X'_{p,t-1}\Theta + \alpha_p + \delta_{prov,t} + \zeta_p t + \epsilon_{p,t}. \quad (6)$$

The regression is analogous to Equation 1 in Section 4, but uses the reshaped data and is weighted using the BHJ weights, which account for countries’ exposure to the prefecture-year level unrest shocks. Prior to reshaping, the country-year level variables are residualized on the country fixed effects to account for the fact that some countries generally receive more aid and are more exposed to unrest in China, and on region-year fixed effects to account for regional macroeconomic developments that could be correlated with aid and unrest.¹⁹

Estimating the specification at the prefecture-year level allows me to additionally control for prefecture and province-year fixed effects and other controls, analogous to the analysis in Section 4. The distribution of local unrest in China in a given year is plausibly exogenous to recipient countries, conditional on controls and fixed effects, as established in Section 4. A second advantage of the BHJ method is that it uses correct statistical inference by allowing for clustering the standard errors at the shock level (Adão, Kolesár and Morales, 2019).

5.2. Results

Table 4 shows that the distribution of local unrest across Chinese prefectures within a given year indeed significantly influences the global allocation of China’s aid: On average, a one standard deviation increase in the number of unrest events in a prefecture is associated with

¹⁹I use a balanced sample of prefectures to avoid selection effects. Since the instrument is by construction missing for all years without existing connections due to a lack of prior aid projects, I restrict the sample to the years 2009 and onward. This maximizes the number of observations that can be included in the sample while keeping it balanced.

an 0.32 SD increase in the number of aid projects received by a country fully exposed to that prefecture, conditional on the baseline fixed effects and controls. The effect is statistically significant at the 1% level. Figure A.11 graphically illustrates this result. Table A.22 shows the analogue for the log financial value instead of the number of aid projects.

In other words, a country receives more aid projects following years during which the prefectures it is connected to experience more local unrest, relative to total aid and unrest in a given year. A back-of-the-envelope calculation shows that the average total number of yearly unrest events across China in 2009–2017 could lead to the re-allocation of up to 18% of the total amount of Chinese aid among recipient countries in a given year: there are 822 lagged unrest events across all prefectures in a year on average, which, multiplied by the coefficient of interest, correspond to 16.7 aid projects ($822 \cdot 0.0203 \approx 16.7$). There are 93 aid projects per year on average during this period and 16.7 is approximately 18% of 93.

This result implies that a significant share of China’s global aid allocation within a given year, through the role of its firms, is determined by China’s domestic political stability goal. In other words, the regime not only uses foreign policy to achieve domestic political goals, but these domestic goals also affect its foreign policy in the form of foreign aid.

Note that the year fixed effects net out the aggregate variation in total unrest experienced and total foreign aid given by China to all countries in a given year. For the sake of credible identification, my specification thus isolates the variation in the allocation of Chinese aid projects across countries resulting from the distribution of local unrest across Chinese prefectures within a given year. This is sufficient to establish that China’s domestic stability goal has a causal effect on its global aid allocation. Nevertheless, one might wonder how important the distribution of domestic unrest within a given year is in explaining China’s aid allocation compared to shifters of aggregate aid, including variation in total unrest over time (see Figure 1). To see this, note that the absolute value of the average change in the aggregate number of aid projects from year to year in 2009–2017 is 15.75, implying that the within-year allocation of aid projects explained by the distribution of unrest is significant

also compared to aggregate shifters of Chinese aid across years.

Finally, it is worth noting that the results in this section provide a first stage for an IV strategy to estimate the causal effects of Chinese aid on recipient country outcomes. Estimating the causal effects of aid on recipients is typically very challenging due to joint determination and reverse causality. The variation in the distribution of local unrest within China provides exogenous and transparent variation in the receipt of aid by other countries. Older working paper versions of this study illustrate the application of this instrument to political stability and economic outcomes in recipient countries. However, this analysis is outside of the scope of the current paper.

5.3. Robustness

Causal interpretation of the results discussed above relies on the exogeneity of shocks to local unrest in Chinese prefectures, conditional on the controls and fixed effects. This assumption is plausible with respect to recipient countries and supported by the extensive evidence presented in Section 4. Online [Appendix D](#) discusses further robustness checks.

6. Conclusion

This paper shows how domestic political considerations influence the foreign policy choices of autocratic regimes, by analyzing the case of Chinese foreign aid. Specifically, I show how the Chinese regime’s paramount domestic political stability goal is an influential determinant of its foreign aid. Using contractor-level data that allows me to unpack China’s internal aid allocation process, I establish this finding in two steps. First, I show how the regime uses foreign aid projects to help secure domestic social stability by allocating aid contracts to firms in areas experiencing local unrest. Second, I show how the regime’s domestic stability goal in turn influences a significant share of its global foreign aid allocation.

These findings have important implications. Autocrats’ global expansion is not exclusively driven by centrally mandated economic or foreign policy goals, as hypothesized by many

scholars, policymakers, and journalists. To understand autocrats’ global activities, it is thus important to consider the domestic political constraints and processes driving them.

It is also important to consider the extent to which the findings generalize to other emerging autocratic donors, such as Russia, Iran, and the United Arab Emirates. Causal evidence on the domestic political drivers of autocrats’ foreign aid is still scarce in many contexts. Moreover, the domestic political economics of autocracies likely affects foreign aid allocation and other aspects of foreign policy through channels not considered in this study. In particular, the roles played by firms and bureaucrats in the implementation of foreign policy are worthy of rigorous empirical investigation.

Given the scale of autocrats’ growing presence in developing countries and the hundreds of millions of lives possibly affected by the associated activities, these are first-order questions for future research. As this paper demonstrates, the use of granular micro data to dive deep into the domestic political processes behind foreign aid is a promising approach to make progress on this pressing research agenda.

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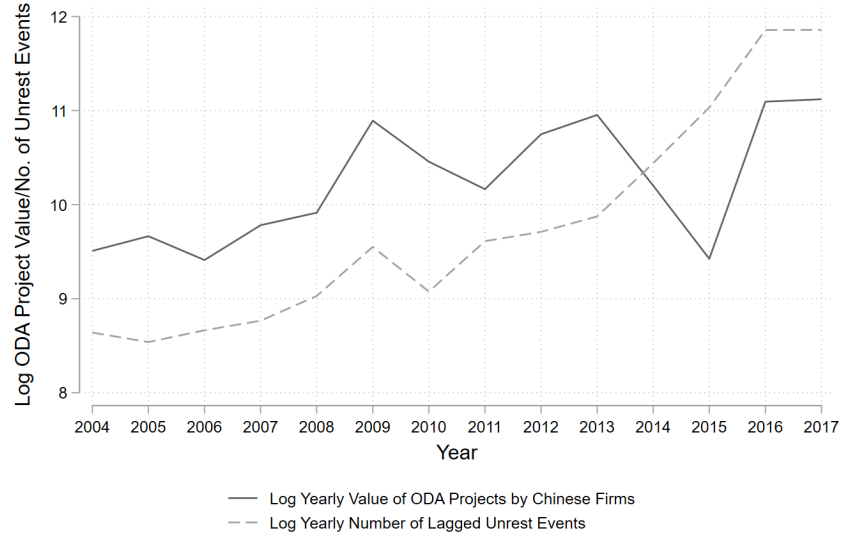
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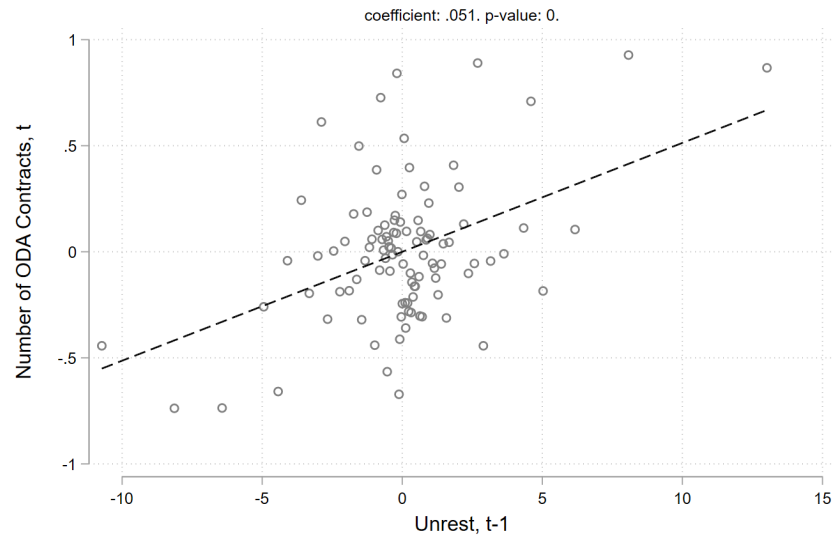
Figures and Tables

Figure 1: Chinese ODA and Domestic Unrest Over Time



Note: The solid line shows the logarithm of the total financial value of Chinese ODA projects (in 100k constant 2017 USD) contracted by Chinese firms in the sample in each year in 2004–2017. The dashed line shows the logarithm of the total number of labor unrest events across Chinese prefectures in the sample in each year, lagged by one year. The 2014/2015 period coincides with the Chinese anti-corruption campaign, which led to a temporary slowdown of China’s foreign aid program ([Zhang and Smith, 2017](#)). See Section 3 for a detailed description of the underlying data.

Figure 2: Effect of Local Unrest on ODA Contract Allocation to Chinese Firms, Binscatter



Note: The dashed line shows the line of fit from a regression of the number of Chinese ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects and for prefecture-specific linear time trends. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. The dots show mean residuals. See Section 3 for a description of the underlying data.

Table 1: Effect of Local Unrest on ODA Contract Allocation to Chinese Firms

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.0513*** (0.0114)	0.0620*** (0.0122)	0.0517*** (0.0117)	0.0546*** (0.0119)	0.0619*** (0.0123)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	658	658	658	658	658
Adjusted R Squared	0.613	0.618	0.612	0.618	0.618

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects and for prefecture-specific linear time trends, as well as the controls indicated in the table. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table 2: Effect of Local Unrest on ODA Contract Allocation, by Type of Firm

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1*Central SOE	0.0526*	0.0552*	0.0522*	0.0536*	0.0541*
	(0.0306)	(0.0310)	(0.0304)	(0.0310)	(0.0310)
Unrest, t-1*Local SOE	0.00249	0.00513	0.00212	0.00349	0.00400
	(0.0135)	(0.0133)	(0.0138)	(0.0133)	(0.0135)
Unrest, t-1*Other Firms	0.00959	0.0122	0.00922	0.0106	0.0111
	(0.0144)	(0.0143)	(0.0147)	(0.0143)	(0.0146)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	1358	1358	1358	1358	1358
Adjusted R Squared	0.170	0.169	0.169	0.169	0.167

Note: This table reports the coefficients for the regressions of the number of ODA project contracts allocated to firms of a given type (central SOE, local SOE, or other) in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, interacted with firm type dummies. The analysis controls for uninteracted firm type dummies, prefecture and province-year fixed effects, and prefecture-specific linear time trends, as well as the other controls indicated in the table. The unit of observation is a prefecture-firm type-year. The sample includes all prefecture-firm type combinations with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table 3: Effect of Local Unrest on Employment in Chinese Firms

	(1) Log Employment (Central SOE with ODA Contract)	(2) Log Employment (Central SOE without ODA Contract)	(3) Log Employment (Other Firms with ODA Contract)	(4) Log Employment (Other Firms without ODA Contract)
Unrest, t-1	0.0219** (0.00732)	-0.00297 (0.00341)	-0.00555 (0.0770)	-0.00213 (0.00473)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	219	2576	268	6827
Adjusted R Squared	0.783	0.833	0.623	0.745

Note: This table reports the coefficients for the regressions of the log number of workers employed by a given Chinese firm in a year on the lagged number of labor unrest events in the firm's prefecture and year, controlling for prefecture and province-year fixed effects, and prefecture-specific linear time trends. Column (1) includes central SOEs that had an ODA contract during the sample period, (2) includes central SOEs that are in the MOFCOM list of contractors but did not have an ODA contract during the sample period, (3) includes other firms that had an ODA contract during the sample period, and (4) includes other firms that are in the MOFCOM list of contractors but did not have an ODA contract during the sample period. The unit of observation is a firm-year. Standard errors are clustered at the prefecture level and reported in parentheses. The firm-level data on employment is from the 2007-2015 tax survey and only available for a subsample of firms. See Section 3 for a description of the underlying data.

Table 4: Effect of Unrest on Global ODA Allocation

	(1)	(2)	(3)	(4)	(5)
	# of ODA Projects	# of ODA Projects	# of ODA Projects	# of ODA Projects	# of ODA Projects
Unrest, t-1	0.0203*** (0.00489)	0.0202*** (0.00405)	0.0187*** (0.00434)	0.0223*** (0.00484)	0.0207*** (0.00459)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Region-Year FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	216	216	216	216	216
F-statistic	17.17	24.77	18.69	21.28	20.35

Note: This table reports the coefficients for the regressions of the number of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in year $t - 1$. The regressions are estimated at the shock level (prefecture-year), weighted by the country's exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to $t-1$. Country-year level variables are residualized on the country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends, as well as the other controls indicated in the table. The sample is a balanced panel of prefectures in 2009–2017 as described in Section 5.1. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the data.

ONLINE APPENDIX (NOT FOR PUBLICATION)

Appendix A. Additional Background

A.1. Labor Unrest in China

Despite the autocratic nature of China’s regime, labor unrest (including collective worker actions such as strikes) is common throughout the country. [Lorentzen \(2013\)](#) and others argue that the Chinese central government is primarily concerned about preserving political stability but not local strikes *per se*, insofar as they do not develop into larger, organized movements. Rather, local strikes serve as a signal to the central government of where it needs to allocate public resources to prevent local grievances from growing into broader organized movements that could threaten political stability. Furthermore, in contrast to firms and local governments, the central government has welcomed a certain degree of upward pressure on wages since the 2000s, to support the re-balancing of the Chinese economy from an investment-led growth model to a consumption-led growth model ([Zhang, 2019](#)). As a consequence, the central government has mostly tolerated local labor unrest and allowed reporting on them during the study period.

Whereas in the 1990s Chinese unrest was mainly caused by the restructuring of SOEs, since the 2000s it has shifted to the private sector ([Elfstrom and Kuruvilla, 2014](#)). The main reasons for labor unrest include local issues such as factory closures and relocations, withholding of wages, and environmental and safety violations ([Li, Friedman and Ren, 2016](#)). The root causes for the increase in labor unrest since 2003 include several domestic factors. First, rising inequality and the re-balancing of the Chinese economy have fueled worker demands. At the same time, a growing migrant labor shortage in the low-skill sector, due to China’s birth control policy, rising education levels, and the Hukou system, have improved workers’ bargaining position ([Friedman and Kuruvilla, 2015](#)). Second, the Chinese government has adopted various changes to its labor laws since 2008, which empowered workers to increasingly voice their demands ([Gallagher, 2012](#)). Local NGO engagement

and domestic policy changes in agriculture have also contributed to unrest (Friedman and Kuruvilla, 2015). Finally, negative export shocks from developed countries have been shown to trigger some unrest (Campante, Chor and Li, 2023).

Responses by the Chinese state to local unrest have included surveillance (Beraja et al., 2023), repression, wage concessions, welfare payments (Pan, 2020), legal reform, stimulus through domestic public infrastructure construction (Cong et al., 2019), SOE employment (Wen, forthcoming), and increasing foreign aid to create demand for Chinese firms and workers (Copper, 2016). See Li, Friedman and Ren (2016) for in-depth case studies of labor unrest events in China. Table A.1 provides examples of unrest events in the data.

A.2. An Example

Consider the case of Dalian International Economic and Technical Cooperation Group (DIETCG), a state-owned aid contractor. A wave of unrest in Dalian over labor conditions during the global financial crisis in 2008 led to economic concessions by the local government (Chen, 2010). At the same time, DIETCG wrote in its 2008 annual report that “To alleviate domestic employment pressure, our country has pushed for the strategy of ‘going out’” (Dalian International Economic and Technical Cooperation Group Co. Ltd., 2009). In 2009, the company implemented a record number of MOFCOM-funded construction projects in Equatorial Guinea and other African countries in which it had long-standing relations with the respective governments. These projects followed a non-transparent bidding process and led to large imports of Chinese workers and goods (Esteban, 2009). While no disaggregated data for specific projects is available, the number of Chinese workers in the small country was estimated to be over 3,000 in 2008 (pg. 675–676 Esteban, 2009):

“The growing presence of Chinese companies in Equatorial Guinea – such as China Dalian International, the China Roads and Bridges Corporation, Gezhouba, Senohydro, the Heilongjiang East Co., Huawei, Zhongxin and CENEC, among others – does not bring new job opportunities for the local population, but instead a stunning increase in the number of Chinese workers to over 3,000 in February 2008. Unlike those from other countries, Chinese companies, especially construction firms, bring the bulk of their labour force including non-skilled labour from their country of origin. The share

of local workforce for Chinese construction firms in Equatorial Guinea is particularly low even for Chinese standards in Africa, identified by other studies as between 5 and 15 per cent.”

A.3. Definitions and Types of Chinese Development Finance

This paper uses the term *development finance* to include any bilateral official finance between the government entities of China and other low- and middle-income countries. This definition does not include foreign direct investment (FDI) or international trade.

Chinese development finance can be categorized into two categories: ODA (Official Development Assistance) and OOF (Other Official Finance). ODA-like finance is concessional and meets the conventional notion of Western foreign aid, including grants and concessional loans. I refer to ODA-like finance as *aid*. OOF-like finance is less concessional, e.g., loans at commercial rates. However, note that in contrast to most Western donor countries, China is not in the OECD-Development Assistance Committee (OECD-DAC) and does not explicitly distinguish between ODA and OOF (Bräutigam, 2011a). The projects in my sample are classified as ODA-like or OOF-like by AidData. I also refer to projects classified by AidData as “Vague” as *aid* or *ODA* for ease of exposition. All aid projects in my sample classified as ODA or “Vague” have a development intent. The inclusion of “Vague” projects supports statistical power but does not qualitatively affect the main results.

Appendix B. Data Appendix

In Section 4, the main dataset is a prefecture-year level panel dataset based on administrative data on Chinese firms and prefectures, unofficial data on Chinese aid projects, and data on unrest in China. In Section 5, the main dataset is a country-year level panel dataset based on various sources, along with data from the prefecture-year panel aggregated to the country-year level, as described in the main text. This section provides additional details on these datasets and their construction.

B.1. Aid Project Data

The starting point of the dataset is data on Chinese development finance projects from AidData’s Geocoded Global Chinese Official Finance Database Version 2.0 (Custer et al., 2021; Dreher et al., 2022).²⁰ The Chinese government does not provide disaggregated data on its foreign aid and other development finance.

The comprehensive AidData dataset includes the known universe of Chinese projects in low- and middle-income countries from 2000–2017 that were financed by official grants and loans from Chinese government institutions. It uses the Tracking Underreported Financial Flows (TUFF) methodology, which relies on tens of thousands of government reports, news articles, policy documents, and other sources to ensure comprehensive coverage and reduce misreporting (Custer et al., 2021). Details on the scope and methodology of the data can be found at <https://www.aiddata.org/methods/tracking-underreported-financial-flows>.

The data include the year of commitment, financial value, recipient country, type of finance, sector, funding agency, implementing agency, and a short description for each project, among other information. I include all projects from the database that were financed by a Chinese government agency or policy bank, involve a Chinese private or state-owned contractor based in China, are in a low- or middle-income country according to the World Bank, have not been canceled or suspended, and are recommended by AidData for research.²¹

I identify 3308 project-firm combinations (2065 ODA-like and 1243 OOF-like projects) in the original AidData 2.0 dataset that fit these criteria. During the matching process described in Subsection B.2 below, I drop project-firm combinations that I find to be

²⁰I do not use AidData 3.0, covering more years and projects than AidData 2.0, as it was released after the completion of the data collection and analysis conducted for this paper.

²¹I focus on infrastructure aid projects contracted by Chinese construction companies, which are included in the MOFCOM data described further below. These projects constitute most of the Chinese aid in terms of financial value. Other aid often does not involve contractors (e.g., stipends) or is supplied by foreign firms (e.g., SOEs in recipient countries).

implemented by firms not located in China, those that are not implemented by firms related to (infrastructure) construction, and those that cannot be linked with a subsidiary-level firm in the Chinese administrative records described below.

The resulting dataset includes 2155 projects (1324 ODA-like and 831 OOF-like projects) in 117 countries committed between 2000 and 2017. 61% of the projects are classified as ODA-like or Vague and include grants, concessional loans, or other financing. I focus on these projects and refer to them as “aid.” The remaining projects, which are included for comparison, are classified as OOF-like and include non-concessional development finance such as loans at commercial interest rates.

The average project is worth 118 million USD (47 million USD for ODA-like projects and 220 million USD for OOF-like projects, all in constant 2017 USD). The majority of ODA- and OOF-like projects implemented by Chinese firms in terms of financial value are in the form of hard infrastructure, including power plants, transmission lines, railroads, highways, ports, telecommunication networks, schools, and hospitals. Table A.2 lists the largest aid projects in the sample (see Table A.3 for the largest OOF projects).

The largest share of projects goes to Asia (49%) and Africa (34%), with the remaining projects going to North and South America (7%), the Middle East (4%), and Oceania (1%). Figure A.2 shows the global distribution of ODA projects in the sample (see Figure A.3 for the distribution of OOF projects).

B.2. Contractor-level Data

Panel of contractors. To study the allocation of these projects to domestic firms and to link them to subnational variation in domestic unrest, I identify the Chinese contractor of each project in my sample whenever possible.

While AidData provides granular and comprehensive data on China’s aid projects, including the names of firms involved in their implementation, it is not sufficient for the purposes of this paper. Specifically, the firm names included in the AidData datasets are typically large

conglomerates with multiple subsidiaries across China.²² This information is insufficient to link firms to specific locations in China and to link aid projects with administrative firm-level data, which is at the subsidiary level. To address this challenge, I systematically try to identify the subsidiary of the conglomerate that implemented each project. The process is described in the following.

The starting point of the firm-year level dataset is an official but – to the best of my knowledge – previously unused list of all potential Chinese infrastructure aid contractors from the Chinese Ministry of Commerce (MOFCOM). It contains both the English and Chinese names of all Chinese firms licensed by MOFCOM to bid on overseas construction projects, as of 2017. The list was extracted from the MOFCOM website <http://xzsx.mofcom.gov.cn:80/xzsp/advSearch.jhtml> in June 2020. Importantly, the list is at the same level of aggregation as other Chinese administrative data.

I minimally clean the data by removing duplicate entries by name and entries that clearly do not constitute real firm names. I next obtain data on the basic characteristics of these firms, including their locations and current as well as previous shareholders from the Chinese credit registry. The data were provided by [Liu et al. \(2022\)](#) in October 2023, who had scraped the data from the public Tianyancha website. [Liu et al. \(2022\)](#) also provided data on the ultimate owner of each company, which they determined from the Tianyancha ownership data. Tianyancha is a private company that collects business registration information for the universe of Chinese firms in the last four decades. More than 95% of all firms from the MOFCOM list can be matched based on firm name. The resulting list includes 4545 construction firms eligible to bid on Chinese projects.

I then assign the projects from the AidData 2.0 database to a contractor in the MOFCOM database whenever possible. I proceed as follows. First, I use the business registration data to identify all current and past parent companies of all firms in the MOFCOM list.²³

²²This is the case for both AidData 2.0 and 3.0.

²³I define a parent company as a shareholder with at least 50% ownership.

Second, I manually match the firms in the AidData database with the list of MOFCOM firms and their parent companies. I use a combination of fuzzy matching based on names and additional sources, including company websites (all sources are documented in the replication package). Third, for matched aid projects that are implemented by parent companies (i.e., those with subsidiaries in the MOFCOM list), I conducted additional research to determine which subsidiary implemented the project. Together with a team of research assistants, we systematically searched the hundreds of websites of the subsidiaries in the MOFCOM list of firms and other online sources to identify the implementing subsidiaries. In addition, we manually verified all projects implemented by firms in Beijing and large conglomerates.²⁴ All details and sources are documented in the replication package. Finally, as mentioned earlier, I exclude from the sample all projects that were not implemented by a construction company (such as medical and IT companies), were based outside of China, or cannot otherwise be linked to a firm in the MOFCOM list. If the project is not excluded and the contractor listed in AidData appears in the MOFCOM list but another local subsidiary cannot be clearly determined, I use the contractor information originally provided by AidData.

The result is a panel of the quasi-universe of Chinese firms licensed by MOFCOM to contract overseas infrastructure projects. I aggregate the data to the prefecture-year level for most specifications. The main outcome variables are the number and $\log(1 + \text{financial value})$ of aid contracts allocated to firms in a given prefecture and year. The number of contracts is the preferred outcome variable, as it is less likely to suffer from measurement error than the financial value, which is missing for 13% of all projects; this is standard in the literature (e.g., [Dreher et al., 2021](#)). I calculate the financial value of a contract assigned to a firm in a year as the financial value of the entire project committed in that year, divided by the number of Chinese firms involved in the project. I do not observe the exact payments made to each firm involved in the contract or subcontracting.

²⁴Firms in Beijing are often corporate headquarters and not where the inputs for aid projects are produced. They are thus unlikely to be the aid contractors themselves.

For additional analyses, I further link the firm panel to data from the Chinese tax surveys to calculate firm employment, as well as other datasets such as customs records and domestic procurement data for additional analyses. I describe these additional datasets in the subsection below.

Tax survey. The *National Tax Survey Database* (NTSD) contains information on firms’ financials, tax payments, employment, and other variables from 2007 to 2015. The survey is conducted annually by the State Administration of Taxation of China and the Ministry of Finance of China (SAT-MOF). It surveys all large firms as well as a stratified random sample of smaller firms. The database is used by the Chinese government to evaluate the impacts of tax policies such as the “Golden Tax Project.” As [Liu and Mao \(2019\)](#) argue, various checks and balances make misreporting by firms unlikely, and the data are also verified by local tax agencies. The NTSD is unique in that it is the only firm-level database that contains information on both Chinese firms’ financial values and other variables such as employment, covers all sectors, and covers firms of all sizes.²⁵

Following [Liu and Mao \(2019\)](#), I set as missing entries with non-positive values in employment and trim the top 1% and bottom 1% percentiles of all entries in terms of employment in the data. I link the NTSD data with my sample using a combination of numerical firm identifiers from the business registration data, firm names, and home prefectures. The resulting sample contains data on firm employment from the tax survey for 2815 firms. This is a subsample of all firms because not all firms are included in the survey.

Domestic procurement. The data on Chinese government procurement used in

²⁵The other firm-level dataset commonly used by economists is the Annual Survey of Industrial Firms conducted by the National Bureau of Statistics of China. In contrast to the NTSD, ASIF contains only large firms in the manufacturing sector and is known to suffer from reporting bias ([Brandt, Van Biesebroeck and Zhang, 2014](#)).

Tables A.18 and A.19 was scraped from the Chinese Government Procurement website <https://www.ccg.gov.cn/> in January 2024. It contains text on all successful bids from 2013 to 2019. I assign a procurement contract to a firm in my sample if its name appears in the bid description. Since the description is unstructured text, I extracted the financial values of the procurement contracts using ChatGPT. I remove clearly implausible data entries (e.g., values larger than total Chinese GDP) and trim the value of procurement contracts at the top 1% and bottom 1% percentiles.

Annual reports. The data on word counts in annual reports of Chinese listed firms used in Figure A.9 is from [Mueller, Wen and Wu \(2023\)](#).

The resulting firm-year panel includes 4545 firms, of which 1182 are central SOEs and their subsidiaries.²⁶ 420 firms supplied Chinese aid projects at least once during my sample period, of which 231 are central SOEs and their subsidiaries. Table A.4 provides firm-level descriptive statistics. The average firm was awarded 0.02 aid contracts worth 0.74 million USD per year (0.27 projects worth 10.88 million USD, conditional on getting at least one contract during the sample period), and has 1195 employees. The 4545 firms are distributed across 235 Chinese prefectures.

B.3. Prefecture-level Data

Unrest data. The main explanatory variable is the number of labor unrest events in a given prefecture and year. To construct this variable, I combine data on strikes and worker protests across China from two sources unaffiliated with the Chinese government: *China Strikes* ([Elfstrom, 2017](#)), covering 2003 to 2011, and *China Labour Bulletin* (CLB) ([China](#)

²⁶Other firms include private firms and (former) local SOEs. I exclude joint ventures, collective firms, and foreign firms, which constitute only a small fraction of contractors.

[Labour Bulletin](#), 2019), covering 2012 to 2019.²⁷ The data are crowd-sourced from worker reports as well as a plethora of traditional media and online sources, and are often verified by the authors of the data. For each unrest event, the data include its date, prefecture, sector, and a short description. For example, the data tell us that on November 23, 2008, shipbuilding workers in Dalian detained their boss over wage arrears. Information on the number of participants is available for a limited subset of events.²⁸

There are 12625 unrest events during 2003–2019 reported in the original data. Figure [A.4](#) shows a map of the average unrest intensity for each prefecture. It exhibits substantial variation in the intensity of unrest events: while unrest takes place in all of China’s densely populated regions, the highest number of unrest events in a year took place in Shenzhen, Dongguan, Beijing, Guangzhou and Chengdu. The majority of unrest events were related to wage arrears in private firms in the manufacturing, transport, and construction sectors. Note that most unrest events in the sample took place at aid-unrelated firms, since the aid contractors make up only a small subset of all Chinese firms.

It is important to consider the quality of the unrest data in light of potential misreporting and censorship ([King, Pan and Roberts, 2013](#)). I believe the data are appropriate for the purposes of this paper for several reasons. First, the datasets have been verified and used by several prominent economists and news outlets (e.g., [Qin, Strömberg and Wu, 2019](#);

²⁷I thank Manfred Elfstrom for providing the *China Strikes* data and Aidan Chau for help with the CLB data. The CLB data follow similar scope and method as *China Strikes*. See [Campante, Chor and Li \(2023\)](#) and [Qin, Strömberg and Wu \(2019\)](#) for a description of the CLB data.

²⁸The unrest events were geocoded by the original authors. However, the location data in the CLB data originally provided to me sometimes lacked information or appeared to be coded incorrectly (e.g., the Chinese provinces Shanxi and Shaanxi were confused). I completed the missing location data using regular expressions and checks, which I shared and verified with the CLB team.

Campante, Chor and Li, 2023). Second, the Chinese state generally tolerates reporting on local labor strikes, arguably precisely because local strikes provide information to the central government on where it needs to allocate resources to secure political stability (Lorentzen, 2014; Campante, Chor and Li, 2023; Beraja et al., 2023). Third, as Campante, Chor and Li (2023) show, trends in the *CLB* data are highly correlated with official records on the number of labor dispute cases submitted to the government for mediation or arbitration. Fourth, I include prefecture fixed effects, province-year fixed effects, and prefecture-specific trends in my preferred specification, to capture classical measurement error and local trends in reporting over time. Finally, the results are robust to instrumenting for unrest using shocks that are outside the control of the Chinese authorities (see Section 4).

I complement my dataset with several other prefecture-year level variables for complementary analyses, which I describe in the subsection below.

China City Statistical Yearbooks. I use data on several prefecture-year level outcome and control variables from the China City Statistical Yearbooks (China Statistics Press, 2020), including GDP, GDP growth, population, and local government expenditures and income. The China City Statistical Yearbooks data are based on official statistics by the Chinese government. Since the data includes some obvious data entry errors, I remove implausible values from the data, following standard practice in the literature.

Weather. The weather data used to construct the LASSO-IV in Table A.10 comes from the National Oceanic and Atmospheric Administration (NOAA) and was originally collected by the World Meteorological Organization (WMO). The data is originally reported at the weather station-day level. I calculate a prefecture-day panel by assigning each weather station to the nearest prefecture in my sample. I use the same 18 variables as Beraja et al. (2023), including temperature bins, precipitation, fog, rain, hail, thunder, maximum wind speed, visibility, etc. Following Beraja et al. (2023), I impute missing weather data from

the nearest weather station or data from the following day at the same station (less than 1% of observations).

Chinese exports. The Chinese Customs Trade Statistics (CCTS) by the Chinese Customs Office provides transaction-level information on Chinese exports and imports during 2003 to 2015 (see [Campante, Chor and Li, 2023](#)). I aggregate the data to calculate exports at the prefecture level for the analysis in Table [A.24](#).

I combine the data described above with the firm-level data described earlier to construct a prefecture-year panel. The panel includes 235 prefectures. Table [A.5](#) provides prefecture-level descriptive statistics for the years used in the main analysis, 2004–2017. The average prefecture is awarded 0.36 aid contracts worth 14.3 million USD per year (1.16 projects worth 44.95 million USD, conditional on getting at least one contract during the sample period) and has 2.34 labor unrest events per year on average. I harmonize all prefecture-level variables to 2003 prefecture borders.²⁹

B.4. Recipient Country Data

Section [5](#) analyzes the global allocation of Chinese aid. I aggregate parts of the data described above to the country-year level for this purpose. To construct country-year level controls and placebo outcomes, I also use data on population, OECD-DAC aid receipt and FDI from the World Development Indicators ([World Bank, 2022](#)) as well as bilateral trade data from the BACI database ([Gaulier and Zignago, 2010](#)). Table [A.6](#) provides descriptive statistics for the country-year level variables for the years used in the country-level analysis, 2009–2017. Each

²⁹I manually create a crosswalk to merge prefectures across different datasets using names, GB codes and coordinates. I combine prefectures that were part of larger prefectures in 2003 or in other datasets into their largest common unit. Depending on the variables, I take totals or population-weighted averages to aggregate the data to these units.

country on average received 0.87 aid projects per year. Ethiopia, Iran and Sri Lanka were the largest aid recipients in this period.

Appendix C. Prefecture-level Analysis: More Robustness

I here discuss further robustness checks related to the analysis of aid contract allocation to firms in Chinese prefectures from Section 4.

Alternative samples and fixed effects. The baseline sample includes all prefectures with firms that contracted at least one aid project in the data. Table A.15 shows the main result for the sample including all 235 Chinese prefectures with a firm in the MOFCOM list. The coefficients are mechanically smaller, but remain statistically significant and robust to controls. Table A.16 shows the main specification for different sets of fixed effects (prefecture and year fixed effects, with and without province-year fixed effects and/or prefecture-specific trends). The main coefficient is slightly larger when all fixed effects are included, and smaller and statistically insignificant without prefecture-specific trends, but consistent in sign across specifications.

Treatment effect heterogeneity. The recent econometrics literature has identified potential issues with heterogeneous treatment effects in two-way fixed effects specifications. Approaches to address this challenge have focused on staggered difference-in-differences specifications (for an overview see Roth et al., 2023). In contrast, Equation 1 is a distributed lag model with continuous, repeated treatments. To the best of my knowledge, at the time of writing, no estimator has been published that addresses this specific case. Nevertheless, to address such concerns, I assess the robustness of my results using the treatment effect heterogeneity robust estimator by Callaway and Sant’Anna (2021). In order to implement the estimator, I replace the continuous $Unrest_{p,t}$ variable in Equation 1 with a binary variable that equals 1 in the year the number of unrest events in a prefecture-year is above the 90th

percentile of the prefecture’s unrest distribution over time and thereafter, and 0 otherwise. I then re-estimate specification 1 with this binary treatment in a sample of all prefectures with at least one firm in the MOFCOM list, using both OLS and the Callaway and Sant’Anna (2021) estimator.

As Table A.17 shows, the estimated effect of unrest on aid contract allocation remains statistically significant using the Callaway and Sant’Anna (2021) estimator. It is larger than the OLS estimator, suggesting that the baseline OLS estimates of Equation 1 presented in the main text, if anything, yield conservative estimates of the effect of local unrest on aid contract allocation.

Spillovers. To address the potential concern that the effects are confounded by local spillovers across prefectures, Table A.14, Column (2) controls for lagged unrest in neighboring prefectures. Unrest in neighboring prefectures is not significantly correlated with aid contract allocation to firms in a given prefecture, and it does not qualitatively affect the estimated relationship between local unrest and aid contract allocation in the prefecture.

Excluding specific prefectures and years. Figures A.7 and A.8 show the coefficients for the preferred specification, dropping each year and prefecture one-by-one, but are analogous to the main specification otherwise. The figures show that the main result is not driven by any particular prefecture or year.

Appendix D. Country-level Analysis: More Robustness

I here discuss further robustness checks related to the analysis of China’s global aid allocation in response to domestic unrest from Section 5.³⁰

³⁰Note that the sample in this section is not large enough to support the LASSO IV strategy from Section 4.3. As explained earlier, the sample here is smaller since the explanatory variable relies on existing country-prefecture connections and is missing otherwise.

Leads and lags. Table A.23 shows the coefficients for different leads and lags of local unrest. Consistent with the results presented in Section 4 (although less precisely estimated), unrest is a significant predictor of aid one year later. Reassuringly, aid at t does not significantly predict future unrest, mitigating concerns related to reverse causality.

Baseline controls. Table 4 Columns (2) to (5) show, again consistently with Section 4, that the estimates are qualitatively unaffected by controlling for prefecture population, GDP, and government revenue weighted by country-prefecture connections.

Further controls. A remaining potential concern is trade shocks common to specific Chinese prefectures and recipient countries. For example, the estimates are biased upward if a negative prefecture-specific export demand shock is associated with an increase in unrest in a prefecture and an increase in the demand for Chinese aid by countries more connected to that prefecture, relative to total exports and unrest in a given year. To address this possibility, in Table A.24, Column (1), I control for lagged prefecture exports (weighted by the lagged country-prefecture connections analogous to weighted unrest). Reassuringly, the coefficient of interest on unrest is robust to this control.³¹

Falsification tests. Table A.24 Columns (2) to (4) present falsification tests. I regress imports from China, FDI inflow, and OECD-DAC aid received by a country on lagged weighted unrest. Reassuringly, lagged unrest predicts at most small changes in these variables. These tests address the possibility that the correlation between unrest in Chinese prefectures and connected aid recipient countries is driven by other economic flows.

³¹The coefficient of interest on unrest is larger than the coefficient from the baseline specification, which is based on a slightly different sample because the prefecture-level Chinese trade data is only available until 2015.

Outliers. Figure A.11 shows the residual plot. It demonstrates that no particular prefecture or year is driving the results. However, some prefectures and years visually appear to be outliers. Figure A.12 shows that the estimated coefficient of interest is unaffected by dropping these observations.

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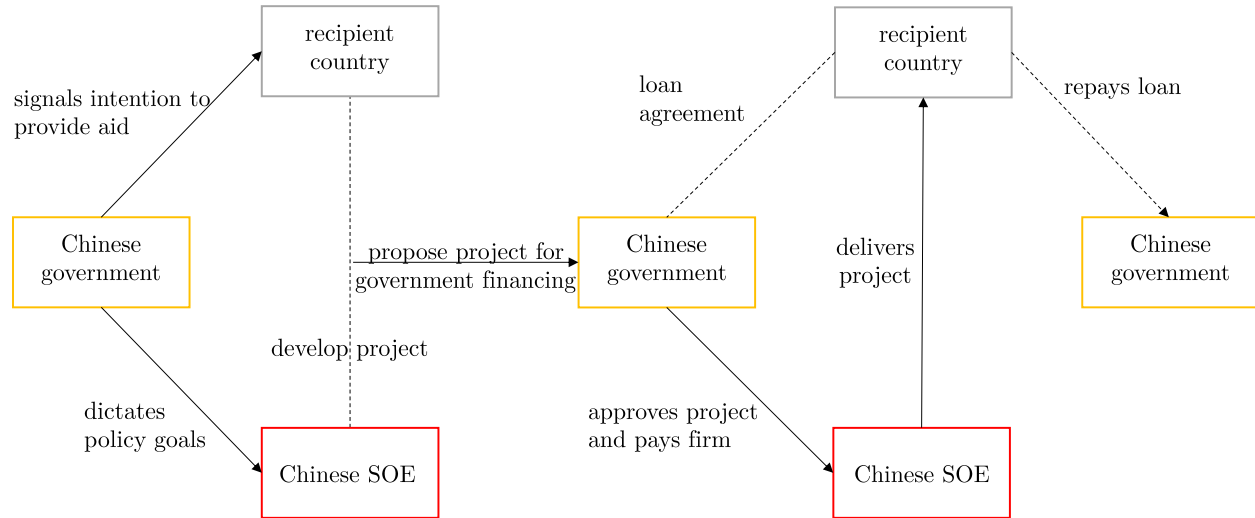
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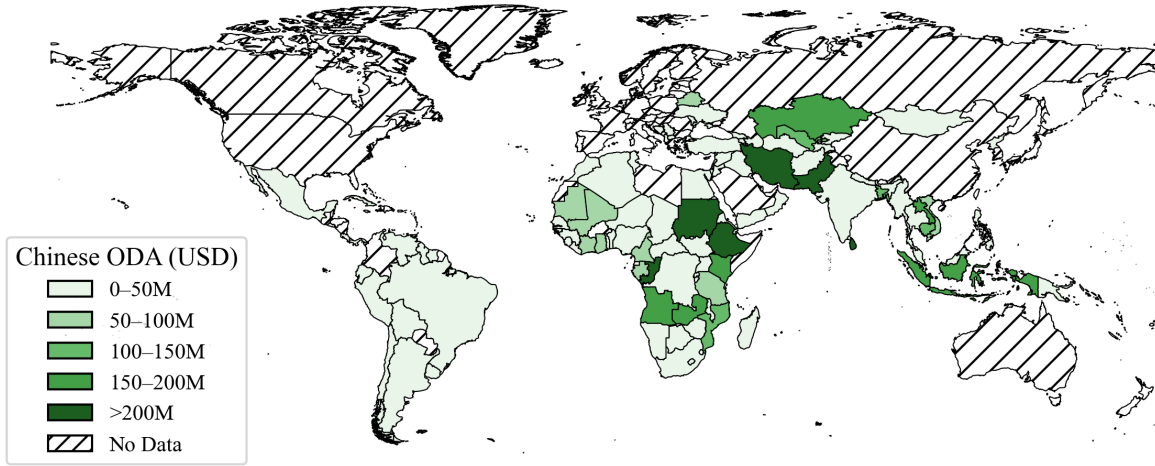
Online Appendix Figures and Tables

Figure A.1: The Chinese Foreign Aid Project Allocation Process (Simplified)



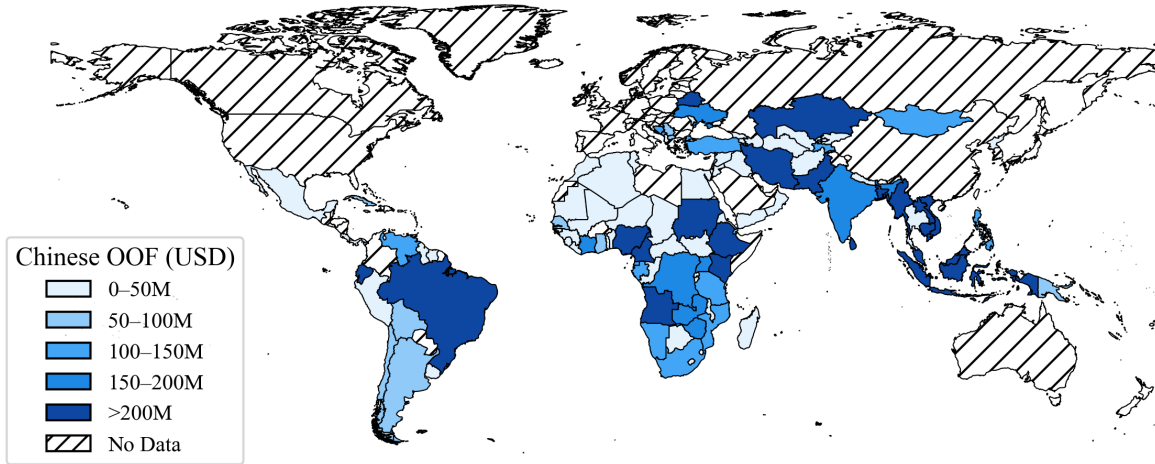
Note: This figure schematically illustrates the Chinese foreign aid project allocation process. Source: Author's illustration, based on Bräutigam (2011b), Zhang and Smith (2017) and Horn, Reinhart and Trebesch (2021).

Figure A.2: Global Distribution of Chinese ODA Contracted by Chinese Firms



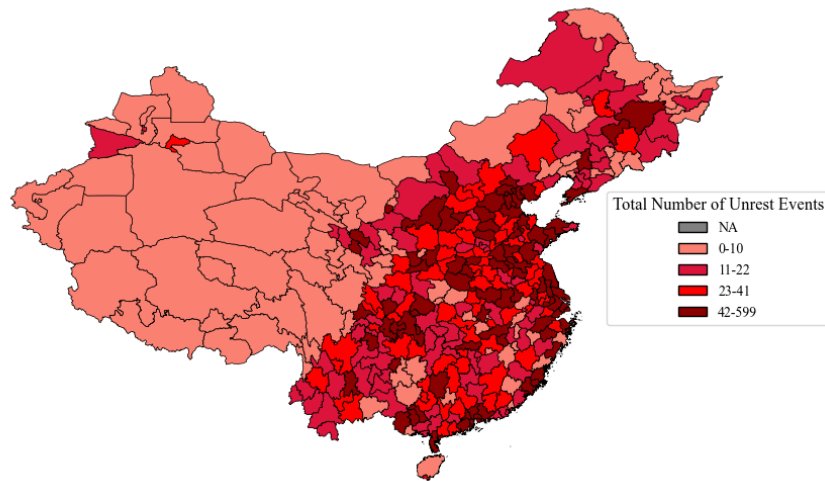
Note: This figure shows the total financial value of Chinese ODA projects committed to low- and middle-income countries and contracted by Chinese firms in the sample in 2000–2017. Financial amounts are in constant 2017 USD. Source: author’s illustration based on data described in Section 3.

Figure A.3: Global Distribution of Chinese OOF Contracted by Chinese Firms



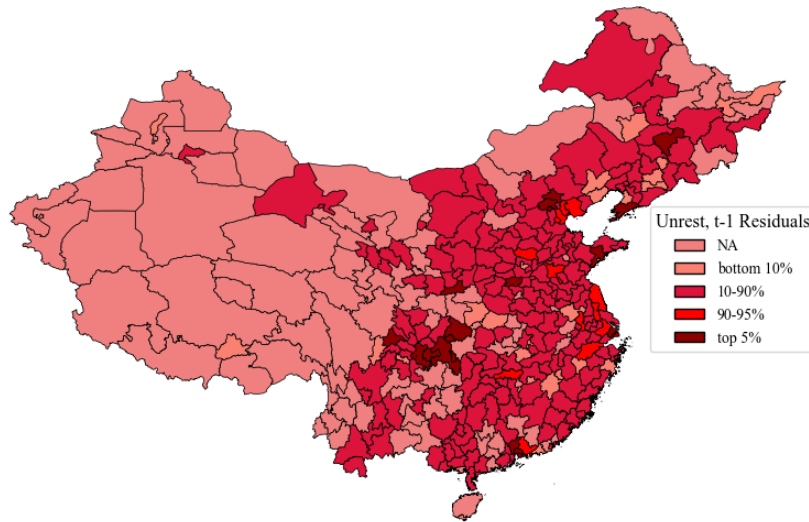
Note: This figure shows the total financial value of Chinese OOF projects committed to low- and middle-income countries and contracted by Chinese firms in the sample in 2000–2017. Financial amounts are in constant 2017 USD. Source: Author’s illustration based on the data described in Section 3.

Figure A.4: Geographical Distribution of Unrest Events



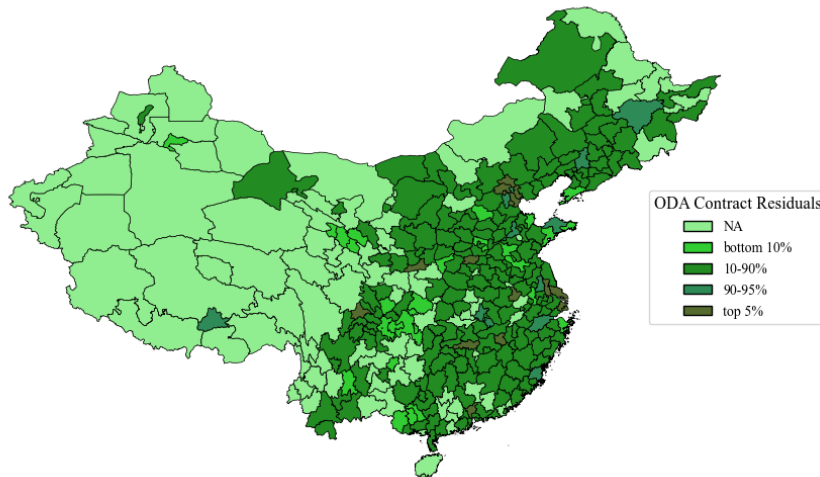
Note: This map shows the number of labor unrest events in each prefecture covered by the data sample in 2003–2019. Source: Author’s illustration, based on data from the *China Strikes Crowdmap* and *China Labour Bulletin*. See Section 3 for a detailed description of the underlying data.

Figure A.5: Geographical Distribution of Lagged Unrest Events in 2017, Residualized



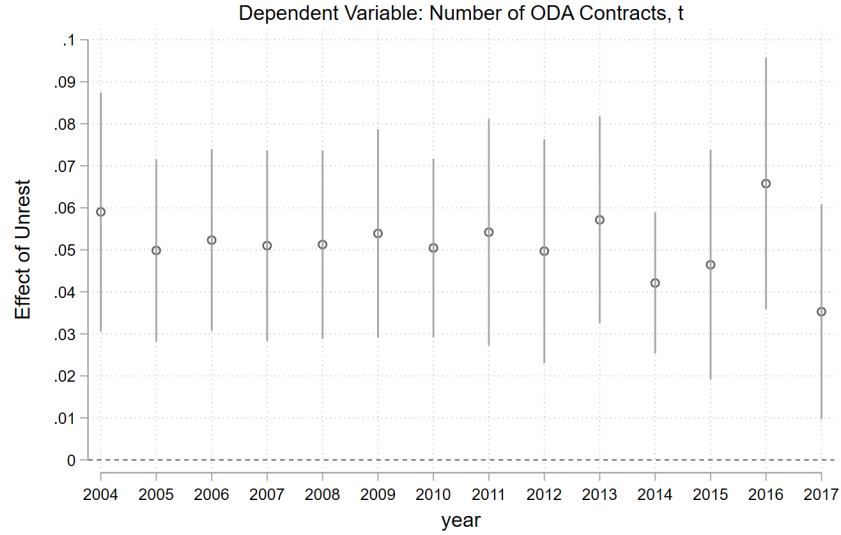
Note: This map shows the lagged number of labor unrest events in each prefecture covered by the data sample in 2017, residualized on prefecture fixed effects. Source: Author's illustration based on data from the *China Strikes Crowdmap* and *China Labour Bulletin*. See Section 3 for a detailed description of the underlying data.

Figure A.6: Geographical Distribution of ODA Contracts in 2017, Residualized



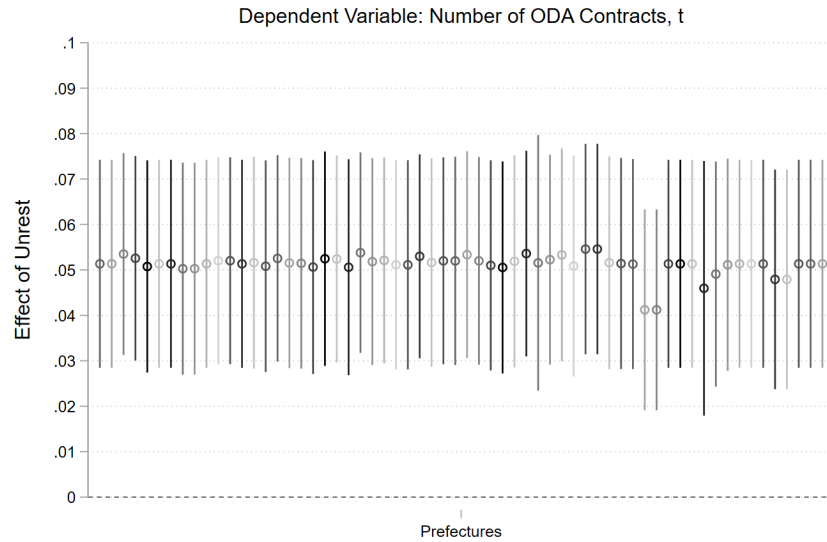
Note: This map shows the number of Chinese ODA contracts allocated to firms in each prefecture covered by the data sample in 2017, residualized on prefecture fixed effects. Source: Author's illustration based on data from the *China Strikes Crowdmap* and *China Labour Bulletin*. See Section 3 for a detailed description of the underlying data.

Figure A.7: Effect of Local Unrest on ODA Contract Allocation, Dropping Years



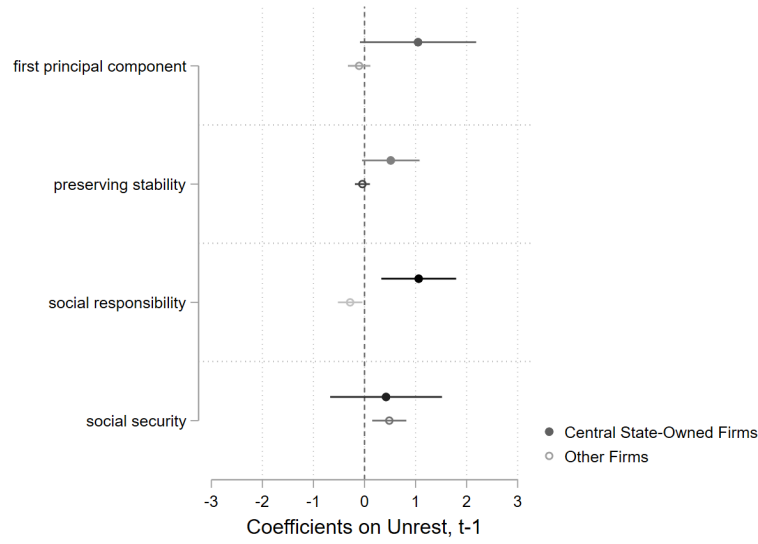
Note: The dots show the coefficients from regressions of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the number of labor unrest events in that prefecture in the previous year, controlling for prefecture and province-year fixed effects and prefecture-specific linear time trends. Each regression drops one of the years from the baseline sample. The vertical lines show 95% confidence intervals. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level. Source: Author's illustration based on the data described in Section 3.

Figure A.8: Effect of Local Unrest on ODA Contract Allocation, Dropping Prefectures



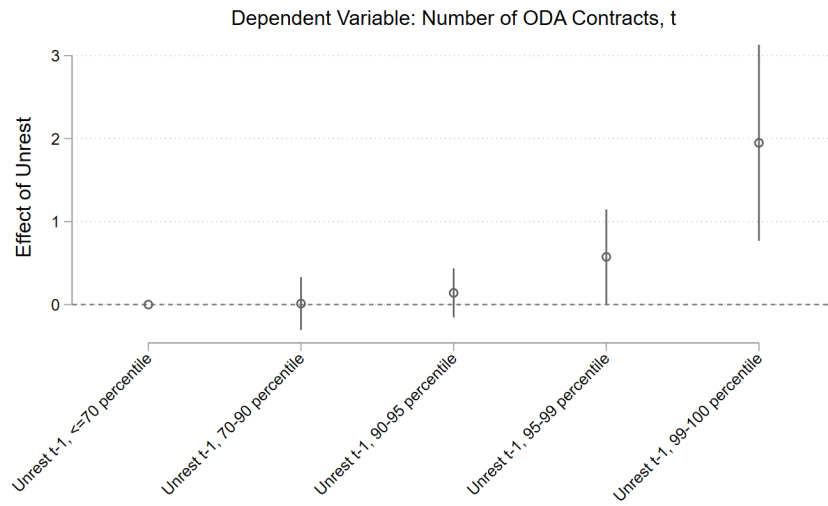
Note: The dots show the coefficients from regressions of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the number of labor unrest events in that prefecture in the previous year, controlling for prefecture and province-year fixed effects as well as prefecture-specific linear time trends. Each regression drops one of the prefectures from the baseline sample. The vertical lines show 95% confidence intervals. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level. Source: Author's illustration based on the data described in Section 3.

Figure A.9: Effect of Local Unrest on Keywords in Firms' Annual Reports



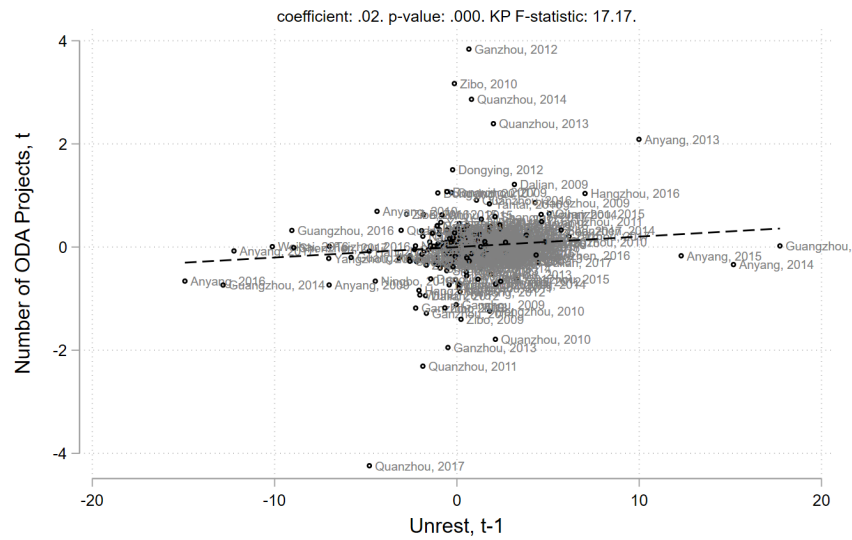
Note: Each dot shows the coefficient from regressions of the count of the phrase labeled on the y-axis in firms' annual reports, divided by the total number of words in the report, on the lagged number of labor unrest events in the firm's prefecture, controlling for firm and province-year fixed effects, as well as prefecture-specific linear time trends. The horizontal bars show 95% confidence intervals. All variables are standardized to have a mean of 0 and a standard deviation of 1, to facilitate interpretation. The unit of observation is a firm-year. The standard errors are clustered at the firm level. The sample includes Chinese listed firms and their subsidiaries or parents that are located in the same prefecture. Source: Author's illustration based on the data described in Section 3.

Figure A.10: Effect of Local Unrest on ODA Contract Allocation to Chinese Firms, Non-Parametric Specification



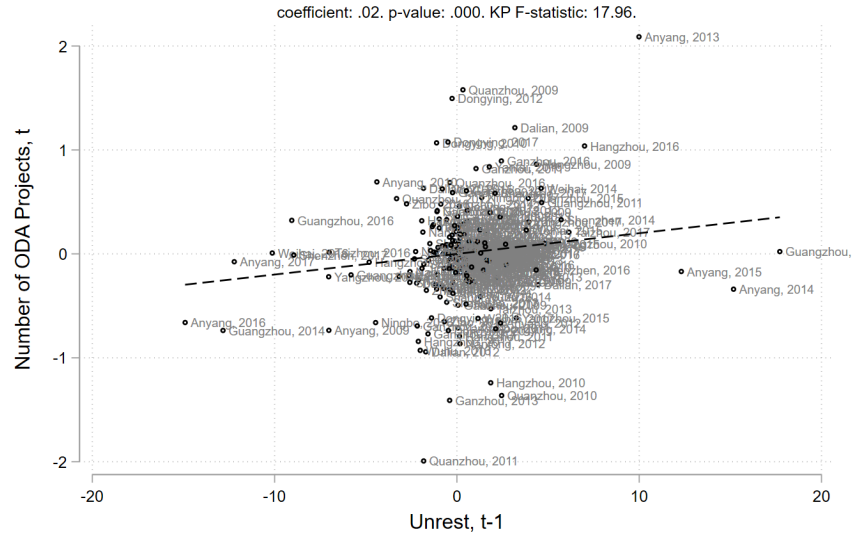
Note: The dots show the coefficients from a regression of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the levels of unrest intensity in that prefecture and year shown on the x-axis, controlling for prefecture and province-year fixed effects, and for prefecture-specific linear time trends. Unrest intensity in a prefecture and year is calculated as the number of unrest events within a given percentile range relative to the unrest distribution in the sample. The vertical lines show 95% confidence intervals. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level. Source: Author's illustration based on the data described in Section 3.

Figure A.11: Effect of Unrest on Global ODA Allocation, Residual Plot



Note: The dashed line shows the line of fit from a regression of the number of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in year $t - 1$. The regression is estimated at the shock level (prefecture-year), weighted by countries' exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to $t - 1$. Country-year level variables are residualized on country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regression controls for prefecture and province-year fixed effects and prefecture-specific linear time trends. The dots show the regression residuals. The sample is a balanced panel of prefectures in 2009–2017 as described in Section 5.1.

Figure A.12: Effect of Unrest on Global ODA Allocation, Dropping Outliers



Note: The dashed line shows the line of fit from a regression of the number of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in year $t - 1$. The regression is estimated at the shock level (prefecture-year), weighted by countries' exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to $t - 1$. Country-year level variables are residualized on country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regression controls for prefecture and province-year fixed effects, and for prefecture-specific linear time trends. The dots show the regression residuals. The sample is a balanced panel of prefectures in 2009–2017 but excludes selected outliers as described in the text.

Table A.1: Examples of Unrest Events

Year	Prefecture, Province	Description
2005	Dongying, Shandong	Shengli oil field workers protest over restructuring
2008	Shanghai, Shanghai	Huanxin / Yixin electronics factory workers protest over wage arrears
2009	Zhengzhou, Henan	Linzhou Iron and Steel Company protest
2010	Jingzhou, Hubei	Teachers protest in front of the government building in Gong'an County
2011	Yongzhou, Hunan	Yuejin machinery factory workers strike
2011	Wenshan, Yunnan	Railway construction workers protest against violence
2012	Honghe, Yunnan	Miners march toward government buildings, protesting factory move
2013	Wuhan, Hebei	Gas company workers stage strikes against merger
2013	Yulin, Shaanxi	Taxi drivers strike, demanding the government to crack down
2014	Chifeng, Inner Mongolia	1000 steel workers demand six months of wages in arrears at local gov

Note: Data for 2003 to 2011 is from the *China Strikes Crowdmap* and data for 2012 to 2019 is from the *China Labour Bulletin*. Examples were selected from unrest events estimated to involve > 1000 participants. Descriptions are abbreviated from the original data by the author for ease of exposition.

Table A.2: The Largest Chinese ODA Projects by Financial Value

Country	Year	Amount	Short Description	Contractors
Iran	2017	1818	Abadan Refinery Phase 2	Sinopec Engineering China International Waster & Electric;
Sudan	2003	1286	Merowe Hydroelectric Power Plant	Harbin Electric; PowerChina International; STECOL; Sinohydro 7th Bureau
Ethiopia	2013	1253	Social Housing	China Railway 24th Bureau
Kazakhstan	2009	1152	Atyrau Refinery Hydrocarbon Complex	Luoyang Petrochemical Sinopec 10th Construction Co.
Iran	2016	1133	Abadan Refinery Phase 1	Sinopec Engineering
Congo	2012	1019	Pointe-Noire-Brazzaville Road	China Construction 5th Engineering Division

Note: This table shows the largest Chinese ODA projects implemented by firms in the sample. Financial amounts are in millions of constant 2017 USD. See Section 3 for details on the underlying data.

Table A.3: The Largest Chinese OOF Projects by Financial Value

Country	Year	Amount	Short Description	Contractors
Malaysia	2016	4870	East Coast Rail Link	CCCC 2nd Highway Engineering; China Harbour Engineering
Pakistan	2014	3856	Karachi Nuclear Power Plant Project 1	Zhongyuan Engineering Corp
Laos	2016	3628	China-Laos Railway	China Railway No. 2, 3, 5, 8 Engineering; Sinohydro Bureau 14, 15
Pakistan	2014	2168	Karachi Nuclear Power Plant Project 2	Zhongyuan Engineering Corp
Vietnam	2016	2050	Vinh Tan 3 Power Plant	Harbin Electric International
Kazakhstan	2016	2050	Atyrau Petrochemical Complex	China National Chemical Engineering

Note: This table shows the largest Chinese OOF projects implemented by firms in the sample. Financial amounts are in millions of constant 2017 USD. See Section 3 for details on the underlying data.

Table A.4: Descriptive Statistics: Firm-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Contracts	63616	0.03	0.26	0	11
# of Yearly Chinese ODA Contracts	63616	0.02	0.19	0	7
# of Yearly Chinese OOF Contracts	63616	0.01	0.15	0	9
Financial Value of Yearly Chinese Contracts (mn)	63616	3.23	55.37	0	6438.44
Financial Value of Yearly Chinese ODA Contracts (mn)	63616	0.74	16.34	0	1818
Financial Value of Yearly Chinese OOF Contracts (mn)	63616	2.5	50.71	0	6024.41
# of Employees*	16432	1195	2511	5	24304

Note: This table reports descriptive statistics for firm-year level variables for the firms in the sample prefectures, covering 2004 to 2017. Financial amounts are in constant 2017 USD. Variables marked with * are from the firms in the 2007–2015 tax survey, which includes a subsample of firms. See Section 3 and Online Appendix B.2 for a description of the data sources.

Table A.5: Descriptive Statistics: Prefecture-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Contracts	3290	0.58	3.05	0	58
# of Yearly Chinese ODA Contracts	3290	0.36	1.84	0	34
# of Yearly Chinese OOF Contracts	3290	0.23	1.38	0	28
Financial Value of Yearly Chinese Contracts (mn)	3290	62.57	455.21	0	13028.45
Financial Value of Yearly Chinese ODA Contracts (mn)	3290	14.3	115.97	0	3462.23
Financial Value of Yearly Chinese OOF Contracts (mn)	3290	48.27	365.14	0	9852.52
# of Labor Unrest Events	3290	2.34	6.83	0	111
# of Unrest Events in Neighboring Prefectures	3276	11.47	24.43	0	283
# of Main Sector Labor Unrest Events	3290	1.55	5.14	0	96
# of Service Sector Labor Unrest Events	3290	0.72	1.92	0	26
# of Labor Unrest Events with Repressive Gov. Responses	3290	0.64	2.39	0	50
# of Labor Unrest Events with Other Gov. Responses	3290	0.26	0.83	0	10
# of Labor Unrest Events with Unknown Gov. Responses	3290	1.43	4.22	0	58
Population (mn)	3234	467.78	320.76	16.37	3392
GDP (bn)	3233	30.17	40.69	0.81	434.65
GDP per Capita	3228	6175	4641	611	73917
GDP Growth	3225	12.08	4.05	-15.95	37.69
Average Wage of Employees in Urban Areas	3217	5732	2384	1617	30322
Local Government Expenditure (bn)	3232	3.97	7	0.07	106.72
Local Government Income (bn)	3233	2.55	5.96	0.01	98.81
# of Procurement Contracts	1645	70.91	275.84	0.00	4088.00
Financial Value of Procurement Contracts (mn)	1645	47.93	172.79	0.00	2630.24

Note: This table reports descriptive statistics for prefecture-year level variables for the sample prefectures, covering 2004 to 2017. Data on contracts are described in Section 3. Labor unrest data for 2003 to 2011 is from the *China Strikes Crowdmap* and for 2012 to 2019 from the *China Labour Bulletin*. Data on procurement contracts are from the China Government Procurement website and include data from 2013 to 2019 for the firms in the sample. All other variables are based on data from the China City Statistical Yearbooks. Variables that are lagged in the main analysis (unrest and controls) are lagged here as well. Financial values are in constant 2017 USD. See Sections 3 and B.3 for a description of the data sources.

Table A.6: Descriptive Statistics: Country-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Projects	963	1.45	2.51	0.00	31.00
# of Yearly Chinese ODA Projects	963	0.87	1.42	0.00	10.00
# of Yearly Chinese OOF Projects	963	0.58	1.76	0.00	27.00
Financial Value of Yearly Chinese Projects (mn)	963	172.63	544.21	0.00	6709.27
Financial Value of Yearly Chinese ODA Projects (mn)	963	40.62	149.25	0.00	2420.18
Financial Value of Yearly Chinese OOF Projects (mn)	963	132.01	491.04	0.00	6427.57
FDI Net Inflow (mn)	942	1932.85	4461.21	-9807.52	49484.26
Chinese Imports (mn)	960	3.94	8.50	0.01	70.28
Net OECD-DAC Aid (mn)	961	562.40	793.83	-400.65	7206.41

Note: This table reports descriptive statistics for country-year level variables for the sample countries, covering 2009 to 2017. All variables other than the number and value of projects are from the World Bank Development Indicators ([World Bank, 2022](#)) or the BACI database for bilateral trade ([Gaulier and Zignago, 2010](#)). Financial values are in constant 2017 USD. See Section 3 for a description of the underlying data.

Table A.7: Effect of Local Unrest on ODA Contract Allocation, Contract Value

	(1) Log Value of ODA Contracts	(2) Log Value of ODA Contracts	(3) Log Value of ODA Contracts	(4) Log Value of ODA Contracts	(5) Log Value of ODA Contracts
Unrest, t-1	0.167** (0.0750)	0.238** (0.0924)	0.182** (0.0740)	0.169** (0.0742)	0.260*** (0.0910)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	658	658	658	658	658
Adjusted R Squared	0.457	0.465	0.457	0.456	0.465

Note: This table reports the coefficients of regressions of the log of 1 + the total financial value of ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data. Financial values are in constant 2017 USD.

Table A.8: Effect of Local Unrest on OOF Contract Allocation to Chinese Firms

	(1) # of OOF Contracts	(2) # of OOF Contracts	(3) # of OOF Contracts	(4) # of OOF Contracts	(5) # of OOF Contracts
Unrest, t-1	0.00180 (0.0177)	0.00264 (0.0175)	0.00129 (0.0185)	0.00179 (0.0176)	0.00213 (0.0183)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	644	644	644	644	644
Adjusted R Squared	0.492	0.491	0.490	0.490	0.488

Note: This table reports the coefficients of regressions of the number of OOF contracts allocated to firms in a given Chinese prefecture and year on the number of labor unrest events in the prefecture and year indicated in the table, controlling for prefecture and province-year fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one OOF contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.9: Effect of Local Unrest on ODA Contract Allocation, Leads and Lags

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t+1	-0.00966 (0.0168)	-0.00744 (0.0164)	-0.00920 (0.0174)	-0.00839 (0.0167)	-0.00656 (0.0170)
Unrest, t	0.00812 (0.0105)	0.0115 (0.0101)	0.00879 (0.0108)	0.00710 (0.00987)	0.0113 (0.0102)
Unrest, t-1	0.0578*** (0.0158)	0.0599*** (0.0146)	0.0585*** (0.0165)	0.0569*** (0.0140)	0.0600*** (0.0144)
Unrest, t-2	0.00960 (0.0182)	0.0200 (0.0193)	0.00951 (0.0183)	0.0106 (0.0171)	0.0194 (0.0199)
Unrest, t-3	-0.0347 (0.0278)	-0.0197 (0.0260)	-0.0345 (0.0278)	-0.0223 (0.0384)	-0.0149 (0.0342)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	564	564	564	564	564
Adjusted R Squared	0.619	0.621	0.618	0.619	0.618

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the number of labor unrest events in the prefecture and year indicated in the table, controlling for prefecture and province-year fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.10: Effect of Local Unrest on ODA Contract Allocation, LASSO IV

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.045*** (0.0127)	0.067*** (0.0226)	0.048*** (0.0151)	0.045*** (0.0127)	0.082*** (0.0262)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	658	658	658	658	658
Sup Score Test	reject	reject	reject	reject	reject

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects and for prefecture-specific linear time trends, as well as the controls indicated in the table. Lagged unrest is instrumented with instrumental variables based on the local weather conditions selected by LASSO interacted with unrest in other prefectures, following [Beraja et al. \(2023\)](#). The candidate instruments include weather variables interacted with themselves and an indicator for whether an unrest event occurred elsewhere in China on the day, aggregated to the prefecture-year level. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. The last row shows the results of a weak-identification-robust sup-score test by [Chernozhukov, Chetverikov and Kato \(2013\)](#) on the main regressor of interest, unrest, at the 10% significance level. See Section 3 for a description of the underlying data. Financial values are in constant 2017 USD.

Table A.11: LASSO IV First Stage

	(1)	(2)	(3)	(4)	(5)
	Unrest,t-1	Unrest,t-1	Unrest,t-1	Unrest,t-1	Unrest,t-1
(Snow Depth*Unrest elsewhere,t-1) ²	-0.0179*** (0.000619)	-0.0145*** (0.00125)	-0.0182*** (0.00344)	-0.0184*** (0.00119)	-0.0125*** (0.00279)
Snow*Unrest elsewhere,t-1*					
Pressure*Unrest elsewhere,t-1	-0.0505 (0.0590)	-0.0418 (0.0620)	-0.0494 (0.0580)	-0.0504 (0.0592)	-0.0428 (0.0577)
Gust*Unrest elsewhere,t-1*					
Pressure*Unrest elsewhere,t-1	0.277*** (0.0994)	0.231** (0.102)	0.284*** (0.102)	0.271** (0.102)	0.226** (0.0892)
Snow*Unrest elsewhere,t-1*					
Snow*Unrest elsewhere,t-1	-0.0224 (0.0220)	-0.0248 (0.0186)	-0.0242 (0.0319)	-0.0223 (0.0217)	-0.0229 (0.0289)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	658	658	658	658	658
Adjusted R Squared	0.878	0.886	0.878	0.878	0.886

Note: This table reports the coefficients of regressions of the number of lagged unrest events in Chinese prefectures on the instrumental variables based on local weather conditions selected by LASSO interacted with unrest in other prefectures, following [Beraja et al. \(2023\)](#). The regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends, as well as for the controls indicated in the table. The candidate instruments include weather variables interacted with themselves and an indicator for whether an unrest event occurred elsewhere in China on the day, aggregated to the prefecture-year level. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.12: Effect of Local Unrest on Prefecture-level Outcomes

	(1) Population	(2) Total GDP	(3) Government Revenue	(4) Average Wage
Unrest, t-1	0.00272 (0.0353)	0.0142 (0.0165)	0.0182 (0.0151)	0.0428 (0.0263)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	653	653	653	653
Adjusted R Squared	0.993	0.989	0.980	0.980

Note: This table reports the coefficients of regressions of the prefecture-year level outcomes indicated by the column heads on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects, and prefecture-specific linear time trends. The unit of observation is a prefecture-year. All variables are standardized to have a mean of 0 and a standard deviation of 1 to facilitate interpretation. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.13: Effect of Local Unrest on ODA Contract Allocation, Heterogeneity

	(1) # of ODA Contracts	(2) # of Infrastructure ODA Contracts	(3) # of Non-infrastructure ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1	0.0513*** (0.0114)	0.0329** (0.0136)	0.00562 (0.00726)	0.0706** (0.0300)	-0.0274 (0.0571)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Observations	658	658	658	236	337
Adjusted R Squared	0.613	0.533	0.329	0.578	0.385
Sample	Baseline	Baseline	Baseline	Fiscally Constrained Prefectures	Less Fiscally Constrained Prefectures

Note: This table reports the coefficients for the regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects, and prefecture-specific linear time trends. Column (1) is equivalent to the baseline. Columns (2) and (3) respectively restrict ODA contracts to those related to infrastructure projects and other projects. Columns (4) and (5) respectively restrict the sample to prefectures with above/below median public expenditure to GDP ratios at $t - 2$. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.14: Effect of Local Unrest on ODA Contract Allocation, by Type of Unrest

	(1)	(2)	(3)	(4)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.0513*** (0.0114)	0.0534*** (0.0127)		
# of Unrest Events in Neighboring Prefectures, t-1		0.00821 (0.00602)		
Main Unrest, t-1			0.0621*** (0.0115)	
Service Sector Unrest, t-1			0.0315 (0.0287)	
Unrest w Repressive Gov Intervention, t-1				0.0791*** (0.0246)
Unrest w Other Gov Intervention, t-1				0.0155 (0.0606)
Unrest, Gov Response Unknown, t-1				0.0389** (0.0160)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	658	658	658	658
Adjusted R Squared	0.613	0.614	0.614	0.612

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the lagged number of different types of labor unrest events in that prefecture and year, controlling for prefecture and province-year fixed effects and prefecture-specific linear time trends. Column (1) reports the baseline for comparison. Column (2) controls for the lagged total number of unrest events in neighboring prefectures in a given year. Column (3) differentiates between the number of unrest events in main sectors (construction, manufacturing, and mining) and service sectors (local transport, education, and other services). Column (4) distinguishes between unrest that provoked a repressive government intervention and unrest that provoked a non-repressive government intervention. Unrest events are classified as provoking a repressive response if the government response description provided in the data includes one of the keywords *police*, *arrest*, or *fine*. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.15: Effect of Local Unrest on ODA Contract Allocation, All Prefectures

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.0202*** (0.00768)	0.0203*** (0.00780)	0.0201** (0.00776)	0.0207** (0.00801)	0.0205** (0.00801)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	3126	3126	3126	3126	3126
Adjusted R Squared	0.660	0.659	0.659	0.660	0.659

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the number of labor unrest events in the prefecture and year indicated in the table, controlling for prefecture and province-year fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one firm in the MOFCOM list of firms licensed to contract overseas construction projects. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.16: Effect of Local Unrest on ODA Contract Allocation, Different Sets of FEs

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.0253 (0.0154)	0.0426*** (0.00865)	0.0378*** (0.0130)	0.0513*** (0.0114)	0.0619*** (0.0123)
Prefecture and Year FEs	Yes	Yes	Yes	Yes	Yes
Prefecture-specific Linear Time Trends	No	Yes	No	Yes	Yes
Province-Year FEs	No	No	Yes	Yes	Yes
Prefecture-level Controls	No	No	No	No	Yes
Observations	658	658	658	658	658
Adjusted R Squared	0.579	0.621	0.580	0.613	0.618

Note: This table reports coefficients of regressions of the number of ODA contracts allocated to firms in a given Chinese prefecture and year on the number of labor unrest events in the prefecture and year indicated in the table, controlling for the fixed effects and controls indicated in the table. The prefecture-level controls include lagged GDP, population, and government revenue. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.17: Effect of Local Unrest on ODA Contract Allocation to Chinese Firms, Robustness to Treatment Effect Heterogeneity

	(1)	(2)	(3)	(4)
	# of ODA Contracts	# of ODA Contracts	Log Value of ODA Contracts	Log Value of ODA Contracts
Above 90 Percentile Unrest, t-1	0.114** (0.0549)	0.191** (0.0812)	0.486* (0.276)	0.892** (0.436)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	3126	3126	3126	3126
Method	OLS	Callaway & Sant'Anna (2021)	OLS	Callaway & Sant'Anna (2021)

Note: This table reports the coefficients of regressions of the number or log 1 + financial value of ODA contracts allocated to firms in a given Chinese prefecture and year on lagged labor unrest intensity in that prefecture and year, controlling for prefecture and province-year fixed effects and prefecture-specific linear time trends. The unit of observation is a prefecture-year. Labor unrest intensity is a dummy that equals 1 in the year the number of labor unrest events in the prefecture and year is above the 90th percentile of the prefecture's distribution in the sample and thereafter. Columns (1) and (3) are estimated by OLS. Columns (2) and (4) are estimated using the [Callaway and Sant'Anna \(2021\)](#) estimator. The sample includes all prefectures with at least one firm in the MOFCOM list of firms licensed to contract overseas construction projects. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.18: Effect of Local Unrest on Domestic Procurement Contract Allocation

	(1)	(2)	(3)	(4)	(5)
	# of Procurement Contracts	# of Procurement Contracts	# of Procurement Contracts	# of Procurement Contracts	# of Procurement Contracts
Unrest, t-1	0.108 (0.0683)	0.104 (0.0672)	0.115* (0.0658)	0.0869* (0.0490)	0.0863* (0.0481)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	868	868	868	868	868
Adjusted R Squared	0.875	0.875	0.874	0.877	0.877

Note: This table reports the coefficients of regressions of the number of domestic government procurement contracts allocated to firms in a given Chinese prefecture and quarter on the lagged number of labor unrest events in that prefecture and quarter, controlling for prefecture and province-quarter fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-quarter. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.19: Effect of Local Unrest on Domestic Procurement, Financial Value

	(1)	(2)	(3)	(4)	(5)
	Log Value of Procurement Contracts	Log Value of Procurement Contracts	Log Value of Procurement Contracts	Log Value of Procurement Contracts	Log Value of Procurement Contracts
Unrest, t-1	0.213** (0.103)	0.213** (0.102)	0.216** (0.105)	0.208* (0.102)	0.209* (0.105)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	868	868	868	868	868
Adjusted R Squared	0.528	0.527	0.527	0.528	0.526

Note: This table reports the coefficients of regressions of the log of 1 + the financial value of domestic government procurement contracts allocated to firms in a given Chinese prefecture and quarter on the lagged number of labor unrest events in that prefecture and quarter, controlling for prefecture and province-quarter fixed effects, prefecture-specific linear time trends, and the controls indicated in the table. The unit of observation is a prefecture-quarter. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.20: Effect of Conducive Weather on Local Unrest

	(1)	(2)	(3)	(4)	(5)
	Unrest, t	Unrest, t	Unrest, t	Unrest, t	Unrest, t
Conducive Weather, t	0.105*** (0.0221)	0.0896*** (0.0236)	0.101*** (0.0305)	0.102*** (0.0240)	0.0778*** (0.0238)
ODA Contract Stock, t-1	-0.00844 (0.0209)	-0.00457 (0.0191)	-0.00854 (0.0207)	-0.00903 (0.0208)	-0.00559 (0.0190)
Conducive Weather, t*ODA Contract Stock, t-1	-0.0481** (0.0201)	-0.0416* (0.0229)	-0.0478** (0.0209)	-0.0422* (0.0240)	-0.0377** (0.0184)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP	No	Yes	No	No	Yes
Population	No	No	Yes	No	Yes
Gov. Revenue	No	No	No	Yes	Yes
Observations	564	564	564	564	564
Adjusted R Squared	0.882	0.886	0.883	0.881	0.887

Note: This table reports the coefficients for the regressions of the number of unrest events in a given prefecture and year on conducive weather in that prefecture and year, as well as its interaction with the existing stock of ODA contracts allocated to firms in the prefecture up to the prior year. The analysis controls for prefecture and province-year fixed effects, prefecture-specific linear time trends, and the other controls indicated in the table. Conducive weather is the predicted number of unrest events from the LASSO specification discussed in the text, partialing out fixed effects (following [Beraja et al., 2023](#)). ODA stock is calculated as the number of ODA contracts allocated to firms in a prefecture up to t-1 after partialing out fixed effects. Unrest and conducive weather are standardized to have a mean of 0 and standard deviation of 1 to facilitate interpretation. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.21: Effect of Conducive Weather on Local Unrest, Falsification Test

	(1)	(2)	(3)	(4)	(5)
	Unrest, t	Unrest, t	Unrest, t	Unrest, t	Unrest, t
Conducive Weather, t	0.0900*** (0.0158)	0.0833*** (0.0186)	0.0755*** (0.0166)	0.0869*** (0.0169)	0.0650*** (0.0159)
Unrest, t-1	0.0711*** (0.0227)	0.0493** (0.0195)	0.0587*** (0.0191)	0.0773*** (0.0230)	0.0365* (0.0204)
Conducive Weather, t*Unrest, t-1	0.00311 (0.0165)	0.00376 (0.0157)	0.0265 (0.0174)	0.00275 (0.0180)	0.0329 (0.0238)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
GDP	No	Yes	No	No	Yes
Population	No	No	Yes	No	Yes
Gov. Revenue	No	No	No	Yes	Yes
Observations	564	564	564	564	564
Adjusted R Squared	0.890	0.889	0.889	0.890	0.890

Note: This table reports the coefficients of regressions of the number of unrest events in a given prefecture and year on conducive weather in that prefecture and year, as well as its interaction with lagged unrest in the prefecture. The regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends, as well as the controls indicated in the table. Conducive weather is the predicted number of unrest events from the LASSO specification discussed in the text, partialing out fixed effects (following [Beraja et al., 2023](#)). Unrest and conducive weather are standardized to have a mean of 0 and a standard deviation of 1 to facilitate interpretation. The unit of observation is a prefecture-year. The sample includes all prefectures with at least one aid contractor. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.22: Effect of Unrest on Global ODA Allocation, Financial Value

	(1) Log Value of ODA Projects	(2) Log Value of ODA Projects	(3) Log Value of ODA Projects	(4) Log Value of ODA Projects	(5) Log Value of ODA Projects
Unrest, $t-1$	0.143*** (0.0249)	0.139*** (0.0266)	0.142*** (0.0258)	0.152*** (0.0348)	0.150*** (0.0341)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Region-Year FEs	Yes	Yes	Yes	Yes	Yes
GDP, $t-1$	No	Yes	No	No	Yes
Population, $t-1$	No	No	Yes	No	Yes
Gov. Revenue, $t-1$	No	No	No	Yes	Yes
Observations	216	216	216	216	216
F-statistic	32.99	27.18	30.25	19.06	19.42

Note: This table reports the coefficients of regressions of the log of 1 + the financial value of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in year $t - 1$. The regressions are estimated at the shock level (prefecture-year), weighted by the country's exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to $t - 1$. Country-year level variables are residualized on the country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends, as well as for the controls indicated in the table. The sample is a balanced panel of prefectures in 2009–2017 as described in Section 5.1. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.23: Effects of Unrest on Global ODA Allocation, Leads and Lags

	(1)	(2)	(3)	(4)	(5)
	# of ODA Projects	# of ODA Projects	# of ODA Projects	# of ODA Projects	# of ODA Projects
Unrest, t+1	0.00641 (0.0112)	0.00622 (0.0133)	0.00585 (0.0115)	0.0121 (0.0151)	0.0114 (0.0178)
Unrest, t	0.0104 (0.00920)	0.0102 (0.00887)	0.0101 (0.00880)	0.0224 (0.0143)	0.0220 (0.0159)
Unrest, t-1	0.0146 (0.00893)	0.0144* (0.00800)	0.0136 (0.00877)	0.0229** (0.00911)	0.0225* (0.0111)
Unrest, t-2	0.0105 (0.0181)	0.0112 (0.0185)	0.00941 (0.0193)	0.0118 (0.0186)	0.0143 (0.0201)
Unrest, t-3	0.0216 (0.0180)	0.0215 (0.0189)	0.0218 (0.0183)	0.00766 (0.0193)	0.00630 (0.0239)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Region-Year FEs	Yes	Yes	Yes	Yes	Yes
GDP, t-1	No	Yes	No	No	Yes
Population, t-1	No	No	Yes	No	Yes
Gov. Revenue, t-1	No	No	No	Yes	Yes
Observations	216	216	216	216	216

Note: This table reports the coefficients of regressions of the number of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in the years indicated in the table. The regressions are estimated at the shock level (prefecture-year), weighted by the country's exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to the prior year. Country-year level variables are residualized on the country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regressions control for prefecture and province-year fixed effects, and prefecture-specific linear time trends. The sample is a balanced panel of prefectures in 2009–2017 as described in Section 5.1. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the data.

Table A.24: Effects of Unrest on Global ODA Allocation, Falsification Tests

	(1)	(2)	(3)	(4)
	# of ODA Projects	Log Chinese Imports	Log FDI Inflow	Log OECD-DAC Aid
Unrest, $t-1$	0.0570*** (0.0195)	0.000721 (0.00134)	0.00584 (0.00495)	0.00589** (0.00237)
Log Trade with Chinese Prefectures, $t-1$	-0.779 (0.609)			
Baseline FEs	Yes	Yes	Yes	Yes
Residualized on Country and Region-Year FEs	Yes	Yes	Yes	Yes
F-statistics	8.550	0.290	1.400	6.160
Observations	192	216	213	207

Note: This table reports the coefficients of regressions of the outcomes of countries in year t indicated in the column headers on unrest shocks in Chinese prefectures in year $t - 1$. One is added to logged outcome variables before taking logs. The regressions are estimated at the shock level (prefecture-year), weighted by the country's exposure to each Chinese prefecture, following the methodology of [Borusyak, Hull and Jaravel \(2022\)](#). A country's exposure to a Chinese prefecture is calculated as the share of the country's past ODA projects received from the prefecture up to $t - 1$. Country-year level variables are residualized on the country and region-year fixed effects prior to reshaping to the prefecture-year level. The prefecture-year level regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends. Column (1) additionally controls for the trade analogue of weighted unrest, replacing unrest with the log of exports of Chinese prefectures. Financial values are in constant 2017 USD. The sample is a balanced panel of prefectures in 2009–2017 as described in Section 5.1, except 2009–2015 in Column (1) because the Chinese trade data is not available at the prefecture level after 2015. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.