THE DOMESTIC POLITICAL ECONOMY OF CHINA'S FOREIGN AID*

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10 December 2024

Abstract

I study how domestic political considerations influence the foreign policy choices of autocratic regimes, by analyzing the case of Chinese foreign aid. First, using contractor-level data, I find that the regime allocates foreign aid projects to help maintain political stability: aid projects are awarded to state-owned firms in Chinese prefectures hit by social unrest, increasing employment and political stability. Second, I show 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. Finally, I document that foreign aid triggered by domestic unrest does not affect political instability in recipient countries on average.

Keywords: political economy, political stability, unrest, foreign policy, foreign aid, China
JEL codes: E24, F35, O10, O25, P00, P21, P33

*I thank Nancy Qian, Seema Jayachandran, Ameet Morjaria and Chris Udry for their guidance; Ariel BenYishay, Nicola Bianchi, Richard Bluhm, Levi Boxell, Yiming Cao, Ricardo Dahis, Axel Dreher, Ruben Durante, Georgy Egorov, Ray Fisman, Andreas Fuchs, Martin Fiszbein, Kai Gehring, Siddharth George, Johannes Haushofer, Matteo Magnaricotte, Alexey Makarin, Ted Miguel, Jessica Pan, Michael Porcellacchia, Paul Schaudt, Tuan-Hwee Sng, Miguel Talamas, Rainer Thiele, Christoph Trebesch, Shaoda Wang, Jaya Wen, David Yang, Song Yuan, and the participants at the NBER, the Barcelona GSE Summer Forum, and countless other conferences and seminars for helpful comments; Kevin Acker, Aidan Chau, Manfred Elfstrom, Wenwei Peng, Shaoda Wang and Cheryl Wu for help with data; John Acker for copyediting; and Zhentao Jiang, O'Rianna Yew Jingqing, Lan Wang, Zixin Wei, Zhiyao Xu, Johnny Lee Zhuang Yu, Tianyu Zhang, and especially Chuyue Tian for outstanding research assistance. I gratefully acknowledge funding from Ministry of Education AcRF Tier 1 grant FY2023-FRC2-006. Older versions of parts of this paper were previously circulated under the title "China's Foreign Aid: Political Determinants and Economic Effects," first presented in June 2018 and posted as a draft in October 2021.

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1. Introduction

The 21^{st} century has seen the political and economic rise of modern autocratic regimes 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; Aidt, Albornoz and Hauk, 2021), their political logic does not readily apply to autocratic regimes. In contrast to democratic governments, autocratic regimes concentrate power and are not accountable to domestic voters. Political-economic theory suggests, however, that they must secure domestic political stability to stay in power, which is their ultimate objective (Acemoglu and Robinson, 2001; De Mesquita et al., 2005; Svolik, 2012; Egorov and Sonin, 2024). This raises the question whether autocrats' need to maintain political stability could be a determinant of their foreign policy choices.

I address this question in the context of China's foreign aid. China is not only the world's 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 (State Council, 2021). 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, arguably by reducing workers' opportunity cost of protesting and increasing state legitimacy.[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 necessitate

[1]Social unrest is common in China (Lorentzen, 2013; Qin, Strömberg and Wu, 2021). The Chinese state uses various measures to address domestic unrest, including both tools of repression (such as surveillance (Beraja et al., 2023*a*)) and concessions (such as welfare payments (Pan, 2020)). In addition, public employment plays a key role in the state's response to domestic unrest (Wen, 2023). Foreign aid projects can generate employment for Chinese workers, thus decreasing their opportunity cost of protesting. In addition, foreign aid arguably provides other benefits to the state, such as geopolitical influence, and has advantages over other stimulus measures, including domestic spending. For example, because much of the aid is in the form of loans, it does not add to China's sovereign debt in the long term, and reduces moral hazard.

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 contractor-level dataset that allows me to unpack China's internal aid allocation process and link it to subnational variation in domestic stability. I use this dataset to study the domestic political 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 strategy to manage domestic unrest in turn actually affects the allocation of these projects to other countries.[2] I complement my results by examining the effects of this aid on political instability in recipient countries.

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),[3] which includes detailed information on the characteristics, recipients and contractors of Chinese aid projects, and adds two new pieces of information on the domestic origins of these projects. First, I identify the domestic local 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 thousands of firm websites.[4] 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). Finally, I link them to subsidiary-level administrative data, including domestic government procurement contracts as well as customs and tax records. The resulting dataset includes the number and value of foreign aid projects implemented by Chinese contractors in each country and year in 2004–2017, employment in each contractor and year, and the number of labor unrest events in the contractors' home prefectures in each year, among other variables.

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

[2] I do not hypothesize that foreign aid is the only way the Chinese 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.

[3] AidData 3.0, which expands the coverage of AidData 2.0, was released after the completion of the empirical analysis for this paper. I do not use this updated data as other key datasets in this paper do not overlap with the additional years covered by AidData 3.0.

[4] The existing contractor information in both AidData 2.0 and 3.0 is typically at the level of the conglomerate, which can oversee dozens of subsidiaries across China, hindering prior analyses of contractors at the subnational level.

more foreign aid contracts to local contractors in Chinese prefectures hit by unrest. I find that it does: Subsidiaries of contractors in prefectures experiencing a one standard deviation increase in the number of local labor unrest events receive 0.38 SD more aid contracts in the following year. A back-of-the-envelope calculation shows that the value of aid contracts cumulatively explained by domestic unrest amounts to around 10% of the Chinese central state's public security spending.

My empirical strategy controls for a rich set of fixed effects and controls, which address many potential confounders, including macroeconomic and local economic shocks.[5] 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 local weather conditions (following Beraja et al., 2023*a*). 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, and unrelated to 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 at least believes in their effectiveness to help secure stability. I provide evidence for the effectiveness of the regime's strategy along two dimensions: First, I document that employment by state-owned aid contractors, but not by other firms, increases in response to local unrest, suggesting that the opportunity cost of workers to engage in future unrest increases. Second, I find that the allocation of aid contracts to firms in a given prefecture

[5]The baseline controls include province-specific year fixed effects, prefecture fixed effects, prefecture-specific time trends, as well as prefecture-year level local GDP, government revenue and population.

effectively reduces the occurrence of future unrest in that prefecture.[6] 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 its contractors interact in the aid allocation process. Qualitative evidence suggests that in response to domestic unrest in a prefecture, state-owned firms based in that prefecture tend to 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 in a given year 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.[7] A major advantage of this specification is that it allows for the inclusion of country fixed effects, year fixed effects, and the same fixed effects and prefecture-year level controls as in the earlier analysis. It thus again exploits the variation in the subnational distribution of local unrest occurrences across Chinese prefecture within a given year, which is plausibly exogenous to recipient countries, conditional on the fixed effects and controls. 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 Chinese prefectures indeed significantly influences the allocation of Chinese aid to other countries: An increase in the number of unrest events in a prefecture by one standard deviation is on average associated with

[6]Because aid allocation to firms in a prefecture is a function of past unrest in that prefecture, a regression of future unrest on aid would be biased. Instead, I follow Beraja et al. (2023*a*) and show that past aid mitigates the impact of exogenous weather shocks, which tend to lead to unrest, on future unrest.

[7]I measure the country-prefecture connections as the fraction of past aid projects received by a country from firms in the prefecture.

a 0.14 SD increase in the number of aid projects received by countries that are fully connected to firms in that prefecture. Cumulatively, a back-of-the-envelope calculation shows that the sum of domestic unrest across China could lead to the re-allocation of 26% 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.

Finally, I complement my results by examining whether this aid leads to an export of political instability to recipient countries (see Nunn and Qian, 2014). The interaction of unrest occurrences in Chinese prefectures with prior country-prefecture connections is effectively a shift-share instrument for the amount of foreign aid received by a country in a given year. This instrument identifies a LATE for the effect of unrest-driven aid on recipients. However, in line with the existing study by Gehring, Kaplan and Wong (2022), who identify the effect of Chinese aid on conflict and unrest in Africa using a difference-in-differences strategy, I find no evidence for an export of political instability through foreign aid. Because our estimates are consistent but driven by conceptually different variation, their combination suggests that donor self-interests play a more limited role in explaining differences in Chinese aid efficacy than has been suggested in other contexts (see, e.g., Qian, 2015).

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 my paper is that it connects the empirical literature on the political economy of non-democracies with the literature on foreign aid. Economists have documented various strategies used by autocratic and semi-autocratic regimes to secure political stability, including propaganda, repression, and economic policies (Acemoglu and Robinson, 2001; Adena et al., 2015; Blattman and Annan, 2016; Gehlbach, Sonin and Svolik, 2016; Bove, Platteau and Sekeris, 2017; Fetzer, 2019; Egorov and Sonin, 2024; Cantoni et al., 2024). Several recent papers examine the Chinese state's response to domestic instability specifically (King, Pan and Roberts, 2013; Cong et al., 2019; Pan, 2020; Beraja et al., 2023*a*; Campante, Chor and Li, 2023; Wen, 2023; Yang, 2024).[8]

[8]In addition, a recent and growing literature examines the political economy of civil participation in China more generally (e.g., Bai and Jia, 2016; Chen, Pan and Xu, 2016; Qin, Strömberg and Wu, 2017; Cantoni et al., 2019; Bursztyn et al., 2021; Qin, Strömberg and Wu, 2021; Buntaine et al., 2022; Cantoni et al., 2022; Martinez-Bravo et al., 2022).

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 and economic developments in China for other countries (Autor, Dorn and Hanson, 2016; Autor et al., 2020; Beraja et al., 2023*a*,*b*).[9]

I also contribute to the large literature on the determinants and effects of foreign aid (see the reviews by Easterly, 2003; Qian, 2015; Desai, Devarajan and Tobin, 2024). 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, 2008; Faye and Niehaus, 2012; Werker, 2012; Aidt, Albornoz and Hauk, 2021).[10] 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; McLean, 2015; Ahmed et al., 2016; Kersting and Kilby, 2016; Fuchs et al., 2023), 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. In contrast to democratic governments, autocratic regimes are not accountable to voters, but face other domestic political constraints that could influence their foreign policies (Egorov and Sonin, 2024; Yang, 2024).[11]

Recent studies have rigorously examined the determinants and consequences of China's foreign aid specifically, primarily leveraging AidData's great 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.,

[9] Beraja et al. (2023*a*) and Beraja et al. (2023*b*) document how unrest leads to Chinese investments in AI technology, and how Chinese AI exports in turn affect recipient countries' institutional quality.

[10] Several studies show that such aid can negatively affect political and economic stability in recipient countries (e.g., Werker, Ahmed and Cohen, 2009; Crost, Felter and Johnston, 2014; Nunn and Qian, 2014; Dube and Naidu, 2015; Ahmed and Werker, 2015), although not necessarily (e.g., Kilby, 2024).

[11] For one, autocratic regimes' survival, their primary objective, depends on their ability to maintain political and economic stability (Acemoglu, Ticchi and Vindigni, 2010). In addition, autocrats rely on the loyalty of domestic subordinates, including state-owned enterprises, to maintain political control (Shleifer, 1998; Djankov et al., 2003; Huang et al., 2017).

2018, 2019; Cervellati et al., 2022; Hoeffler and Sterck, 2022). An exception is the contemporaneous study by Liu and Zhang (2022), 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).[12] Several influential papers exploit macroeconomic variation to examine the effects of Chinese aid on recipient country outcomes. Most prominently, building on the hypothesis that domestic economic interests can drive aid allocation, Bluhm et al. (2018), Dreher et al. (2021) 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, as well as the domestic and international consequences in terms of political stability.

This paper proceeds as follows. Section 2 provides background on China's political economy, its foreign aid, and their connection. Section 3 introduces the dataset I construct to study the Chinese aid allocation process. 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 and political stability in aid recipient countries. Section 6 offers concluding remarks.

2. Background

2.1. The Political Economy of Unrest in China

Autocratic regimes' ultimate objective is political survival (De Mesquita et al., 2005; Svolik, 2012; Gehlbach, Sonin and Svolik, 2016). 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 related to wage arrears, seemingly paradoxically fulfill an important function in the regime's ability to maintain domestic 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

[12]For example, Bluhm et al. (2018); Martorano, Metzger and Sanfilippo (2020); Guo and Jiang (2021); Dreher et al. (2021, 2022) study the economic impacts of Chinese aid on recipients; Brazys, Elkink and Kelly (2017); Isaksson and Kotsadam (2018); Eichenauer, Fuchs and Brückner (2021); Wellner et al. (2022); Baehr, BenYishay and Parks (2023); Cruzatti, Dreher and Matzat (2023) study impacts on corruption, China's image, deforestation and health; and Dreher et al. (2019); Isaksson (2020) study the role of ethnic identity in Chinese aid to Africa.

the central 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).[13] This helps explain why local labor unrest and its reporting in the media have been common in China (China Labour Bulletin, 2019). See Online Appendix A.1 for more background on labor unrest in China.

To be sure, autocratic regimes use repressive tools such as surveillance and public security measures to address unrest (Beraja et al., 2023*a*; Egorov and Sonin, 2024). However, suppressing all unrest with force could undermine their legitimacy (Acemoglu, Ticchi and Vindigni, 2010). 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 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 instability. Evidence shows that the Chinese state increases public employment in response to domestic unrest. The central government requires state-owned firms to use public employment to "effectively maintain unity and social stability" (Bai, Lu and Tao, 2006; Wen, 2023). One key mechanism here is that employment decreases protest participation by increasing workers' opportunity cost of engaging in unrest (Becker, 1968; Dube and Vargas, 2013; Blattman and Annan, 2016; Fetzer, 2019). 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, 2023).

The Chinese central government first and foremost encourages local governments to use domestic spending to create public 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, local government spending may be insufficient, has decreasing returns (Brandt et al., 2020), and has recently led to unsustainable local

[13]Moreover, labor unrest puts upward pressure on wages, which has helped redirect the Chinese economy from an investment-led to a consumption-led growth model (Zhang, 2019).

government debt levels (Cong et al., 2019). See Subsection 4.4 for further discussion.

Foreign infrastructure aid projects, which are typically financed by the central government and contracted by Chinese firms, offer a potential solution to these issues. In short, foreign aid projects can create jobs for Chinese workers without adding to domestic debt in the long run, while also offering other benefits to the Chinese state. This helps explain why foreign aid projects could be part of China's response to domestic unrest, and how its domestic interests could in turn affect China's foreign aid allocation. I detail the underlying logic further below and present supporting qualitative evidence.

2.2. China's Foreign Aid

China has provided record amounts of development finance, including foreign aid and other official finance, to low- and middle-income countries over the last two decades.[14] With 843 billion USD spent across 165 countries between 2000 and 2021, China's yearly spending has started exceeding the United States' spending in developing countries (Malik et al., 2021). According to AidData 2.0 data (Custer et al., 2021; Dreher et al., 2022), 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" (Official Development Assistance) projects. In Section 4, I also examine non-concessional projects for comparison, which I refer to as "OOF" (Other Official Finance) projects.[15]

The majority of Chinese 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 (State Council, 2011). However, it usually requires that at least 50% of goods and labor used in the projects be supplied by Chinese firms (Gelpern et al., 2023), which are often state-owned. There were over 400,000 Chinese construction workers in developing countries by the end of 2015, according to the Chinese National Bureau of Statistics.

The scope and characteristics of China's aid have attracted much controversy and speculation about its goals. Selfless aid is politically unrealistic for any donor, and the broad involvement of Chinese SOEs fuels suspicions that aid is being wielded as a political

[14]Apart from development finance, China intensified its financial engagement in developing countries with the Belt and Road Initiative, launched in 2013. The Belt and Road Initiative is an umbrella term for Chinese state-sponsored economic activities abroad. It also includes mechanisms such as such as private investment, trade promotion, etc., which are outside of this paper's focus.

[15]Chinese development finance includes all bilateral official finance sent by Chinese government entities to government entities of low- and middle-income countries, including ODA-like and OOF-like funding. In this paper, I use the term *foreign aid* for all bilateral official finance classified by AidData as "ODA-like" or "Vague" (partially ODA-like). See Online Appendix A.2 and Section 3 for details.

tool. Many observers therefore believe that China's foreign aid is driven exclusively by geopolitical and economic goals, including fostering ties with other autocrats, gaining access to natural resources, or entrapping recipients with loans to seize strategic assets upon default (e.g. Naim, 2007). There is correlational support in the data for some of these motives, such as gaining political support for the One China policy, but not for others, such as gaining access to natural resources (Dreher et al., 2018). Non-concessional Chinese development finance (i.e., not aid) is found to be primarily motivated by generating returns on investment (Dreher et al., 2018; Dreher and Parks, 2024).

In contrast, prominent scholars such as Shirk (2008) believe that China's foreign policy, including its foreign aid allocation, is heavily influenced by its domestic political interests. Qualitative evidence implies that a key goal of China's foreign aid is to help secure domestic social stability by generating jobs for Chinese workers, specifically to help address domestic labor unrest (State Council, 2021). The regime highlights its "mutual benefits and win-win principles" that aim to "integrate the interests of the Chinese people with people of other countries" (State Council, 2014, p.1).

Further qualitative evidence supports the idea that China uses foreign aid projects to help address domestic unrest. For example, Copper (2016) comments on the Chinese government's reaction to the 2008/2009 financial 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. Why Foreign Aid Projects to Address Domestic Unrest?

Using foreign aid projects to help secure domestic stability is attractive from the Chinese regime's perspective. First, aid projects can generate counter-cyclical or acyclical demand for Chinese goods, thereby both creating jobs in Chinese factories and allowing the state to send Chinese workers (including protesters) overseas. Jobs can decrease unrest participation by increasing workers' opportunity cost of protesting (Becker, 1968) and through other channels, as outlined earlier. 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, 2022; Wen, 2023). 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. This is important since many local governments in China, which are mainly responsible for domestic investment, are heavily indebted and therefore constrained to further stimulate domestic demand (Cong

et al., 2019; Lin, 2022, see Subsection 4.4 for further discussion). 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, the net return to providing foreign aid may thus equal or exceed the long-term net return versus more direct measures aimed at securing domestic stability. Foreign aid projects are therefore a viable tool to complement other measures aimed at securing domestic stability, particularly when domestic returns are lower and unrest is more severe. It is rational for the state to employ different measures to address unrest at the same time until their marginal returns are equalized.

2.4. The Chinese Foreign Aid Allocation Process

The Chinese foreign aid allocation process and the organization of its foreign aid program are consistent with the domestic stability motive.[16] Figure A.1 schematically illustrates the process. The CPC Central Committee and the State Council, the highest organs of the Chinese regime, oversee the foreign aid program. Their overarching policy goal is political stability (Shirk, 2008; State Council, 2021). 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 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.

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.[17] To avoid competition and

[16]Note that the political process and organization of the involved entities described here correspond to the period studied in this paper (2004 to 2017). They have changed in some aspects with the creation of China's International Development Cooperation Agency (CIDCA) in 2018.

[17]When 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).

exploit returns to scale, different firms specialized in different sets of countries.[18] At the same time, as explained earlier and as I show using systematic text analysis in Section 4, these central SOEs internalize the state's domestic stability goal.

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 aid to specific countries.

Although there is officially a bidding process for projects, the list of bidders is typically 'pre-approved.' The Chinese government 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).[19] Even though recipient countries do not receive the funds directly, they have to repay the loans to the Chinese state upon maturity.

2.5. An Example

Consider the case of Dalian International Economic and Technical Cooperation Group (DIETCG), a major state-owned aid contractor. A wave of unrest in Dalian over labor conditions during the global financial crisis in 2008 led to several 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 thus implemented a record number of MOFCOM-funded construction projects in Equatorial Guinea and other African countries in which it had longstanding 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).

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

[18] Consider China's two largest oil giants as an example. China National Petroleum Corporation (CNPC) is primarily active in Central Asia and Africa, while China Petroleum & Chemical Corporation (Sinopec) operates primarily in South America and Southeast Asia.

[19] Swedlund (2017, pg. 128-129) writes: "One donor official recounted ... having it explained to him that, if a traditional donor wants to build a road in 2012, the process needs to start in 2007. If the Chinese are going to build the same road, they start in 2011, and it is finished in 2012."

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 and Descriptive Statistics

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

3.1. Project-level Data

The starting point of my dataset is data on Chinese projects from AidData's Geocoded Global Chinese Official Finance Database Version 2.0 (Custer et al., 2021; Dreher et al., 2022).[20] This comprehensive and detailed 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. The dataset 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 (Strange et al., 2017). The variables 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 that were financed by a Chinese government agency or policy bank, involve a Chinese contractor, are in a low- or middle-income country, have not been canceled, and are recommended by AidData for research. See Online Appendix B.1 for a detailed description of the data.

This sample includes 2156 projects in 103 countries committed between 2000 and 2017. 56% of the projects are classified as (partially) ODA-like and include grants, concessional loans, and other concessional financing.[21] I focus on these ODA-like 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 117 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 projects implemented by Chinese firms are in the form of hard infrastructure, such as roads and power plants. Figure 2 shows the global

[20] The AidData 3.0 update, which extends the scope of the AidData 2.0 data, was released after the completion of the empirical analysis for this paper. Other key datasets are not available for the additional years covered by AidData 3.0.

[21] This includes projects that are classified as partially ODA-like (marked as "Vague" by AidData). The results are similar when excluding partially ODA-like projects but less statistically powered.

distribution of ODA projects in the sample (see Figure A.2 for the distribution of OOF projects); Online Appendix Table A.1 lists the largest aid projects (see Table A.2 for the largest OOF projects); and Online Appendix B.1 provides descriptive statistics.[22]

3.2. Firm-level Data

To study the allocation of the contracts for 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. 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 (both version 2.0 and 3.0) are typically large conglomerates with multiple subsidiaries across China. 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 identify the subsidiary of the conglomerate that implemented each project.

I construct a firm-year level dataset by 1) identifying the universe of potential Chinese infrastructure aid contractors from official but previously unused records by the Chinese Ministry of Commerce, 2) linking the contractors to administrative firm-level datasets from China (including employment), and 3) linking the contractors to the projects from AidData through a systematic search of thousands of firm websites and business registration records. The result is a panel of the quasi-universe of Chinese firms (subsidiaries) licensed by MOFCOM to contract overseas infrastructure projects. Online Appendix B.1 describes the data construction process and sources in detail. For most specifications, which I outline further below, I aggregate the data to the prefecture-year level.

The main outcome variables are the number and financial value of aid contracts allocated to firms in a given prefecture and year. The number of contracts is my preferred measure since it suffers less 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 as the value of the entire project divided by the number of Chinese firms involved in the project.[23] I additionally link data from the Chinese tax surveys to calculate firm employment and firm-level control variables, as well

[22] I focus on infrastructure aid projects contracted by Chinese construction companies, which are included in the Ministry of Commerce data described further below. These projects constitute most of 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., state-owned firms in recipient countries).

[23] I do not observe the exact payments made to each firm involved in the contract.

as several other datasets such as customs records and domestic procurement data for additional analyses. See Online Appendix B.1 for details.

The panel includes 4544 firms, of which 1182 are central SOEs and their subsidiaries.[24] 421 firms supplied Chinese ODA or OOF projects at least once during my sample period, of which 232 are central SOEs and their subsidiaries. Table A.3 provides firm-level descriptive statistics. The 4544 firms are located in 235 different prefectures across China. Figure A.3 shows the spatial distribution of the firms.

3.3. Unrest and Other Prefecture-level 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 Labour Bulletin, 2019), covering 2012 to 2016.[25] The data are crowd-sourced from worker reports as well as a plethora of traditional media and online sources, and are typically 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 unavailable for most events.

There are 8389 unrest events during 2003–2016 reported in the original data. Figure 3 in the Online Appendix 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, 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. Figure A.6 shows the distribution of the number of unrest events across prefectures and years. Online Appendix B.4 provides further details on the unrest data, while Online Appendix Table A.4 provides further examples of unrest events.

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

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

[25] I thank Manfred Elfstrom for providing the *China Strikes* data and Aidan Chau for help with the CLB data. CLB is an NGO based in Hong Kong. The CLB data generally follow the same scope and method as *China Strikes*.

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; Campante, Chor and Li, 2023). Second, the Chinese state generally tolerates reporting on local labor strikes (Qin, Strömberg and Wu, 2017), 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*a*). 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, described in Online Appendix B.4. I harmonize all prefecture-level variables to 2003 prefecture borders. Table A.5 shows descriptive statistics.

3.4. 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. In addition, I use a number of country-year level variables to examine the effects of Chinese aid on political stability in recipient countries. I use data on conflict incidence in recipient countries from ACLED (Raleigh, Kishi and Linke, 2023) and UCDP (Uppsala University, 2024). 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). Table A.20 provides descriptive statistics for the country-year level variables. Each country in the sample on average received around one aid project per year. Ethiopia, Iran and Sri Lanka were the largest recipients of aid projects implemented by Chinese firms during my study period.

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

actually affects the allocation of these projects to other countries, and whether this affects political stability in recipient countries.

4.1. Empirical Strategy

Figure 1 is consistent with China using foreign aid to help secure domestic stability. It 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.[26] In other words, China provided more contracts for foreign aid projects to Chinese firms following years with more political instability. 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. In addition, I use an IV strategy exploiting exogenous shocks to local unrest and further tests to address remaining confounders, which I describe below after introducing the baseline specification.

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

$$\text{aid}_{p,t} \;=\; \beta\, \text{unrest}_{p,t-1} \;+\; X_{p,t-1}^{'}\Gamma \;+\; \alpha_p \;+\; \delta_{prov,t} \;+\; \zeta_p t \;+\; \epsilon_{p,t}, \tag{1}$$

where $\text{aid}_{p,t}$ is the total number or financial value of aid contracts allocated to firms in prefecture p in year t, and $\text{unrest}_{p,t-1}$ 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 are allowed to vary across provinces.[27] $\zeta_p t$ 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, re-estimate the regressions at the firm-year instead of prefecture-year level, and include firm-specific controls.[28] The main sample

[26] An exception is 2014/2015, when aid was falling while unrest was rising. This can be explained by the Chinese anti-corruption campaign, which started in 2013 and led to a temporary slowdown of China's foreign aid program (Zhang and Smith, 2017).

[27] A province contains around 10 prefectures on average. A prefecture is roughly a city.

[28] My preferred specification is at the prefecture-year level because unrest is at the prefecture-year level. Further, this specification does not overweight prefectures with many firms.

includes all prefectures with aid contractors in 2004–2017 and is restricted to prefectures for which control variables are available.[29] Robustness checks use alternative samples.

The coefficient of interest is β. It captures the effect of local unrest on the number of aid contracts (or their financial value) 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 (see Background section).[30] Below, I also examine the effect of unrest at different leads and lags. 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 changes 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. Nevertheless, 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 4 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.6 shows the corresponding estimate for the contracts' financial value instead of the number of contracts, which is qualitatively similar. Figures A.4 and

[29] Aid contractors are defined as firms that contracted at least one ODA project in 2004–2017.

[30] Unrest may also have little effect on aid allocation in the same calendar year since the aid budget and allocation are typically determined in the previous calendar year.

A.5 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 the baseline 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 by 0.38 SD on average.[31] The cumulative effect is also sizable: the total average number of unrest events in China in a given year multiplied with the coefficient corresponds to 28.7 contracts, or around 56% of China's yearly aid on average.[32] 28.7 aid contracts have a total value of 1.35 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 Chinese central government's response to domestic unrest.

For comparison, Table A.7 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

I next address potential threats to my interpretation of the results, including reverse causality, omitted variables and measurement error.

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 $t+1$. Table A.8 shows the estimated coefficients. Reassuringly, 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 contract allocation on unrest.

[31] $6.61 \cdot 0.0513/0.89 \approx 0.38$

[32] $560.45 \cdot 0.0513/51.36 \approx 0.56$

Prefecture- and firm-level 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.[33] 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 conduct several exercises to address potential confounders.

I first control for local GDP, population, and government revenues. Columns (2) to (5) of Tables 1 and A.6 show that the inclusion of these controls, either separately or together, does not affect the estimates. In addition, there could be firm-specific economic shocks correlated with local unrest and aid contract allocation within a province and year. To address this possibility, Online Appendix Table A.9 estimates the main specification at the firm level (instead of the prefecture level) and controls for firm-level variables, including the lagged number of employees and firm operating income. For comparison, Table A.10 shows the firm-level results without these controls.[34] The estimates do not qualitatively depend on the inclusion of these controls.

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

[33]For example, a negative economic shock to a prefecture (relative to the fixed effects) may decrease local marginal wages in the short term, potentially leading to local labor unrest. At the same time, lower wages would decrease firms' labor costs, allowing them to bid more aggressively on aid contracts. In this case, even though aid allocation would still have a stabilizing effect, a positive β coefficient would reflect a response of aid allocation to local economic instability rather than social unrest *per se*.

[34]Note that this analysis uses a subset of the sample since the firm-level controls are only available for firms that participated in the 2007–2015 tax surveys.

aid allocation. Third, it generates variation in unrest that is orthogonal to the reporting of unrest events.

The IV specification, pioneered by Beraja et al. (2023*a*), is based on the 18 weather variables collected daily by weather stations across China. The variables are allowed to interact with each other to capture a wide range of weather conditions, and to interact with whether unrest occurred in at least one other prefecture on a given day. The intuition is that on some days, politically salient issues will 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*a*) for more discussion of the empirical strategy.

Table 2 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.[35] The coefficient of interest is highly robust. This test corroborates the main result on the effect of local unrest on aid contract allocation.

Similarly, 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 aid allocation. In addition, as a reduced form placebo check, I examine the direct effect of uninteracted local weather shocks on aid allocation in a prefecture, and find that the LASSO algorithm indeed selects no instrument in this specification. This result corroborates the interpretation that the instrument affects aid allocation through local unrest specifically rather than through other channels activated by weather shocks.

Finally, Online Appendix Figure A.8 shows that the estimates are very similar when (i) using the full set of weather conditions instead of only those selected by LASSO, (ii) using weekly instead of daily occurrence in unrest in other prefectures, and (iii) estimating the IV specification using limited-information maximum likelihood (LIML) and jackknife IV estimators (JIVE).

[35] Online Appendix Table 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). Figure A.7 shows the distribution of the weather variables included in the instruments selected by LASSO. To address potential concerns about weak identification, i.e., 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 2.

Placebo outcomes. Online Appendix 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 that local unrest is not associated with sizable changes in local population growth, 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 3, 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 Online Appendix Table A.13, 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 (following the recent literature on two-way fixed effects specifications (e.g., Callaway and Sant'Anna, 2021; Roth et al., 2023)), spillover effects 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 central state's paramount goal is domestic political stability. 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 4 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.[36] 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.[37] 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 significantly 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 domestic unrest. In Section 5 below, I show that they also play an important role in China's global aid allocation.

I next examine the role of local governments, which are responsible for most domestic infrastructure investment and 85% of government expenditures in China (Lin, 2022). The local governments are tasked by the central government to use domestic spending to maintain employment stability and address unrest. Indeed, as Tables A.18 and A.19 in the Online Appendix 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.[38]

[36]For 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 Communique.

[37]I focus on the subset of firms in my sample which are listed on the stock market or subsidiaries 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.

[38]I regress the number or financial value of domestic government procurement contracts allocated to firms in my main sample in a given quarter on local unrest in the previous quarter, controlling for baseline fixed effects and controls. This is analogous to the main specification but uses the prefecture-quarter level instead of prefecture-year level. 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 likely be produced faster than contracts for foreign aid projects. The procurement data are based on official records by the Chinese government's China Government Procurement website and are available for 2013–2019. See Online Appendix B.3 for details. Note that while the effects of unrest on the number of aid and domestic procurement contracts are comparable, domestic procurement contracts are on average significantly smaller than aid contracts (2.6mn vs. 47mn).

Addressing unrest with local government funds first is desirable for the central state for at least two reasons. First, it is a direct way of stimulating local labor demand. Second, it is less prone to moral hazard on the side of local governments than the direct transfer of central government funds. However, high domestic spending has led to unsustainable debt levels among local governments in the last two decades, impeding their ability to further stimulate demand (Cong et al., 2019). 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. Governments have thus had to increasingly rely on off-budget borrowing at considerable cost (Lin, 2022).[39]

In contrast, foreign aid, which typically comes in the form of loans repayable by recipient countries, does not add to China's domestic government debt in the long run. Moreover, foreign aid projects are less prone to moral hazard than transfers because they are less likely to directly benefit local officials economically. Finally, local government spending has decreasing returns (Brandt et al., 2020) and may be insufficient to address domestic unrest, particularly when it 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 help address unrest when local governments have high existing levels of spending, and when unrest is particularly 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 3, 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.

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.[40] Table A.13, Column (4) shows that aid contracts are 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

[39]For example, in response to the 2008 Great Recession, China's central government encouraged local governments to expand their balance sheets to encourage domestic infrastructure construction. Local governments consequently indebted themselves to record levels (Copper, 2016; Cong et al., 2019).

[40]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 non-linear effects of unrest intensity. It shows that the aid allocation response is disproportionally driven by prefecture-years with unrest intensity in the highest decile relative to a given prefecture's 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. Moreover, domestic stimulus measures alone may not be sufficient when unrest is severe.

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 in Chinese prefectures experiencing unrest. Secure employment, in theory, decreases workers' opportunity cost to engage in future unrest (Becker, 1968). I then test whether future unrest is less likely to occur in prefectures that received aid contracts.

Effects of aid on domestic employment. Table 5 examines the effect of local unrest on firm employment. Column (1) shows that central SOEs that contract at least one aid project during the sample period on average increase their employment by approximately 2% for every additional unrest event. The effect is statistically significant at the 5% level. This result is consistent with aid projects generating employment among Chinese aid contractors under the control of the central government. In contrast, unrest has no effect on employment in firms that do not contract aid projects or are not owned by the central government.

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*a*) and test whether past aid contracts mitigate the effects of exogenous shocks on unrest. As the LASSO IV first stage above shows, 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:

$$\begin{aligned} \text{unrest}_{p,t} \;=\; & \beta_1 \text{AidStock}_{p,t-1} \;+\; \beta_2 \text{ConduciveWeather}_{p,t} \times \text{AidStock}_{p,t-1} \\ & +\; \beta_3 \text{ConduciveWeather}_{p,t} \;+\; X_{p,t-1}^{'} \Gamma \;+\; \alpha_p \;+\; \delta_{prov,t} \;+\; \zeta_p t \;+\; \epsilon_{p,t}, \end{aligned} \tag{2}$$

where *ConduciveWeather* 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* 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 6, Column (1) shows the results for the baseline specification. See Columns (2) to (5) for alternative sets of controls, which do not 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.14 tests whether local weather shocks are more conducive to unrest depending on past unrest in the prefecture. Reassuringly, as the coefficient on *ConduciveWeather, t * Unrest, 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.

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., 2021). 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.[41] Firms tend to do this in countries with which they have prior connections.[42] 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.

[41]Interviews with Chinese bureaucrats and firms conducted by Zhang and Smith (2017) reveal that Chinese aid contractors often work as mediators between the Chinese government and aid recipient countries. The Chinese Ministry of Commerce 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.

[42]My empirical strategy, which I discuss below, takes the existing connections between firms and countries as given. Anecdotally, key factors behind these 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. Firms from Yunnan tend to work in Laos due to their geographical proximity.

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:

$$\text{aid}_{i,t} \;=\; \gamma\, \text{Z}_{i,t-1} \;+\; \mathbf{X}_{i,t-1}\Theta \;+\; \alpha_i \;+\; \delta_{rt} \;+\; \mu_{i,t}. \tag{3}$$

where index i denotes countries and t denotes years. The outcome variable, $\text{aid}_{i,t}$, is the number of aid projects received by a country in a year. $\mathbf{X}_{i,t}$ is a vector of country-year level controls (detailed below), α_i denotes country fixed effects, and $\delta_{r,t}$ denotes year fixed affects which are allowed to vary across recipient regions.[43]

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 $t-1$ (capturing existing country-firm connections):

$$\text{Z}_{i,t-1} \;=\; \sum_{p} (\text{unrest}_{p,t-1} \;\cdot\; \omega_{i,p,t-1}), \tag{4}$$

where

$$\omega_{i,p,t-1} \;=\; \frac{\sum_{\tau=0}^{t-1} \text{aid}_{i,p,\tau}}{\sum_{\tau=0}^{t-1} \sum_{p} \text{aid}_{i,p,\tau}}. \tag{5}$$

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 103 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 $\text{aid}_{i,t}$. 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

[43]The regions, based on the World Bank classification, are: East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa.

(existing country-prefecture connections) to be endogenous. Since the shares sum up to 1, this specification isolates the 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:

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

The regression is analogous to Equation 2 in the previous 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-specific year fixed effects to account for regional macroeconomic developments that could be correlated with aid and unrest.[44]

Estimating the specification at the prefecture-year level, following BHJ, 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 (prefecture) rather than outcome (country) level.[45]

5.2. Results

Table 7 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, an increase in the number of unrest events in a prefecture by 8 (1 standard deviation) is associated with approximately 0.17 additional aid projects (0.14 SD) 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.13 graphically

[44] I 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.

[45] Adão, Kolesár and Morales (2019) note that in the case of shift-share instruments, clustering at the country level may result in incorrect standard errors. Standard errors may be underestimated if a set of prefectures bears similar importance across multiple recipient countries, generating correlation at the prefecture level across multiple countries. Borusyak, Hull and Jaravel (2022) show that estimating the specification at the shock level, with standard errors clustered at the shock level, addresses this issue.

illustrates this result. Table A.21 shows the analogue for the 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 Chinese aid and unrest in a given year. A back-of-the-envelope calculation shows that the average number of yearly unrest events across all Chinese prefectures could lead to the re-allocation of 26% of the total amount of Chinese aid in a given year: there are 739 lagged unrest events across China in a year on average, which cumulatively lead to the re-allocation of 15 aid projects among countries per year ($739 \cdot 0.0207 \approx 15$). There are 58 aid projects in a year on average during this sampling period. 15 is approximately 26% of 58.[46]

This result implies that a significant share of China's global aid allocation, 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 in turn also affect its foreign policy in the form of foreign aid.

To help interpret this result, note that the year fixed effects net out the aggregate variation in the total amount of unrest experienced and the 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 re-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 the sample is 10, implying that the within-year re-allocation of aid projects explained by the distribution of unrest is significant also compared to aggregate shifters of Chinese aid across years.

5.3. Robustness

Causal interpretation of the result 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

[46]The number of unrest events and aid projects are not exactly the same as in Subsection 4.2 because the years effectively included in the sample differ given the construction of the regressor.

evidence presented in Section 4. I here present additional robustness checks to further support this assumption.[47]

Leads and lags. Table A.22 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 or spurious trends.

Baseline controls. Table 7 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.

Additional 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 simultaneously with 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 Online Appendix Table A.23, 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 qualitatively unchanged.

Outliers. Online Appendix Figure A.13 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.14 shows that the estimated coefficient of interest is unaffected by dropping these observations.

5.4. Does Politically Driven Aid Affect Stability in Recipient Countries?

Finally, I complement my results by examining whether this unrest-driven aid leads to an export of political instability to recipient countries. For example, Nunn and Qian (2014) find that food aid given by the United States to support its domestic agriculture leads to conflict in recipient countries. Moreover, China does not condition its aid on 'good policies', which has been argued to undermine the benefits of aid (Burnside and Dollar, 2000). On the other hand, others find less support for these arguments in the context of multilateral donors (Dreher et al., 2013) and Chinese aid could be stability-enhancing given the economic benefits it arguably brings (Dreher et al., 2021).

[47]Note 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.

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 in China provides a credible and transparent instrument for the receipt of aid by other countries, addressing these challenges. I instrument the amount of aid received by a country in a given year with the weighted unrest variable $Z_{i,t-1}$ introduced in the previous section. I then regress various measures of unrest and conflict at the recipient country and year level on instrumented aid. The empirical strategy again is again based on the latest shift-share econometrics literature (Borusyak, Hull and Jaravel, 2022). I provide a discussion of the specification and the identifying assumptions in Online Appendix D.

Figure A.15 shows the results. The 2SLS specification recovers the Local Average Treatment Effect (LATE) of Chinese aid triggered by domestic unrest on recipient political stability. I find that this aid has no significant effects on the incidence of unrest and other forms of conflict in the recipient countries on average. The estimates are consistent with the existing study by Gehring, Kaplan and Wong (2022), who examine the effect of Chinese aid on conflict in Africa using a difference-in-differences strategy.[48] Because our estimates are consistent but driven by conceptually different variation, taken together, they suggest that donor self-interests may play a more limited role in explaining differences in Chinese aid efficacy than has been suggested in other contexts (see, e.g., Nunn and Qian, 2014; Qian, 2015). This is important for policymakers given that selfless aid is politically unrealistic.

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

[48] I examine the same time horizon and outcome measures as Gehring, Kaplan and Wong (2022). While my approach exploits an IV strategy that generates country-level variation in aid receipts across the globe, they exploit subnational variations in aid receipt by African countries using a difference-in-difference strategy. Gehring, Kaplan and Wong (2022) use data on conflict from UCDP (Uppsala University, 2024) and SCAD (Salehyan et al., 2012). The latter covers only Africa. I use data from UCDP (Uppsala University, 2024) and ACLED (Raleigh, Kishi and Linke, 2023) for global coverage.

aid allocation. This aid triggered by domestic unrest does not lead to more political instability in recipient countries on average.

These findings have important implications. First, 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. Second, the fact that autocrats' foreign aid pursues domestic interests *per se* does not need to hurt other countries. Instead, other aspects of aid modality may be more important for explaining differences in aid efficacy. These aspects deserve further scrutiny in future research.

It is also important to consider the extent to which these 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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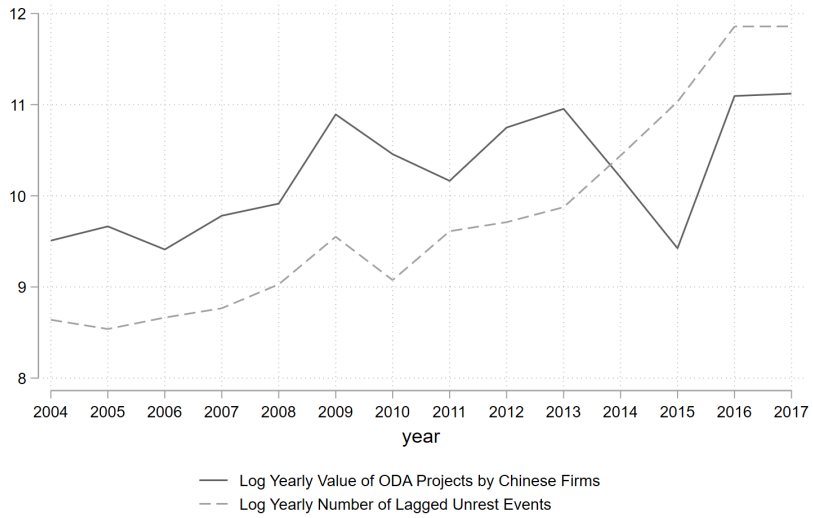
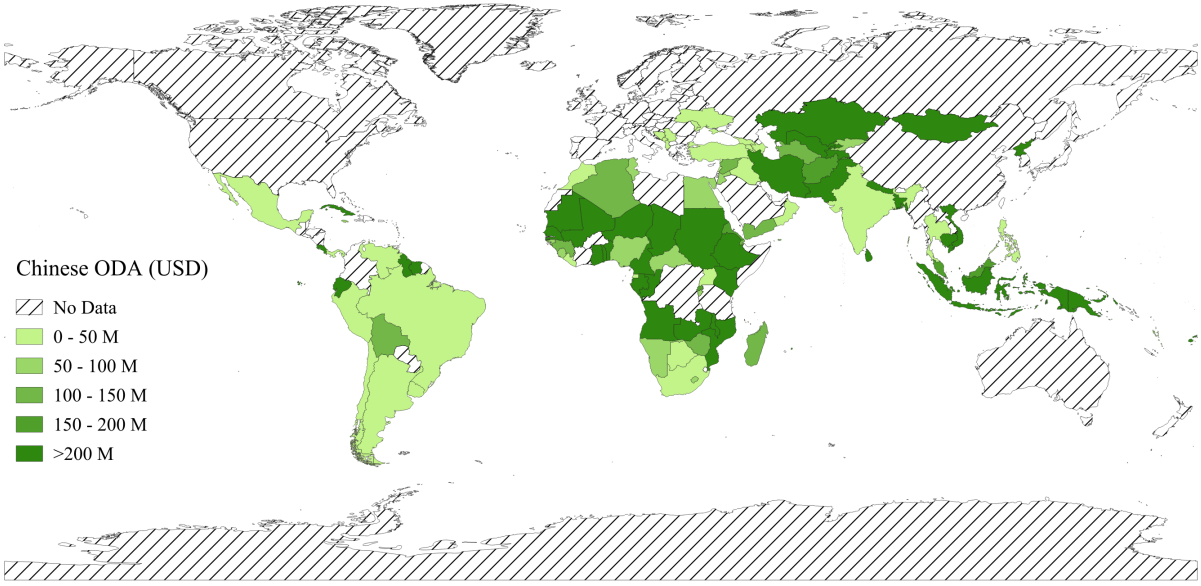
Figures and Tables

Figure 1: Chinese Foreign Aid and Domestic Unrest Over Time



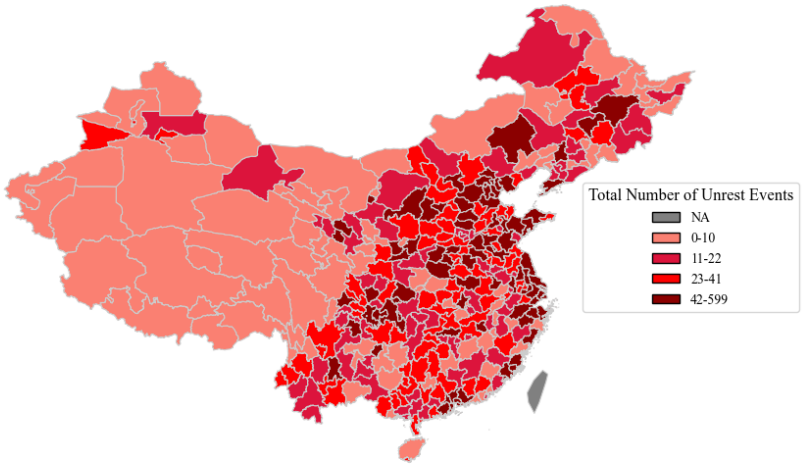
Note: The solid line shows the logarithm of the total financial value of Chinese ODA projects (in 100k constant 2017 USD) contracted by Chinese firms in the baseline sample in each year. The dashed line shows the logarithm of the total number of labor unrest events in China in the baseline sample in 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: Global Distribution of Chinese ODA Contracted by Chinese Firms



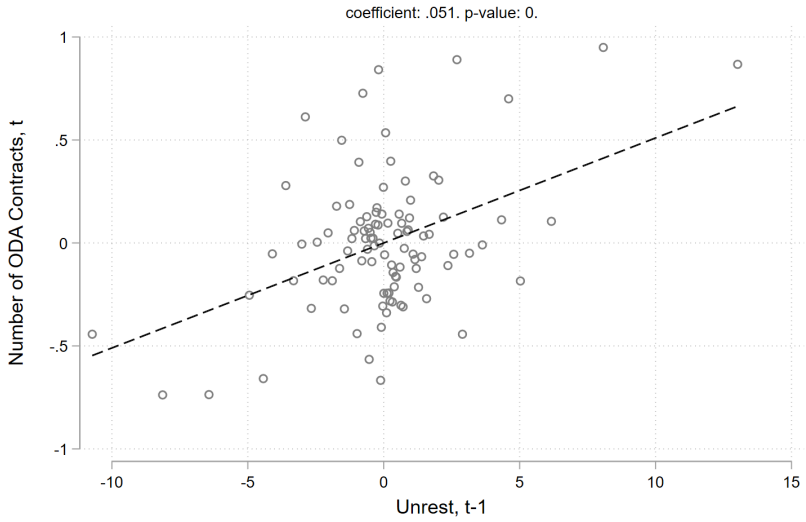
Note: This figure shows the total financial value of Chinese ODA projects committed to low- and middle-income countries and contracted by Chinese firms in the baseline estimation sample from 2004–2017. Financial amounts are in constant 2017 USD. Source: author's illustration based on data described in Section 3.

Figure 3: Distribution of Unrest Events Across China



Note: This map shows the number of labor unrest events in each Chinese prefecture from 2003–2016. 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. The map contains the territories claimed by China as of 2024, but only unrest data for Mainland China is available and included.

Figure 4: 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) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1	0.0513***	0.0620***	0.0517***	0.0546***	0.0619***
	(0.0114)	(0.0122)	(0.0117)	(0.0119)	(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, LASSO IV

	(1) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1	0.044***	0.065***	0.046***	0.044***	0.08***
	(0.0123)	(0.0222)	(0.0147)	(0.0123)	(0.0259)
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, following Beraja et al. (2023*a*). 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 3: 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	0.0510***	0.0457***	0.0105	0.0707**	-0.0274
	(0.0114)	(0.0150)	(0.00755)	(0.0300)	(0.0571)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Observations	658	658	658	236	337
Adjusted R Squared	0.614	0.656	0.363	0.577	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. 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 4: Effect of Local Unrest on ODA Contract Allocation, by Type of Firm

	(1) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1*Central SOE	0.0683**	0.0726**	0.0679**	0.0695**	0.0715**
	(0.0280)	(0.0283)	(0.0276)	(0.0283)	(0.0280)
Unrest, t-1*Local SOE	-0.00133	0.00303	-0.00182	-0.000208	0.00186
	(0.0145)	(0.0140)	(0.0149)	(0.0142)	(0.0144)
Unrest, t-1*Other Firms	0.00568	0.00992	0.00518	0.00682	0.00880
	(0.0165)	(0.0162)	(0.0169)	(0.0162)	(0.0165)
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	1414	1414	1414	1414	1414
Adjusted R Squared	0.204	0.204	0.203	0.204	0.202

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, as well as its interaction with a firm type dummy. 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 5: 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	0.0218**	-0.00259	0.0000215	-0.00187
	(0.00739)	(0.00301)	(0.0767)	(0.00473)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	217	2564	266	6770
Adjusted R Squared	0.774	0.838	0.620	0.743

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 in the main sample. See Section 3 for a description of the underlying data.

Table 6: Effect of Conducive Weather on Local Unrest

	(1) Unrest, t	(2) Unrest, t	(3) Unrest, t	(4) Unrest, t	(5) Unrest, t
Conducive Weather, t	0.105***	0.0896***	0.101***	0.102***	0.0778***
	(0.0221)	(0.0236)	(0.0305)	(0.0240)	(0.0238)
ODA Contract Stock, t-1	-0.00845	-0.00457	-0.00854	-0.00903	-0.00559
	(0.0209)	(0.0191)	(0.0207)	(0.0208)	(0.0190)
Conducive Weather, t*ODA Contract Stock, t-1	-0.0481**	-0.0416*	-0.0478**	-0.0422*	-0.0377**
	(0.0201)	(0.0229)	(0.0209)	(0.0240)	(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*a*). 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 7: Effect of Unrest on Global ODA Allocation, Main Estimates

	(1) # of ODA Projects	(2) # of ODA Projects	(3) # of ODA Projects	(4) # of ODA Projects	(5) # of ODA Projects
Unrest, t-1	0.0207***	0.0204***	0.0192***	0.0222***	0.0206***
	(0.00481)	(0.00392)	(0.00429)	(0.00487)	(0.00460)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Continent-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	18.58	27.49	20.11	20.97	20.22

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. 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 period I study.

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*a*), repression, wage concessions, welfare payments (Pan, 2020), legal reform, stimulus through domestic public infrastructure construction (Cong et al., 2019), SOE employment (Wen, 2023), 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.4 provides examples of unrest events in the data.

A.2. 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, 2011*a*). The projects in my sample are classified as ODA-like or OOF-like by AidData. I also treat projects classified by AidData as "Vague" that have a development purpose as *aid*, as these projects contain at least a partial ODA component. The inclusion of these 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 outcome variables from 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 Chinese government does not provide disaggregated data on its foreign aid and other development finance. I use AidData's Geocoded Global Chinese Official Finance Database, Version 2.0 (Custer et al., 2021; Dreher et al., 2022), to construct a project-level dataset on Chinese aid projects. AidData provides the most comprehensive and widely used public database on Chinese projects. AidData systematically collects data on Chinese projects by scraping tens of thousands government reports, news articles, policy documents and other sources. Details on the scope and methodology of the data can be found at https://www.aiddata.org/methods/tracking-underreported-financial-flows.

I include all projects from the database that are financed by a Chinese government agency or bank, involve a Chinese private or state-owned contractor, are in a low- or

middle-income country, have not been canceled or suspended, and are recommended by AidData for research. The data include the year of commitment, financial value, recipient country, type of finance, sector, funding agency, and a short description for each project.

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 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 2156 projects (1324 ODA-like and 832 OOF-like projects) in 103 countries committed between 2000 and 2017. 56% are classified as ODA-like (aid) and include grants, concessional loans, or other financing. The average project is worth 117 million USD (47 million USD for ODA-like projects and 220 million USD for OOF-like projects, all in constant 2017 USD). 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%). Most projects implemented by the Chinese firms are in the form of hard infrastructure, including power plants, transmission lines, railroads, highways, ports, telecommunication networks, schools, and hospitals. Online Appendix Tables A.1 and A.2 list the largest ODA and OOF projects in the sample as per AidData records.

B.2. Panel of Contractors

While AidData provides great detail, including the names of involved Chinese contractors, the firms listed by AidData are often conglomerates or holding companies with multiple subsidiaries across China. This has prevented researchers from linking data on Chinese aid projects to Chinese administrative firm data at the subsidiary level, and from linking Chinese contractors to variation at the prefecture level. To address this challenge, for each project I systematically identify the domestic subsidiary that implemented the project. I describe the process below.

The starting point of the firm-year panel is a 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. I minimally clean the data by removing duplicate entries and entries that do not constitute firm names. Importantly, the list is at the same level of aggregation as Chinese administrative data.

I next obtain data on the basic characteristics of these firms, including their location, ownership, and shareholders, from the Chinese credit registry. The data are provided by Liu et al. (2022), who scraped the data from the public *Tianyancha* website. Tianyancha is a private company that collects business registration information for the universe of Chinese firms in the last four decades.[49] More than 95% of all firms from the MOFCOM list can be matched based on firm name. The resulting list includes 4544 construction firms eligible to bid on Chinese aid projects.

I then assign the projects from the AidData 2.0 database to a contractor in the MOFCOM database. 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.[50] 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 thousands of websites of all 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.[51] 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.

The resulting main variables are the number and financial value of contracts committed to a firm in a year. The number of contracts is the preferred outcome variable, as it is less likely to suffer from measurement error than the financial value. Information on the financial value is missing for 13% of all projects in the sample. 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.

B.3. Firm-level Data

I complement the firm panel with several administrative datasets from China.

[49] I thank Shaoda Wang and Wenwei Peng for access to and assistance with the data.

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

[51] Firms 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.

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.[52]

Following Liu and Mao (2019), I set as missing entries with non-positive values in the main variables used in the working sample (number of employees and operating income) and trim the top 1% and bottom 1% percentiles of all entries in the data. I link the NTSD data with my main 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 2835 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 Online Appendix Table A.18 was scraped from the Chinese Government Procurement website https://www.ccgp.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 description. Since the description is unstructured text, I extracted the financial values of the procurement contracts using ChatGPT. I trim the value of procurement contracts at the top 1% and bottom 1% percentiles to address implausible data entries.

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 4544 firms, of which 1182 are central SOEs and their subsidiaries.[53] 421 firms supplied Chinese aid projects at least once during my sample period, of which 232 are central SOEs and their subsidiaries. Table A.3 in the Online Appendix provides firm-level descriptive statistics. The average firm was awarded

[52]The 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).

[53]Other 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.

0.01 aid contracts worth 0.51 million USD per year (0.26 projects worth 9.01 million USD, conditional on getting a contract during the sample period), has 1387 employees, and 251 million USD in operating income (constant 2017 USD). The 4544 firms are located in 235 different prefectures across China. Figure A.3 shows the spatial distribution of the firms across China.

B.4. Prefecture-level Data

Unrest. I combine data on labor unrest in China from two sources: the *China Strikes Crowdmap* for 2003 to 2011 (https://chinastrikes.crowdmap.com/feeds?page=1762&l=ps&l=fa), and the *China Labour Bulletin* for 2012 to 2016 (https://clb.org.hk/).[54] See Campante, Chor and Li (2023) and Qin, Strömberg and Wu (2019) for a description of the latter data source. The 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 manual checks, which I shared and verified with the CLB team.

China City Statistical Yearbooks. I use data on several prefecture-year level outcome and control variables from the China City Statistical Yearbooks, 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. The data was obtained from the NUS library in August 2022. 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 2 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*a*), including temperature bins, precipitation, fog, rain, hail, thunder, maximum wind speed, visibility, etc. Following Beraja et al. (2023*a*), 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). The data was obtained from

[54] I thank Manfred Elfstrom for providing the *China Strikes* data. CLB is an NGO based in Hong Kong. The CLB data generally follow the same scope and method as *China Strikes*.

the NUS library in November 2023. I aggregate the data to calculate the total export quantity and value at the Chinese prefecture-destination country-year level for the analysis in Table A.23.

The resulting panel includes 235 prefectures. Table A.5 in the Online Appendix provides prefecture-level descriptive statistics. The average prefecture is awarded 0.23 aid contracts worth 8.02 million USD per year (0.94 projects worth 32.57 million USD, conditional on getting a contract during the sample period) and has 2.51 labor unrest events per year.

Appendix C. Further Robustness Checks

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 main sample includes all prefectures with aid contractors (firms that contracted aid projects in 2004–2017). Table A.15 shows the main result for a 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 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 2 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 $\text{unrest}_{p,t}$ variable in Equation 2 with a binary variable that equals 1 if the number of unrest events in a prefecture-year is above the 90^{th} percentile of the prefecture's unrest distribution over time, and 0 otherwise. This results in each prefecture being treated only once. I then re-estimate specification 2 with this binary treatment, using both OLS and the Callaway and Sant'Anna (2021) estimator.

As Appendix Table A.17 shows, the estimated effect of unrest on aid contract allocation remains highly 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 2 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, Online Appendix Table A.13, 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.11 and A.12 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. Impacts of Foreign Aid on Recipient Countries

D.1. Details on the 2SLS Specification

Estimating the effects of foreign aid on recipient outcomes is typically challenging due to reverse causality and joint determination. To help understand the identification challenges, first consider a simple regression of country i's outcome on the level of aid received by China s years prior:

$$\mathrm{Y}_{i,t} \;=\; \beta\, \mathrm{aid}_{i,t-s} + \;\mathbf{X}_{i,t-s}\Gamma \;+\; \alpha_i \;+\; \delta_{rt} \;+\; \epsilon_{i,t}, \tag{A1}$$

where $\mathrm{Y}_{i,t}$ is an outcome of country i in year t (e.g., conflict) and $\mathrm{aid}_{i,t-s}$ is the number of Chinese aid projects received by country i in year t-s. $\mathbf{X}_{i,t-s}$ denotes a vector of controls introduced further below. α_i and δ_{rt} denote the country and region-year fixed effects.

β is the effect of an additional Chinese aid project on the recipient country's outcome s years later. However, the coefficient captures reverse causal effects if China allocates aid based on recipient outcomes. Alternatively, aid and the outcome in the recipient country could be jointly determined by a third factor, such as a change in the political regime of the recipient country, which could bias $\hat{\beta}$ in either direction.

To address these endogeneity issues, I use the shift-share instrument $Z_{i,t-1}$ introduced in Section 5 to generate exogenous variation in the amount of aid received by a country in a given year. The first stage is analogous to Equation 3. The second stage is analogous to Equation A1 but replaces aid with aid predicted by the first stage. Again, I follow

Borusyak, Hull and Jaravel (2022) (BHJ) and estimate the specification at the prefecture-year (shock) level after residualizing the country and region-year fixed effects:

$$\tilde{\mathrm{Y}}_{p,t} = \beta \widehat{\tilde{\mathrm{aid}}}_{p,t-s} + X'_{p,t-1-s}\Gamma + \alpha_p + \delta_{prov,t} + \zeta_p t + \epsilon_{p,t} \quad \text{(A2)}$$

$$\tilde{\mathrm{aid}}_{p,t} = \gamma \, \mathrm{unrest}_{p,t-1} + X'_{p,t-1}\Theta + \alpha_p + \delta_{prov,t} + \zeta_p t + \epsilon_{p,t}. \quad \text{(A3)}$$

Following Borusyak, Hull and Jaravel (2022), this instrument is excludable under the assumption that the shifters (unrest shocks) are orthogonal to future recipient countries outcomes, conditional on the controls and fixed effects. The shares (existing country-prefecture connections) are again allowed to be endogenous.

Causal identification of the IV estimates assumes that the instrument affects outcomes of the recipient countries only through the provision of Chinese aid. To address the possibility that the instrument at $t-1$ is correlated with the contemporaneous conditions of the recipient country, I control for the recipient country outcome at $t-1$. A second potential violation of the exclusion restriction occurs if unrest in a prefecture is related not only to more aid flowing to countries more connected to the prefecture, but also to other financial flows. To address this possibility, Table A.23 columns (2) to (4) present the results of 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.

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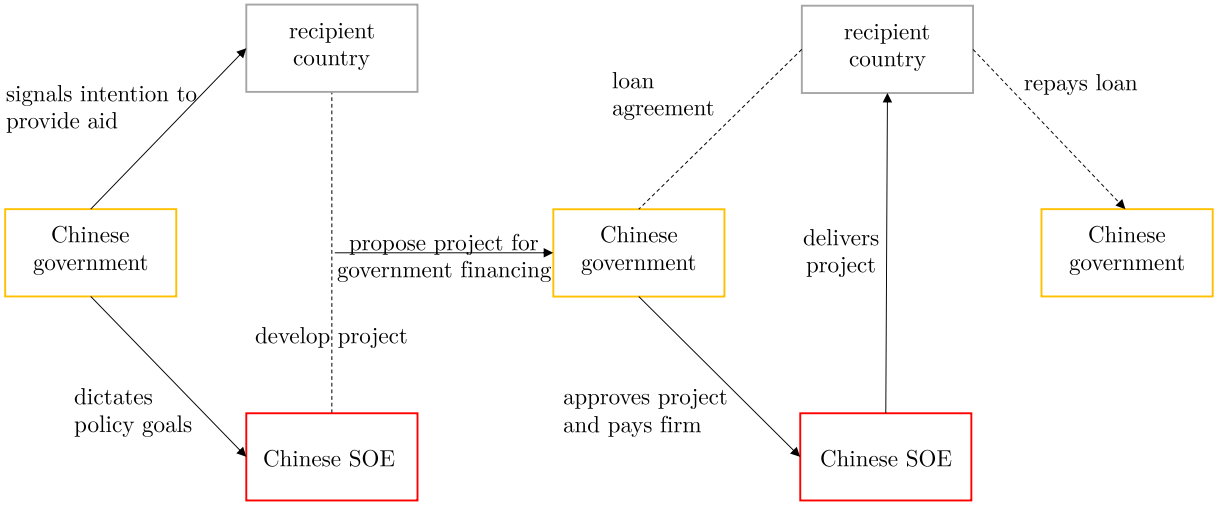
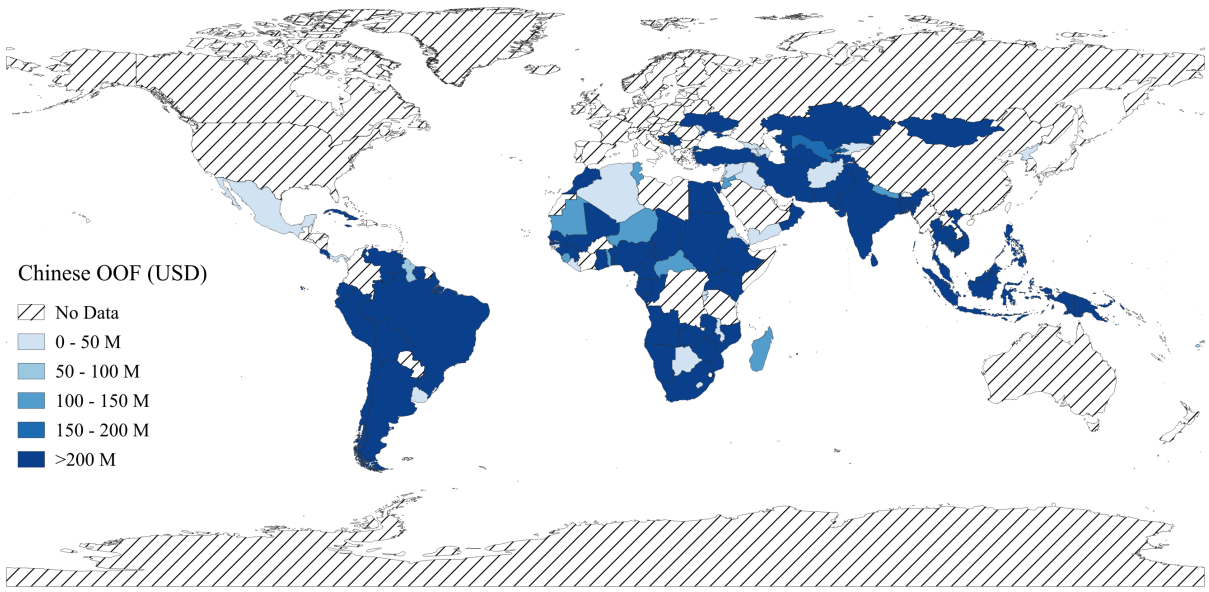
Online Appendix Figures and Tables

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



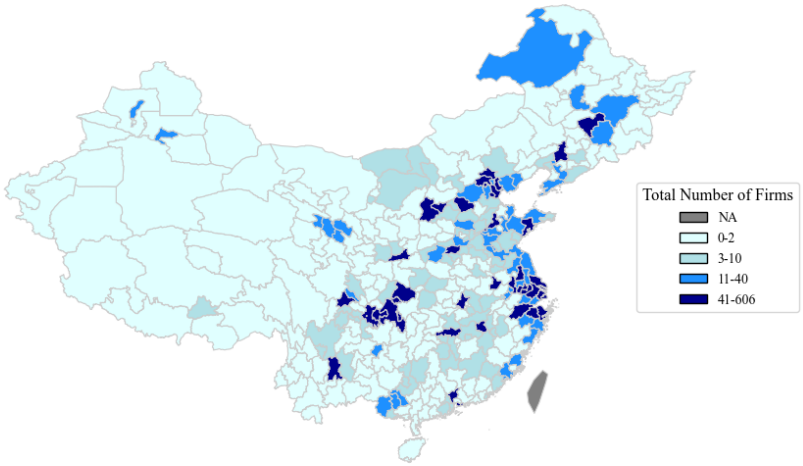
Note: This figure schematically illustrates the Chinese foreign aid project allocation process. Source: Author's illustration, based on Bräutigam (2011*b*), Gu, Chen and Zhang (2014) and Zhang and Smith (2017).

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



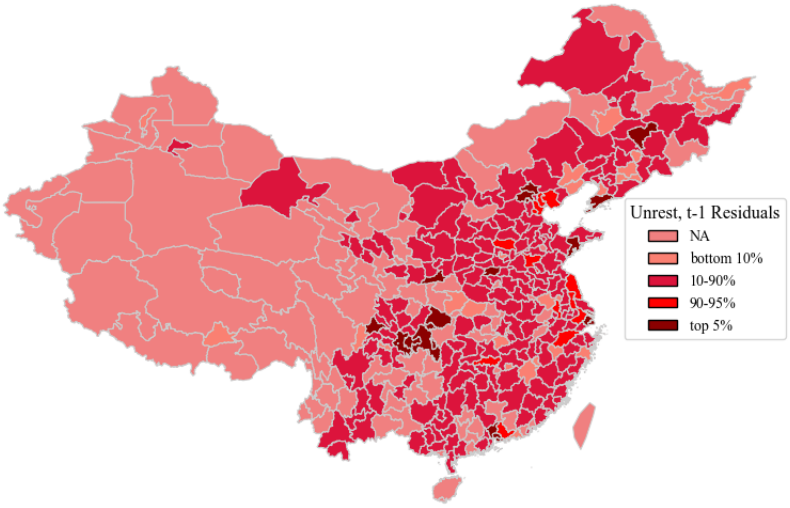
Note: This figure shows the total financial value of Chinese OOF projects committed to low- and middle-income countries and contracted by Chinese firms in the baseline estimation sample between 2004 and 2017. Financial amounts are in constant 2017 USD. Source: Author's illustration based on the data described in Section 3.

Figure A.3: Distribution of Firms Across China



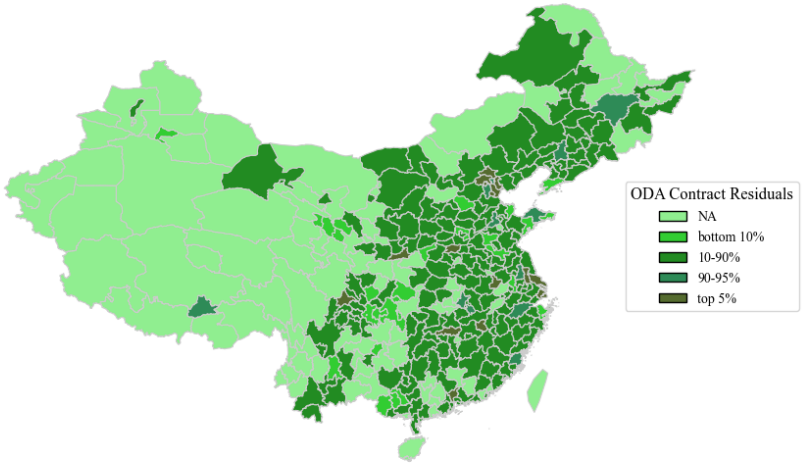
Note: This map shows the number of firms in the sample in each prefecture. Source: Author's illustration based on the data described in Section 3. The map contains the territories claimed by China as of 2024, but only data for Mainland China is available and included.

Figure A.4: Distribution of Lagged Unrest Events Across China in 2017, Residualized



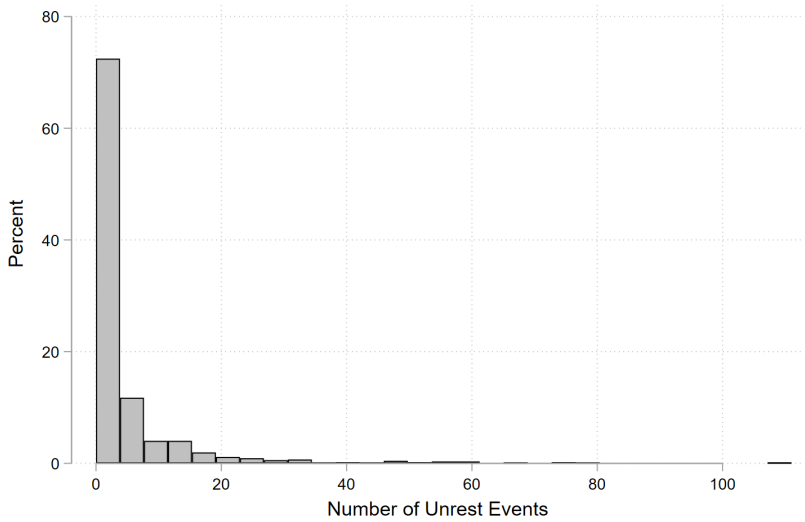
Note: This map shows the lagged number of labor unrest events in each Chinese prefecture in 2017, residualized on the prefecture fixed effects. Source: Author's illustration based on data from the *China Strikes Crowdmap* and *China Labour Bulletin*. See Section 3 for a detailed description of the underlying data. The map contains the territories claimed by China as of 2024, but only unrest data for Mainland China is available and included.

Figure A.5: Distribution of ODA Contracts Across China in 2017, Residualized



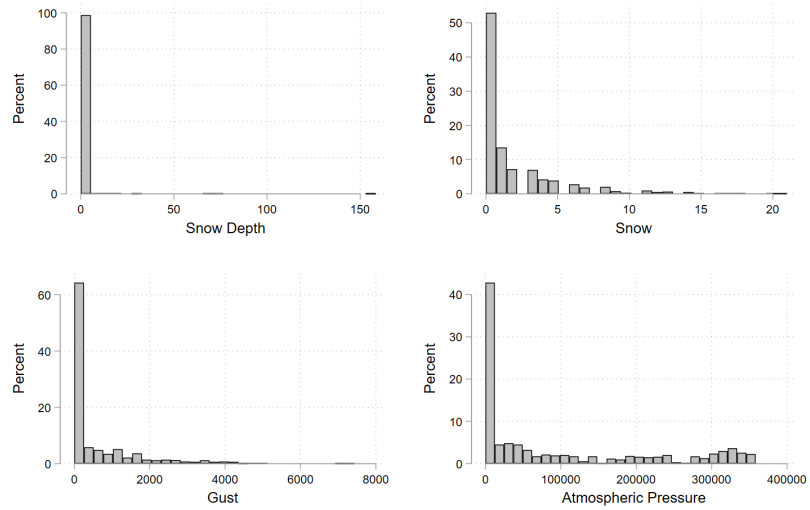
Note: This map shows the number of Chinese ODA contracts allocated to firms in each Chinese prefecture in 2017, residualized on the prefecture fixed effects. Source: Author's illustration based on data from the *China Strikes Crowdmap* and *China Labour Bulletin*. See Section 3 for a detailed description of the underlying data. The map contains the territories claimed by China as of 2024, but only aid data for Mainland China is available and included.

Figure A.6: Distribution of the Number of Unrest Events per Prefecture and Year



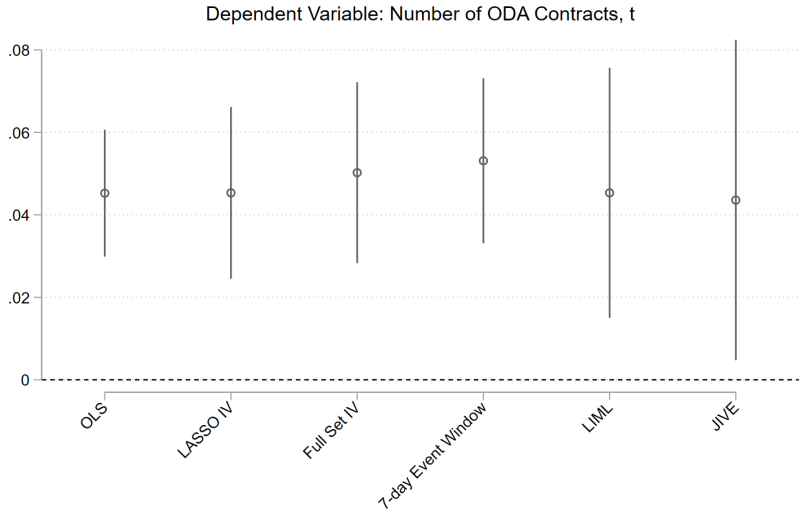
Note: This histogram shows the distribution of the number of local unrest events per prefecture and year in the main sample. See Section 3 for a description of the underlying data.

Figure A.7: Distribution of Weather Shocks



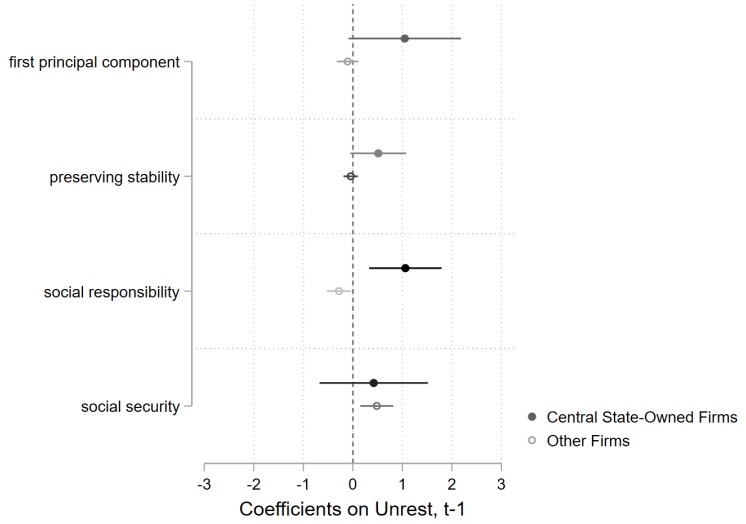
Note: This figure shows the distribution of the weather variables that are part of the selected instruments in the LASSO IV first stage. Source: Author's illustration based on the data described in Section 3.

Figure A.8: Effect of Local Unrest on ODA Contract Allocation, Alternative Estimators



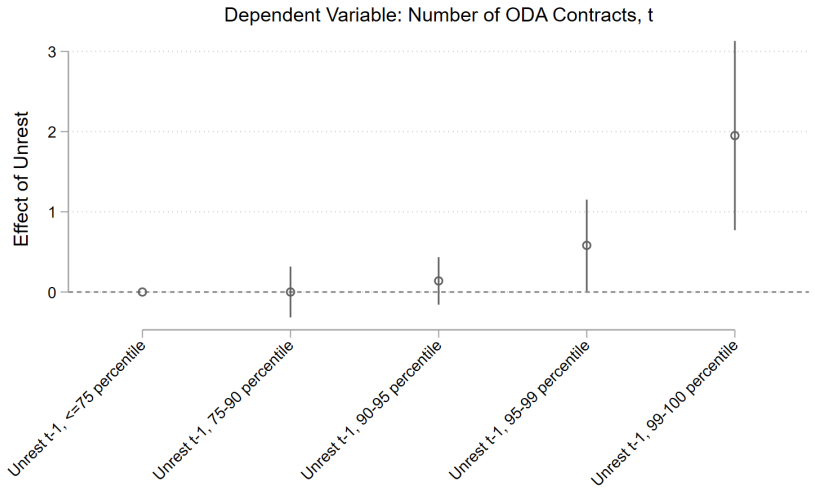
Note: The dots show the coefficients from regressions of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the number of labor unrest events in that prefecture, controlling for prefecture and province-year fixed effects and prefecture-specific linear time trends, using alternative estimators. The vertical lines show 90% confidence intervals. The unit of observation is a prefecture-year. Coefficient (1) is based on the OLS estimator. Coefficient (2) is based on the LASSO IV estimator described in the text. 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. Coefficient (3) is based on an IV estimator that includes all candidate instruments instead of only those selected by LASSO. Coefficient (4) is based on the LASSO IV estimator but interacts weather variables with whether an unrest event occurred elsewhere in China within a 7-day window, instead of on the same day. Coefficient (5) is based on a LASSO IV specification estimated by LIML. Coefficient (6) is based on a LASSO IV specification estimated by JIVE. 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



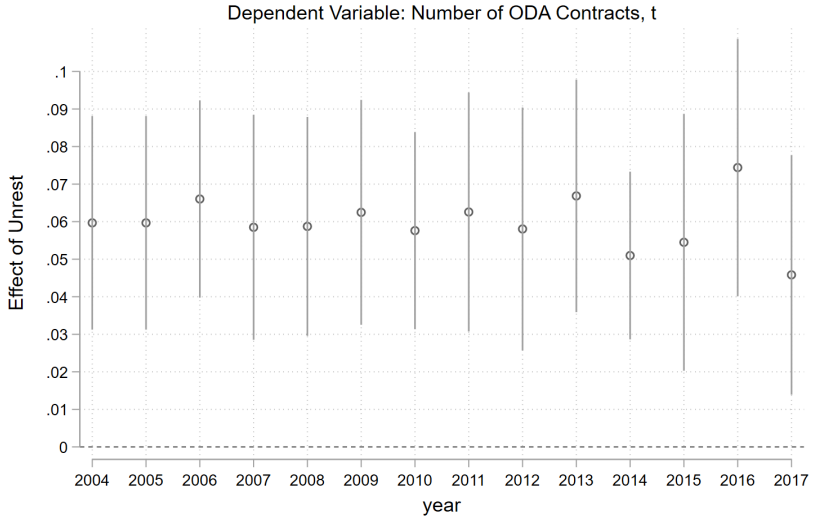
Note: Each dot shows the coefficient from regressions of the count of the phrase labeled on the y-axis in firms' annual reports, divided by the total number of words in the report, on the lagged number of labor unrest events in the firm's prefecture, controlling for firm and province-year fixed effects, 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 affiliates that are also in the main sample. 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



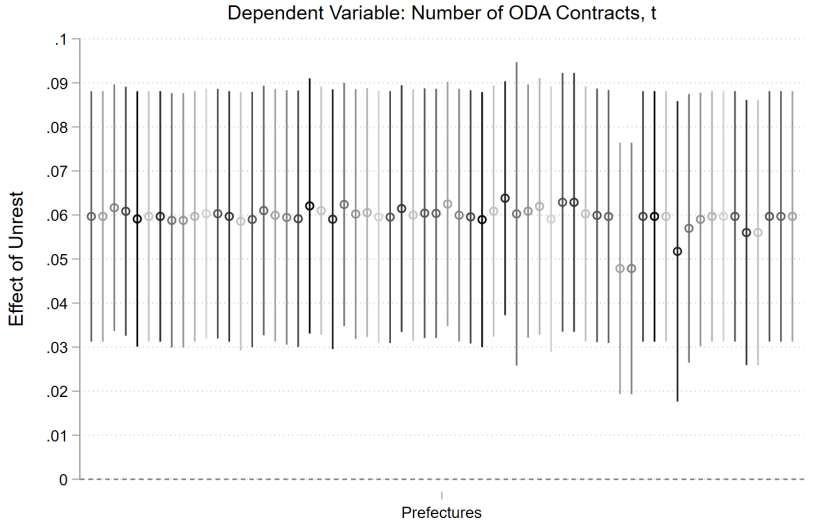
Note: The dots show the coefficients from a regression of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the levels of unrest intensity in that prefecture shown on the x-axis, controlling for prefecture and province-year fixed effects, and for prefecture-specific linear time trends. Unrest intensity in a prefecture is calculated as the number of unrest events relative to the prefecture's unrest distribution over the years 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 Local Unrest on ODA Contract Allocation, Dropping Years



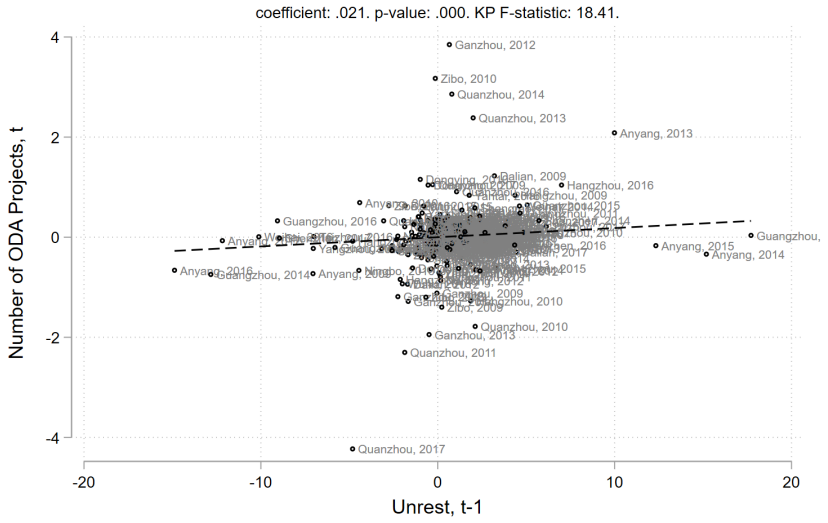
Note: The dots show the coefficients from regressions of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the number of labor unrest events in that prefecture in the previous year, controlling for prefecture and province-year fixed effects and prefecture-specific linear time trends. Each regression drops one of the years from the main 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.12: Effect of Local Unrest on ODA Contract Allocation, Dropping Prefectures



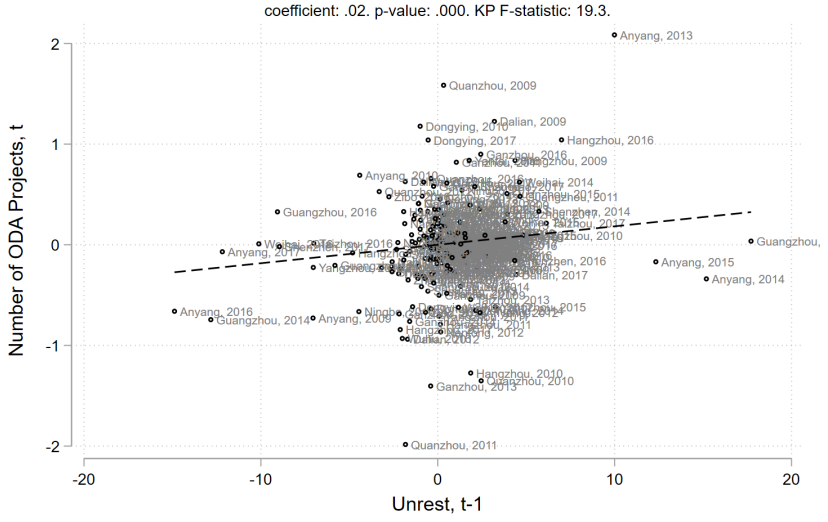
Note: The dots show the coefficients from regressions of the number of Chinese ODA contracts allocated to firms in a given prefecture and year on the number of labor unrest events in that prefecture in the previous year, controlling for prefecture and province-year fixed effects as well as prefecture-specific linear time trends. Each regression drops one of the prefectures from the main 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.13: Effect of Unrest on Global ODA Allocation, Residual Plot



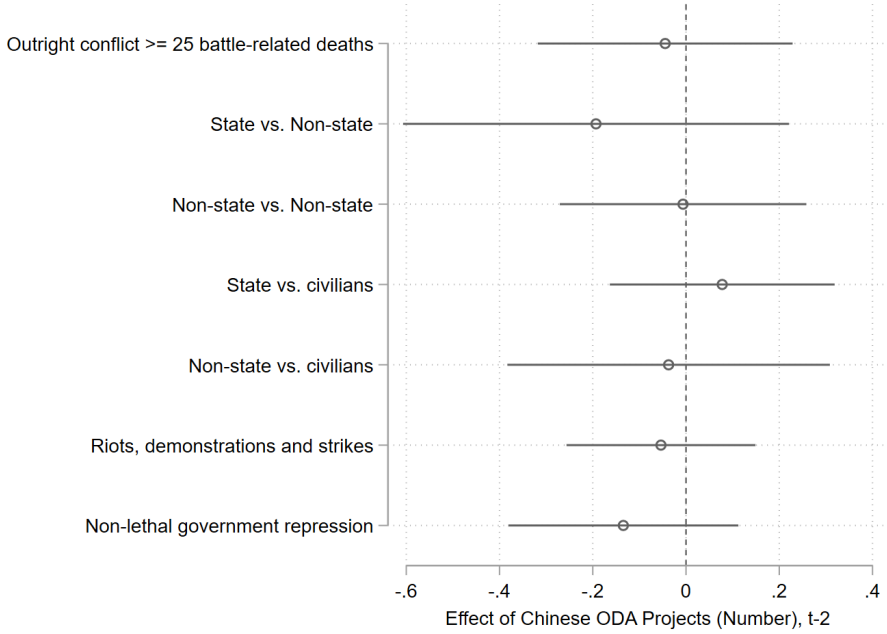
Note: The dashed line shows the line of fit from a regression of the number of Chinese ODA projects received by countries in year t on unrest shocks in Chinese prefectures in year $t-1$. The regression is estimated at the shock level (prefecture-year), weighted by countries' exposure to each Chinese 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.

Figure A.14: 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.

Figure A.15: Effect of Chinese ODA on Political Instability in Recipient Countries (IV)



Note: Each dot shows the coefficient estimate of a separate IV regression of the measure of conflict incidence shown on the left at t on the number of Chinese ODA projects received by the country at $t-2$, where the number of ODA projects is instrumented by weighted unrest shocks in Chinese prefectures at $t-3$. Outcomes (1) to (5) are based on data from UCDP (Uppsala University, 2024) and Outcomes (6) and (7) are based on data from ACLED (Raleigh, Kishi and Linke, 2023). The outcome variables are defined as follows: (1) an indicator of whether there is at least one conflict with >= 25 battle-related deaths in the country-year; (2) is an indicator of whether there is at least one case of state-based violence against non-government actors in the country-year; (3) is an indicator of whether there is at least one case of non-government violence against other organized non-state groups in the country-year; (4) is an indicator of whether there is at least one case of one-sided violence versus civilians by the government in the country-year; (5) is an indicator of whether there is at least one case of one-sided violence versus civilians by non-government actors in the country-year; (6) is an indicator of whether there is at least one protest event in the country-year; (7) an indicator of whether there is at least one government repression incidence in the country year. The regressions are 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 the prior year. 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 regressions control for prefecture and province-year fixed effects and prefecture-specific linear time trends, as well as for recipient population and the outcome variable in the base period. The horizontal bars indicate 95% confidence intervals. Standard errors are clustered at the prefecture level. See Section 3 for a description of the underlying data.

Table A.1: The Largest Chinese ODA Projects by Financial Value

Country	Year	Amount	Short Description	Contractor
Iran	2017	1818	Abadan Refinery	Sinopec
Iran	2017	1500	Tehran-Mashhad High-Speed Electrification Upgrading	China National Machinery Import & Export Corporation
Venezuela	2006	1452	Social Housing	CITIC Construction
Sudan	2003	1286	Merowe Hydroelectric Power Plant	Powerchina, CIWEC, SinoHydro, STECOL, Harbin Electric
Ethiopia	2013	1253	Addis Ababa-Djibouti Railway	CCECC, China Railway
Kazakhstan	2009	1152	Aromatic Hydrocarbons Complex	Sinopec

Note: This table shows the largest Chinese ODA projects implemented by firms in the sample. The contractors listed are the parent companies of the implementing subsidiaries for ease of exposition. Financial amounts are in millions of constant 2017 USD. See Section 3 for details on the underlying data.

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

Country	Year	Amount	Short Description	Contractor
Brazil	2009	9126	Santos Basin Oil Exploration	Sinopec
Malaysia	2016	4870	East Coast Rail Link	China Communications Construction
Turkmenistan	2013	3984	Galkynysh Gas Field Phase II	China National Petroleum Corporation
Turkmenistan	2009	3911	Galkynysh Gas Field Phase I	China National Petroleum Corporation
Kazakhstan	2009	3911	JSC Mangistaumunaigas Acquisition	China National Petroleum Corporation
Venezuela	2013	3901	Sinovensa Oil Field Development	China Huanqiu Contracting & Engineering, China National Petroleum Corporation

Note: This table shows the largest Chinese OOF projects implemented by firms in the sample. The contractors listed are the parent companies of the implementing subsidiaries for ease of exposition. Financial amounts are in millions of constant 2017 USD. See Section 3 for details on the underlying data.

Table A.3: Descriptive Statistics: Firm-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Contracts	48999	0.02	0.23	0	11
# of Yearly Chinese ODA Contracts	48999	0.01	0.17	0	7
# of Yearly Chinese OOF Contracts	48999	0.01	0.13	0	9
Financial Value of Yearly Chinese Contracts (mn)	48999	2.31	42.2	0	2945.5
Financial Value of Yearly Chinese ODA Contracts (mn)	48999	0.51	12.26	0	1221.56
Financial Value of Yearly Chinese OOF Contracts (mn)	48999	1.8	38.86	0	2933.52
# of Employees*	11565	1387	2987	7	28219
Firm Revenue (mn)*	11525	251.07	447.12	0.23	4055.16

Note: This table reports descriptive statistics for firm-year level variables for firms in the main sample, 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.3 for a description of the data sources.

Table A.4: 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 2016 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.5: Descriptive Statistics: Prefecture-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Contracts	3126	0.37	1.38	0	24
# of Yearly Chinese ODA Contracts	3126	0.23	0.89	0	9
# of Yearly Chinese OOF Contracts	3126	0.14	0.72	0	19
Financial Value of Yearly Chinese Contracts (mn)	3126	36.25	215.63	0	5861.09
Financial Value of Yearly Chinese ODA Contracts (mn)	3126	8.02	52.98	0	1221.91
Financial Value of Yearly Chinese OOF Contracts (mn)	3126	28.22	189.55	0	5155.84
# of Labor Unrest Events	3126	2.51	6.61	0	111
# of Unrest Events in Neighboring Prefectures	3112	13.07	24.62	0	283
# of Main Sector Labor Unrest Events	3126	1.67	5.08	0	96
# of Service Sector Labor Unrest Events	3126	0.77	1.8	0	22
# of Labor Unrest Events with Repressive Gov. Responses	3126	0.66	2.33	0	50
# of Labor Unrest Events with Other Gov. Responses	3126	0.26	0.83	0	10
# of Labor Unrest Events with Unknown Gov. Responses	3126	1.58	4.06	0	58
Population (mn)	3126	4.53	2.5	0.17	14.35
GDP (bn)	3122	28.24	32.54	1.06	332.82
GDP per Capita	3112	6628	4839	611	73917
GDP Growth	3112	11.7	4.19	–15.95	37.69
Average Wage of Employees in Urban Areas	3113	6093	2386	1720	30322
Local Government Expenditure (bn)	3125	3.72	4.08	0.07	67.98
Local Government Income (bn)	3126	2.24	3.47	0.01	49.31
# of Procurement Contracts	1645	70.95	276.15	0.00	4138.00
Financial Value of Procurement Contracts (mn)	1645	98.32	387.28	0.00	7522.12

Note: This table reports descriptive statistics for prefecture-year level variables in the main sample, 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 2016 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. Financial values are in constant 2017 USD. See Sections 3 and B.4 for a description of the data sources.

Table A.6: 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	0.0444***	0.0587***	0.0497***	0.0449***	0.0655***
	(0.0159)	(0.0182)	(0.0157)	(0.0155)	(0.0165)
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	0.474	0.479	0.475	0.472	0.481

Note: This table reports the coefficients of regressions of the log of 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.7: 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	0.00264	0.00129	0.00179	0.00213
	(0.0177)	(0.0175)	(0.0185)	(0.0176)	(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.8: 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	-0.00744	-0.00920	-0.00839	-0.00656
	(0.0168)	(0.0164)	(0.0174)	(0.0167)	(0.0170)
Unrest, t	0.00812	0.0115	0.00879	0.00710	0.0113
	(0.0105)	(0.0101)	(0.0108)	(0.00987)	(0.0102)
Unrest, t-1	0.0578***	0.0599***	0.0585***	0.0569***	0.0600***
	(0.0158)	(0.0146)	(0.0165)	(0.0140)	(0.0144)
Unrest, t-2	0.00960	0.0200	0.00951	0.0106	0.0194
	(0.0182)	(0.0193)	(0.0183)	(0.0171)	(0.0199)
Unrest, t-3	-0.0347	-0.0197	-0.0345	-0.0223	-0.0149
	(0.0278)	(0.0260)	(0.0278)	(0.0384)	(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.9: Effect of Local Unrest on ODA Contract Allocation, Firm-level Controls

	(1)	(2)	(3)	(4)	(5)
	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts	# of ODA Contracts
Unrest, t-1	0.0245**	0.0253**	0.0207	0.0260**	0.0220
	(0.0113)	(0.0122)	(0.0128)	(0.0115)	(0.0136)
# of Employees, t-1 (per thousand)	-0.0137**	-0.0139**	-0.0137**	-0.0142**	-0.0141**
	(0.00670)	(0.00670)	(0.00672)	(0.00668)	(0.00672)
Firm Revenue, t-1 (million)	0.0206	0.0208	0.0209	0.0218	0.0221
	(0.0292)	(0.0293)	(0.0291)	(0.0293)	(0.0293)
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	1171	1171	1171	1171	1171
Adjusted R Squared	0.420	0.419	0.419	0.419	0.418

Note: This table reports the coefficients of regressions of the number of ODA contracts allocated to a firm in a given Chinese prefecture and year on the lagged number of labor unrest events in that firm's prefecture and year, controlling for firm and province-year fixed effects and prefecture-specific linear time trends, as well as for the controls indicated in the table. The unit of observation is a firm-year. The sample includes all firms that contracted at least one ODA project during the sample period and for which firm-level control variables from the 2007-2015 tax survey data are available. See Section 3 for a description of the underlying data.

Table A.10: Effect of Local Unrest on ODA Contract Allocation, Firm Level

	(1) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1	0.0245**	0.0251**	0.0206	0.0258**	0.0217
	(0.0113)	(0.0121)	(0.0127)	(0.0114)	(0.0135)
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	1171	1171	1171	1171	1171
Adjusted R Squared	0.420	0.419	0.420	0.420	0.418

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 firm and province-year fixed effects and prefecture-specific linear time trends, as well as for the controls indicated in the table. The unit of observation is a firm-year. The sample includes all firms that contracted at least one ODA project during the sample period and for which firm-level control variables from the 2007-2015 tax survey data are available. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.

Table A.11: LASSO IV First Stage

	(1) Unrest,t-1	(2) Unrest,t-1	(3) Unrest,t-1	(4) Unrest,t-1	(5) Unrest,t-1
(Snow Depth*Unrest elsewhere,t-1)^2	-0.0179***	-0.0145***	-0.0182***	-0.0184***	-0.0125***
	(0.000619)	(0.00125)	(0.00344)	(0.00119)	(0.00279)
Snow*Unrest elsewhere,t-1* Pressure*Unrest elsewhere,t-1	-0.0505	-0.0418	-0.0494	-0.0504	-0.0428
	(0.0590)	(0.0620)	(0.0580)	(0.0592)	(0.0577)
Gust*Unrest elsewhere,t-1* Pressure*Unrest elsewhere,t-1	0.277***	0.231**	0.284***	0.271**	0.226**
	(0.0994)	(0.102)	(0.102)	(0.102)	(0.0892)
Snow*Unrest elsewhere,t-1* Snow*Unrest elsewhere,t-1	-0.0224	-0.0248	-0.0242	-0.0223	-0.0229
	(0.0220)	(0.0186)	(0.0319)	(0.0217)	(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, following Beraja et al. (2023*a*). 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 Growth	(2) Total GDP	(3) Government Revenue	(4) Average Wage
Unrest, t-1	0.128	0.0160	0.0184	0.0420
	(0.0786)	(0.0169)	(0.0154)	(0.0268)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	645	645	645	645
Adjusted R Squared	0.813	0.989	0.979	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, prefecture-specific linear time trends, and the controls indicated in the table. 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, by Type of Unrest

	(1) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts
Unrest, t-1	0.0513***	0.0504***		
	(0.0114)	(0.0109)		
# of Unrest Events in Neighboring Prefectures		0.000276		
		(0.000990)		
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	0.612	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 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.14: 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***	0.0833***	0.0755***	0.0869***	0.0650***
	(0.0158)	(0.0186)	(0.0166)	(0.0169)	(0.0159)
Unrest, t-1	0.0711***	0.0493**	0.0587***	0.0773***	0.0365*
	(0.0227)	(0.0195)	(0.0191)	(0.0230)	(0.0204)
Conducive Weather, t*Unrest, t-1	0.00311	0.00376	0.0265	0.00275	0.0329
	(0.0165)	(0.0157)	(0.0174)	(0.0180)	(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*a*). 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.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	0.0197**	0.0199**	0.0197**	0.0202**	0.0201**
	(0.00772)	(0.00788)	(0.00780)	(0.00805)	(0.00808)
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	3140	3140	3140	3140	3140
Adjusted R Squared	0.659	0.659	0.659	0.659	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) # of ODA Contracts	(2) # of ODA Contracts	(3) # of ODA Contracts	(4) # of ODA Contracts	(5) # of ODA Contracts
Unrest, t-1	0.0253	0.0426***	0.0378***	0.0513***	0.0619***
	(0.0154)	(0.00865)	(0.0130)	(0.0114)	(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) # of ODA Contracts	(2) # of ODA Contracts	(3) Log Value of ODA Contracts	(4) Log Value of ODA Contracts
Above 90 Percentile Unrest, t-1	0.126**	0.260**	0.206**	0.296**
	(0.0547)	(0.111)	(0.0804)	(0.141)
Baseline FEs	Yes	Yes	Yes	Yes
Observations	3347	3347	3347	3347
Method	OLS	Callaway & Sant'Anna (2021)	OLS	Callaway & Sant'Anna (2021)

Note: This table reports the coefficients of regressions of the number or 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 if the number of labor unrest events in the prefecture and year is above the 90^{th} percentile of the prefecture's distribution in the sample. Columns (1) and (3) are estimated by OLS. Columns (2) and (4) are estimated using the Callaway and Sant'Anna (2021) estimator. 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) # of Procurement Contracts	(2) # of Procurement Contracts	(3) # of Procurement Contracts	(4) # of Procurement Contracts	(5) # of Procurement Contracts
Unrest, t-1	0.107	0.104	0.115*	0.0862*	0.0862*
	(0.0688)	(0.0677)	(0.0660)	(0.0493)	(0.0483)
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	0.875	0.877	0.878

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) Log Value of Procurement Contracts	(2) Log Value of Procurement Contracts	(3) Log Value of Procurement Contracts	(4) Log Value of Procurement Contracts	(5) Log Value of Procurement Contracts
Unrest, t-1	0.294**	0.295**	0.299**	0.283**	0.284**
	(0.121)	(0.121)	(0.124)	(0.120)	(0.123)
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	0.639	0.639	0.639	0.640	0.639

Note: This table reports the coefficients of regressions of the log 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: Descriptive Statistics: Country-level Variables

	Count	Mean	SD	Min	Max
# of Yearly Chinese Projects	870	1.55	2.60	0.00	31.00
# of Yearly Chinese ODA Projects	870	0.94	1.46	0.00	10.00
# of Yearly Chinese OOF Projects	870	0.61	1.83	0.00	27.00
Financial Value of Yearly Chinese Projects (mn)	870	179.67	559.92	0.00	6709.27
Financial Value of Yearly Chinese ODA Projects (mn)	870	43.06	151.78	0.00	2420.18
Financial Value of Yearly Chinese OOF Projects (mn)	870	136.62	504.07	0.00	6427.57
Log FDI Inflow	816	19.82	2.60	0.00	24.41
Log Chinese Imports	870	13.53	1.86	8.77	18.07
Log OECD-DAC Aid	857	19.37	1.49	14.52	22.70
Log Total Imports	675	22.78	1.53	19.22	26.89
Conflict with $\geq$ 25 Battle-related Deaths	590	0.34	0.48	0.00	1.00
State vs. Non-state Conflict	590	0.41	0.49	0.00	1.00
Non-state vs. Non-state Conflict	590	0.24	0.43	0.00	1.00
State vs. Civilians Conflict	590	0.25	0.44	0.00	1.00
Non-state vs. Civilians Conflict	590	0.26	0.44	0.00	1.00
Riots, Demonstrations, and Strikes	870	0.51	0.50	0.00	1.00
Non-lethal Government Repressions	870	0.46	0.50	0.00	1.00

Note: This table reports descriptive statistics for country-year level variables for the observations in the main estimation sample, covering 2008 to 2021. All variables other than the number and value of projects and the data on conflict are from the World Bank Development Indicators (World Bank, 2022). Financial values are in constant 2017 USD. See Section 3 for a description of the underlying data.

Table A.21: 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***	0.137***	0.142***	0.150***	0.148***
	(0.0247)	(0.0260)	(0.0255)	(0.0344)	(0.0334)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Continent-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	33.98	27.88	31.32	19.04	19.85

Note: This table reports the coefficients of regressions of the log 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. 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: Effects of Unrest on Global ODA Allocation, Leads and Lags

	(1) # of ODA Projects	(2) # of ODA Projects	(3) # of ODA Projects	(4) # of ODA Projects	(5) # of ODA Projects
Unrest, t+1	0.00628	0.00605	0.00574	0.0115	0.0109
	(0.0112)	(0.0133)	(0.0115)	(0.0150)	(0.0177)
Unrest, t	0.0104	0.0101	0.0101	0.0216	0.0211
	(0.00921)	(0.00890)	(0.00882)	(0.0141)	(0.0156)
Unrest, t-1	0.0150	0.0148*	0.0141	0.0228**	0.0223*
	(0.00885)	(0.00792)	(0.00869)	(0.00905)	(0.0109)
Unrest, t-2	0.0100	0.0108	0.00891	0.0112	0.0137
	(0.0181)	(0.0186)	(0.0193)	(0.0186)	(0.0201)
Unrest, t-3	0.0203	0.0201	0.0205	0.00723	0.00595
	(0.0180)	(0.0189)	(0.0183)	(0.0191)	(0.0234)
Baseline FEs	Yes	Yes	Yes	Yes	Yes
Residualized on Country and Continent-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, as well as for recipient population and the outcome variable in the base period. The sample is a balanced panel of prefectures in 2009–2017. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the data.

Table A.23: Effects of Unrest on Global ODA Allocation, Falsification Tests

	(1) # of ODA Projects	(2) Log Chinese Imports	(3) Log FDI Inflow	(4) Log OECD-DAC Aid
Unrest, t-1	0.0198***	0.000698	0.00123	0.00364*
	(0.00504)	(0.00151)	(0.00366)	(0.00180)
Log Trade with Chinese Prefectures, t-1	0.0734			
	(0.197)			
Baseline FEs	Yes	Yes	Yes	Yes
Residualized on Country and Continent-Year FEs	Yes	Yes	Yes	Yes
F-statistics	7.800	0.210	0.110	4.070
Observations	216	216	203	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 $t-1$. 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 log exports of Chinese prefectures. Financial values are in constant 2017 USD. The sample is a balanced panel of prefectures in 2009–2017. Standard errors are clustered at the prefecture level and reported in parentheses. See Section 3 for a description of the underlying data.