China's Investment Contributes to Stability in Host Countries

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Abstract: *As intra-national conflicts replace international wars to be the dominant form of collective political violence, the international dimension of domestic conflict has prompted reflections on the effects of globalization and multinational corporations represented by international investment. Theoretically, international investment may trigger or defuse conflicts. Although China is the world's second largest source of outward foreign direct investment (OFDI), there has been limited empirical literature on how China's OFDI has influenced domestic conflict in host countries. Based on the OFDI data of 115 developing countries from 2004 to 2016, this paper offers an empirical study on the effects of China's OFDI on the eruption of domestic conflict in host countries and the underlying mechanisms. Results suggest that China's OFDI in developing countries has made domestic conflict significantly less likely to erupt in those countries primarily by reducing the unemployment rate. These findings reflect the contribution of China's investment to the internal stability of host countries. However, problems in the overseas operations of Chinese companies cannot be overlooked.*

1. Introduction

After the World War II, armed conflicts within countries have replaced wars between countries to become the dominant form of collective political violence (Cederman and Vogt, 2017). According to statistics from the Uppsala Conflict Data Programs from 1946 to 2017, 90% of armed conflicts around the world with more than 25 combatant fatalities were domestic conflicts. This percentage soared after the Arab Spring, reaching its peak in 2015 and 2016 since the World War II. In this context, domestic conflict has emerged as a topic of importance in political science, sociology and economics.

Since the 1960s, the academia has conducted extensive theoretical and empirical research on the cause of domestic conflict as a classical and major issue. Some sociologists attempted to offer an explanation from an "intention" perspective, ascribing the eruption of domestic conflict to certain factors driving the public to oppose an incumbent regime (Gurr, 1968a, 1968b, 1970). Some other social movement researchers and political economists stressed the role of "opportunity", believing that domestic conflict was more likely to erupt when a socioeconomic structure or political organization made domestic conflict more feasible and potentially more profitable (Collier and Hoeffler, 2004; Fearon

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and Laitin, 2003; Roemer, 1985; Skaperdas,1992). Driven by research at the ethnic group level, research on domestic conflict became extended to the more microscopic village and county level; on the other hand, the role of international factors is increasingly taken into account.

Foreign direct investment is a key manifestation of globalization. Compared with trade of commodities and service, FDI often brings special effects to host countries. Firstly, goods trade between countries mainly involves an exchange of commodities while FDI entails the flow of capital, personnel, technology, and standards; FDI tends to exert a more far-reaching influence on host countries. Secondly, compared with goods trade, FDI requires long-term, repeated interaction with the host countries. Therefore, the investors' interests are more likely to be affected by political and social change in host countries, and investors have more opportunities to be involved in a host country socially and economically and thus are more motivated and capable to influence the host country's political and economic environment. For host country governments, trying to attract foreign capital, they have to make efforts, including preferential treatments and liberalization, as well as political and social reforms to reduce investment risk and operating cost.

China is the world's second-largest source of FDI. According to data from *Statistical Communique on China's OFDI*, China's outward foreign direct investment (OFDI) stock reached 1.4 trillion US dollars by 2016, or 5.2% of the world's total. Since the Chinese government started to release annual statistics in 2003, China's annual growth of OFDI flow averaged 35.8% during 2002-2016. During 2013-2016, China's cumulative OFDI flow reached 572.78 billion US dollars, accounting for 40.9% of China's total OFDI stock by 2016. Such a large amount of Chinese capital inflows into host countries in a relatively short period has aroused controversies globally. Some Western scholars and politicians have played up the potential risks and shocks of China's OFDI. When US former Secretary of State Hillary Clinton visited Zambia in 2011, she lashed out at China's "unscrupulous exploitation" of resources on the African continent as "neocolonialism" and urged African governments to review Chinese investments more strictly. Compared with multinational corporations (MNCs) from Europe and America, some Chinese companies were criticized for their lack of experience and maturity in market rules, social responsibilities, among other areas. Considering disparate overseas cultural and policy environments, some academics believed that Chinese companies were inept at dealing with ethnic and labor issues in host countries, which might escalate into broader conflicts.

However, existing studies are primarily based on case studies or questionnaire surveys, which make their external validity and representativeness hard to verify. Relevant empirical research based on larger samples is absent. Although China's surging OFDI has aroused global attention, academic research on the effects of China's OFDI on host countries remains in the nascent stage. Currently, only limited research is focused on the economic effects on host countries. As far as we know, there is no empirical literature on the political impact of China's FDI on host countries based on larger samples.

Based on elaborating the possible mechanism of FDI's effects on domestic conflict, this paper further employs data on China's OFDI in 115 developing countries in 2004-2016 to empirically investigate its OFDI's impact on the eruption of domestic conflict in host countries and the underlying mechanism, filling the void of research on this important question. Our findings suggest that China's OFDI has made internal conflict significantly less likely to occur in recipient developing countries while OFDI from the United States as the world's largest OFDI source had an insignificant effect in curbing domestic conflict in recipient countries. In terms of the underlying mechanism, China's OFDI has made domestic conflict less likely to occur in host countries by significantly reducing the local unemployment rate in recipient developing countries, thus raising the opportunity cost for locals to engage in armed conflicts and reducing the legitimacy and success rate of an insurgency.

The remainder of this paper is structured as follows. Part 2 elaborates the possible impact of FDI on domestic conflict. Part 3 is an empirical analysis based on China's OFDI data. Part 4 analyzes the

robustness of our findings and examines the underlying mechanism. Part 5 offers a summary of this paper and sheds light on the directions of future research.

2. Positive and Negative Effects of OFDI on Domestic conflict in Host Countries and Underlying Mechanisms

Since the 1960s and 1970s, civil wars and domestic conflict have been a key topic of political economics and sociology (Cederman and Vogt, 2017). In recent years, some researchers of political economics have started to examine the "international dimension of civil wars" (Gleditsch, 2007). One of the focus points is the relationship between globalization and domestic conflict. Some academics believed that globalization could reduce a country's political risk by promoting local economic development and improving income inequalities (Li and Reuveny 2003; Bak and Moon, 2016). Others noted that globalization would increase inequalities with adverse shocks to economic development and political systems, thus giving rise to a country's political risk (Berdal, 2003; Zhu, 2017).

FDI is a key component of globalization. Currently, the research literature on the impact of FDI on domestic conflict in host countries is limited and has yet to reach consistent conclusions. Existing studies have examined various indicators of economic globalization, including FDI, and found that FDI would reduce the probability and intensity of domestic conflict in a host country and enhance the internal political stability of "authoritarian" countries (Barbieri and Reuveny, 2005; Blanton and Apodaca, 2007; Bak and Moon, 2016). Other studies, however, found that the inrush of multinational corporations (MNCs) would increase market concentration and rent-seeking space for the government, thus making it more likely for rebel forces to clash with a government over economic interest. Yet such conflicts tend to abate in countries with strong governments. Some scholars noted the sectoral difference of FDI and found that FDI inflows in the primary and tertiary industries would lead to sharply opposite effects on the eruption of domestic conflict. Given FDI's broad political and economic effects on host countries, the mechanisms and channels for FDI to influence domestic conflict in a host country are also heterogeneous (Mihalache-O'Keef, 2018).

2.1 Effects on Economic Growth and Employment

Developing countries usually compete for FDI to bring capital, technology and jobs growth that undergird their economic development. As early as in 1960, academics had uncovered the technology diffusion and spillover effects of international investment (MacDougall, 1960), which is extensively supported by empirical research (Borensztein *et al*., 1998; Grossman, 1991; Collier and Hoeffler, 2004).

Economic growth, rising incomes and fewer idle labor force will raise the opportunity cost for locals to join riots, thus making domestic conflict less likely (Grossman, 1991; Collier and Hoeffler, 2004). Meanwhile, a higher national income also means more resources at the disposal of the government to stabilize domestic political situation (Bak and Moon, 2016). On the other hand, however, if FDI's effects on a country's economic performance are imbalanced, e.g., by inducing additional growth in capital-intensive sectors, workers would find it more profitable to plunder valuable capital assets than to earn labor incomes. In this circumstance, the risk for the eruption of domestic conflict will increase over time (Bó and Bó, 2004).

Numerous scholars have noticed the negative effect of growth in resource output on the eruption of domestic conflict. A sharp rise in the output of resources like petroleum, gold and diamond vulnerable to plundering will boost the expected return for insurgents, providing them with more funds to recruit followers (Collier and Hoeffler, 1999; Humphreys and Weinstein, 2006). For countries highly dependent on natural resources, an abundance of natural resources means that the government becomes more dependent on easily acquired natural resource revenues rather than tax incomes. Rent-seeking tends to be rife in those governments, which have limited control over the society. In addition, the uneven

distribution of natural resources may also give rise to separatist tendencies in some resource-rich regions (Billon, 2001; Ross, 2004). Hence, FDI in the extraction of natural resources is more likely to create a "diamond curse" rather than peace.

Contrary to the "resource-seeking" motivation that some scholars believed that China had in its investment in developing countries, the *Statistical Communique on China's OFDI* indicates that since peaking at 24.81 billion US dollars in 2013, China's OFDI flows to overseas mining sector have nosedived, down by 49.4% on an annual average basis from 2014 to 2016. In resource-dependent African countries, the construction sector has replaced mineral resources as the biggest recipient sector of OFDI from China. With a greater preference for industrial and infrastructure development, China's capital may be a boon to political and economic development in recipient developing countries. The positive effects of China's investment on Africa's economic growth may be ascribed to China's export of technologies that matches Africa's endowments and development stage.

China's investment may also contribute to political stability by promoting employment. OFDI from developing countries tend to be more labor-intensive than OFDI from developed countries (Lecraw, 1977). Data suggested that China's investment has a significant contribution to local employment. By the end of 2016, China's OFDI enterprises hired a total of 2,865,000 employees in host countries, of whom 1,343,000 (46.9%) were locals. According to Earnest & Young's *Africa Attraction Report*, Chinese enterprises have created 38,417 jobs in Africa in 2016, making China the biggest employer in Africa.

China's investment has provided much-needed capital and jobs for numerous developing countries and improved local infrastructure to support sustainable economic growth. Such changes help raise the opportunity cost for local people to get involved in armed conflicts, reduce the legitimacy and success rate of insurgencies, and thus make it less likely for domestic conflict to occur in host countries.

2.2 Inequality Effects for Host Countries

Inequality is a core variable for research on civil wars. As early as in the 1960s and 1970s, some political scholars carried out extensive statistical tests of the relationship between inequality and domestic conflict (Russet,1964; Midlarsky and Roberts, 1985; Walter, 2004; Murshed and Gates, 2005; Piazza, 2011). International investment gives rise to new modes of production and uneven distribution that will cause shocks to host countries' economic structure and especially income gaps at individual, class and ethnic group levels, which stoke public dissatisfaction and fuel domestic conflict.

FDI's effects on host countries are twofold. On one hand, multinational companies hire and train nonskilled workers and help them narrow their wage gaps with skilled workers, thus reducing inequalities (Jensen and Rosas, 2007). On the other hand, FDI will bring about technology innovations that create demand for high-skilled workers, widening their wage gaps with low-skilled workers (Bogliaccini and Egan, 2016).

FDI's heterogeneous effects on the income inequality of host countries have to do with the type of FDI and are subject to the human resource endowment and structure of host countries. Research on mid- and high-income countries found that foreign capital in high-skilled service sectors will widen inequalities by offering higher wages to high-skilled professionals (Bogliaccini and Egan, 2016). Research on low-income countries found that FDI in the tertiary sector was conducive to the training of low-skilled workers and helped improve human capital and promote political stability (Mihalache-O'Keef, 2018). These papers reached opposite conclusions on the effects of tertiary-sector FDI on host countries' political stability probably due to differences in sample countries. In host countries with insufficient human capital and high-skilled workers, FDI may improve local workforce quality through the "learning by doing" process and thereby increase the supply of high-end workforce and reduce income gaps; in host countries with relatively sufficient human capital, foreign-invested companies tend to employ locally educated workforce, thus increasing demand for high-skilled workforce and widening income gaps (Lin *et al.*, 2013).

According to classical FDI theories, an FDI firm needs to overcome the significant advantages of local firms in the host country and third-country firms to offset its natural disadvantage in overseas operation (Caves, 1971). Yet these theories are based on the experiences of multinational companies in the US, Europe and Japan in the 1970s and 1980s. For China as a middle-income developing country, most of its OFDI enterprises have no significant advantages over their European and North American rivals in terms of technology and managerial expertise. That is why China has made few investments in high-end services and high-tech sectors in developing countries and has focused more on mid- and low-end manufacturing and infrastructure projects, which offer more jobs and certain vocational skills training for the low-skilled workforce (Guillén and García-Canal, 2009). By creating jobs and training the low-skilled workforce, China's OFDI will not significantly widen local income gaps, thus making it less likely for domestic conflict to occur in host countries.

2.3 Effects on Labor Rights and Governance

The violation and deprivation of labor rights are key variables to the concern of researchers on domestic conflict (Young, 2012). In this respect, FDI's effects on host countries are heterogeneous. Some academics who adhered to classical libertarian views believed that with higher labor protection standards, foreign-funded companies play an exemplary role for local firms and help improve overall labor rights under the climb-to-the-top effect (Mosley and Uno, 2007; Kim and Trumbore, 2010). Others believed in a dependency theory, blaming FDI for deteriorating labor rights in host countries. Fierce competition to attract international capital has forced developing countries to make compromises in taxation and labor rights, triggering a "race to the bottom". This is to say, countries vie to attract international investment at the expense of sacrificing basic welfare benefits.

Moreover, FDI may influence a country's political stability through its governance effects. Scholars held opposing views on FDI's effects on host country governance. Some contended that unlike local companies, foreign-funded companies would not habitually bribe host country government (Ackerman, 1978; Sandholtz and Gray, 2003). Foreign-funded companies tend to push for liberal, law-based, open and transparent economic reforms in host countries for a more conducive competitive environment (Richards *et al.*, 2001). Yet others contended that foreign-funded companies would adapt to the host country's environment and participate in corruption together with local companies. Foreign-funded companies are more efficient and may crowd out local companies, thus increasing market concentration and creating space for rent-seeking in sectors with market access thresholds (Malesky *et al.*, 2015; Zhu, 2017). Studies found that FDI would increase corruption in economically less developed countries and reduce corruption in developed countries (Pinto and Zhu, 2016). That is to say, FDI's impact on host country governance is not a simple linear relationship.

China's rapid OFDI growth has aroused great attention. As latecomers, Chinese multinational companies remain followers rather than leaders and lack bargaining power vis-à-vis country governments. Most OFDIs from Chinese companies are free from political strings. For instance, they would not force host country governments to implement economic liberalization policies, thus triggering fewer political shocks to host countries compared with large multinational companies from Europe and North America. As such, we believe that China's OFDI will not have any significant impact on the autonomy of host country governments, which is of great significance to political stability in host countries.

3. Empirical Analysis Based on China's OFDI Data

FDI has complex effects on the eruption of domestic conflict in host countries, which may vary greatly across sectors, host country governments and investment source countries. Such heterogeneity needs to be examined through a further decomposition of FDI. Based on data of China's OFDI to 115

developing countries, this section offers an empirical analysis of the impact of China's investment on the eruption of internal strife in host countries during 2004-2016.

3.1 Data and Variables

3.1.1 Dependent variable

The dependent variable is the onset of domestic conflict ("Domestic Conflict"). Original data is from the conflict database (Hegre and Sambanis, 2006; Collier *et al*., 2009) provided by the Uppsala Conflict Data Program undertaken by the Swedish Uppsala University and Centre for the Study of Civil War at the Peace Research Institute Oslo (PRIO) (Hegre and Sambanis, 2006; Collier *et al*., 2009). Considering that domestic conflict in many countries lasts for a certain period, we create the dummy variable of "domestic conflict" referencing existing studies and assign the value of 1 if a new domestic conflict occurred more than one year after peace time; otherwise, the value is 0 (Pinto and Zhu, 2015; Mihalache-O'Keef, 2018).

3.1.2 Core independent variables

This paper employs four variables to measure China's OFDI in a host country. (1) China's OFDI inflow to a host country as a share of the host country's current-year GDP (hereinafter "Investment Flow"); (2) China's OFDI stock in the host country as a share of the host country's GDP (hereinafter "Investment Stock"); (3) the number of China's new OFDI projects in the host country (hereinafter "Number of New Projects"); (4) the cumulative number of China's OFDI projects in the host country (hereinafter "Number of Cumulative Projects"). To minimize the problem of endogeneity, we incorporated these four variables into the regression model with a one-phase lag.

China's OFDI flow in the host country measures the annual increment of OFDI from China; China's OFDI stock in the host country measures the cumulative amount of OFDI. Both variables are from *Statistical Communique of China's OFDI* for 2003-2016 (hereinafter "*Statistical Communiqué*").

Since the *Statistical Communiqué* provides no detailed sectoral data of OFDI for various countries (regions), we use BVD-ZEPHYR *Global M&A Transactions Analysis Database* and *The Financial Times Global Cross-border Greenfield Investment Database* for FDI Markets to aggregate project-level data to the country-year level and thus obtain the two core independent variables of "Number of New Projects" and "Cumulative Number of Projects".

3.1.3 Control variables

Based on previous literature, we have also controlled for the following variables that may influence the eruption of domestic conflict:

(1) Income level variable. Measured in this paper by the logarithm of the host country's GDP per capita with a one-phase lag (hereinafter "GDP per capita"). GDP per capita data are from the World Development Indicators (WDI) released by the World Bank.

(2) Natural resources variable. Measured by the logarithm of the host country's fuel and mineral metal exports with a one-phase lag (hereafter "Natural Resources"). Data are from the United Nations Conference on Trade and Development (UNCTAD).

(3) Geographical variable. Measured in this paper by whether the host country has any exclave (hereinafter "Exclave") and the share of mountainous regions in its total land area (hereinafter "Mountainous Regions"). According to the existing literature, an exclave or mountainous region gives anti-government forces a greater space of survival and a more favorable position in an armed conflict (Collier and Hoeffler, 2004).

(4) Military strength variable. Some academics believed that military strength would influence domestic conflict (Fearon and Laitin, 2003). In this paper, military strength is measured by military

spending as a share of GDP with a one-phase lag ("Military Spending"). Military Spending data are from the World Bank's WDI.

(5) Population variable. Measured in this paper by the logarithm of the host country's population with a one phase-lag (hereinafter "population"). Population data is from the World Bank's WDI.

(6) Religious and ethnic diversity variable. Ethnic conflict is one of the most common forms of conflict after the Cold War. Some studies suggest that the more complex of a country's religious and ethnic composition, the more likely it is for a domestic conflict to occur. Religious and ethnic diversity data is from the "Secession Index" database (Alesina *et al.*, 2003). Religious diversity and ethnic diversity respectively measure the product between the proportions of two religious/ethnic groups to the country's total population. Intuitively, this index is the probability for any random two persons from the country with different religious/ethnic affiliation (Fearon and Laitin, 2003; Collier and Hoeffler, 2004).

(7) Democracy variable. Many academics have noticed the effect of a country's polity on domestic conflict or political stability. Here, we select the overall indicators of the Center of Systemic Peace and the Polity IV Database for measuring a country's polity as the variable of democracy. Higher value indicates that the country is closer to a mature political system of freedom and democracy.

Table 1: Descriptive Statistics of Basic Variables

Type	Variable	Observations	Mean	Standard deviation	Min.	Max.
Dependent variable	Domestic Conflict	1,610	0.0314	0.174	0	1
Core explanatory variables	Investment Stock (percentage)	1,372	0.0175	0.0508	2.31E-07	0.741
	Investment Flow (percentage)	1,211	0.00345	0.0134	-0.116	0.173
	Number of New Projects	1,495	1.338	3.31	0	57
	Number of Cumulative Projects	1,459	7.32	17.42	0	237
Control variables	GDP Per Capita (Logarithm)	1,561	8.032	1.235	5.267	11.19
	Natural Resources (Logarithm)	1,596	13.97	2.838	1.759	19.8
	Exclave	1,498	0.112	0.316	0	1
	Mountainous Region	1,498	18.43	21.06	0	81
	Military Spending (percentage)	1,392	2.119	1.807	0	16.08
	Population (logarithm)	1,604	16.17	1.715	11.32	21.02
	Religious Diversity	1,526	0.419	0.239	0	0.86
	Ethnic Diversity	1,526	0.497	0.244	0	0.93
	Score of Democracy	1,526	2.498	6.258	-10	10
	Other Countries' Investment Flow (percentage)	1,182	4.11	5.72	-37.19	56.8
	Other Countries' Investment Stock (percentage)	1,330	41.2	55.4	0	789.9
	China's Aid to the Host Country (logarithm)	1,488	7.92	8.95	0	24.24

Source: Compiled by authors based on information listed in this paper.

(8) Other countries' OFDI in the host country. When the core independent variable is flow data, this variable is measured by other countries' OFDI flow in the host country as a share of the host country's GDP with a one-phase lag (hereafter "Other Countries' Investment Flow"). When the core independent variable is stock data, this variable is measured by other countries' OFDI stock in the host country as a share of the host country's GDP with a one-phase lag (hereinafter "Other Countries' Investment Stock"). Other Countries' Investment Flow (Stock) in the host country is calculated by subtracting China's OFDI flow (stock) from the aggregate FDI flow (stock) attracted by the country. Aggregate FDI flow (stock) data of the country are from the UNCTAD database.

(9) China's aid to the host country. The effects of international aid on domestic conflict are also an important topic of concern for international political economics. This paper will include the logarithm of China's aid to the host country with a one-phase lag into control variables. Aid data are from the Global Chinese Official Finance Dataset.

(10) Fixed effect of year. Used to control for the difference of temporal volatility. Table 1 offers the descriptive statistics of basic variables.

3.2 Econometric Model and Regression Results

Based on the above analysis, we will estimate the impact of the above-mentioned factors on the eruption of domestic conflict in host countries. Since the eruption of domestic conflict is a dummy variable, the estimating equation can be written in the following form of probit model:

$$P(Conflict_{c},\,t=1) = \varphi\,(\alpha FDI_{c,\,t-1}+\Gamma X_{c,\,t-1}+\Pi Z_c + \gamma_t + \varepsilon_{ct}) \tag{1}$$

Table 2: Matrix of Correlation Coefficients between Core Explanatory Variables and Control Variables

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16
x1	1.00															
x2	0.71	1.00														
x3	-0.04	-0.04	1.00													
x4	0.02	-0.01	0.09	1.00												
x5	0.07	0.03	-0.07	-0.04	1.00											
x6	0.02	0.03	-0.05	0.06	0.39	1.00										
x7	-0.13	-0.13	-0.01	-0.44	-0.11	-0.14	1.00									
x8	-0.15	-0.10	0.11	0.03	-0.26	-0.09	0.22	1.00								
x9	-0.17	-0.18	0.34	-0.12	-0.09	-0.13	0.20	0.48	1.00							
x10	0.06	0.06	-0.02	-0.05	-0.06	-0.22	-0.02	-0.14	-0.04	1.00						
x11	-0.07	-0.09	0.30	0.04	-0.16	-0.08	0.08	0.02	0.24	0.04	1.00					
x12	-0.18	-0.20	0.41	-0.01	-0.09	-0.25	-0.04	-0.30	0.50	0.17	0.28	1.00				
x13	-0.04	-0.04	0.86	0.11	-0.12	-0.05	0.00	0.18	0.40	-0.06	0.33	0.48	1.00			
x14	0.12	0.05	-0.09	0.04	0.11	0.09	-0.05	-0.06	-0.14	-0.05	-0.07	-0.26	0.12	1.00		
x15	0.20	0.13	-0.07	0.14	0.08	0.07	-0.10	-0.26	-0.17	-0.09	-0.09	-0.26	-0.07	0.49	1.00	
x16	0.03	0.07	-0.05	-0.03	0.17	0.08	-0.13	-0.38	-0.13	0.03	0.06	0.14	-0.09	-0.01	-0.03	1.00

Source: Calculated by authors based on relevant data using Stata econometric software.

Notes: Abbreviations in Table 2 refer to: x1="Investment Stock", x2="Investment Flow", x3="Number of New Projects", x4="Level of Democracy", x5="Ethnic Diversity", x6="Religious Diversity", x7="Military Spending", x8="GDP Per Capita", x9="Natural Resources", x10="Mountainous Region", x11="Exclave", x12="Population", x13="Number of Cumulative Projects", x14="Other Countries' Investment Flow", x15="Other Countries' Investment Stock", and x16="China's Aid".

Table 3: Regression Results of the Effects of Chinese Investment on the Eruption of Domestic Conflict in Host Countries

Dependent variable: Whether internal strife occurred	Core independent variables			
	(1) Investment stock	(2) Investment flow	(3) Number of new projects	(4) Cumulative number of projects
Core Independent Variable	-0.87** (0.385)	-1.899* (1.084)	-0.012*** (0.003)	-0.002*** (0.001)
GDP Per Capita	-0.034*** (0.008)	-0.031*** (0.008)	-0.020** (0.008)	-0.021*** (0.007)
Natural Resources	0.011** (0.005)	0.009* (0.005)	0.007* (0.004)	0.007* (0.004)
Religious Diversity	0.036 (0.028)	0.047 (0.033)	0.063** (0.032)	0.055** (0.028)
Population	-0.002 (0.007)	0.001 (0.007)	0.015** (0.007)	0.014** (0.006)
Level of Democracy	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002* (0.001)
China's Aid	-0.001 (0.001)	-0.001 (0.001)	-0.001* (0.001)	-0.001 (0.001)
Exclave	0.007 (0.018)	0.009 (0.02)	0.025 (0.018)	0.024 (0.018)
Mountainous Region	0 (0)	0 (0)	0 (0)	0 (0)
Military Spending	0.003 (0.003)	0.002 (0.004)	0.002 (0.004)	0.002 (0.004)
Ethnic Diversity	-0.017 (0.027)	-0.027 (0.033)	-0.031 (0.028)	-0.026 (0.025)
Other Countries' Investment	0 (0)	0.001 (0.001)	0.001 (0.001)	0 (0)
Fixed effect of year	Yes	Yes	Yes	Yes
Observations	1065	945	945	1065
Pseudo R^2	0.146	0.125	0.154	0.155

Source: Calculated by authors through a regression analysis based on relevant data with Stata econometric software.

Notes: ***$p < 0.01$,**$p < 0.05$,* $p < 0.1$; values in parentheses are standard errors, and robust standard errors are clustered at the country level; probit regression coefficients all report the average marginal effect.

Where, c is different host countries, and t is year. Core explanatory variable $FDI_{c,t-1}$ is China's OFDI in developing countries with a one-phase lag, measured by the four variables of "Investment Flow", "Investment Stock", "Number of New Projects" and "Number of Cumulative Projects". $X_{c,t-1}$ is a series of control variables with the one-phase lag that change with country-year, primarily including "GDP Per Capita", "Natural Resources", "Military Spending", "Population", "Other Countries' Investment Flow", "Other Countries' Investment Stock", and "China's Aid". Z_c is control variable at the country level, and primarily includes "Religious Diversity", "Ethnic Diversity", "Level of Democracy", "Exclave", and "Mountainous Region". γ_t is the fixed effect of time, and ε_{ct} is error term.

Table 2 is a matrix of correlation coefficients between core explanatory variable and control variables. It can be found that the correlation coefficients between China's OFDI in host country variable and control variables are all smaller than 0.5, which indicates that no serious problem of multicollinearity exists.

Table 3 provides the regression results of the above-mentioned probit model. Results suggest that China's OFDI to developing countries has significantly reduced the probability of domestic conflict in host countries. On average, an increase in China's OFDI Flow in the host country would reduce the

probability of domestic conflict in the host country by 1.899%, which passed the significance test at 10%. An increase in China's OFDI Stock in the host country by each percentage point would reduce the probability of domestic conflict in the host country by 0.87%, which passed the significance test at 1% level. An increase of each OFDI project from China in the host country would reduce the probability of domestic conflict in the host country by 0.2%, which passed the significance test at 1%.

As for control variables, GDP per capita, natural resources, ethnic diversity, population, level of democracy and China's aid have a significant influence on the onset of domestic conflict in host countries. With controlled variables, domestic conflict is more likely to erupt in host countries with smaller GDP per capita, more natural resource exports, greater complexity in religious diversity, a larger population, a lower level of democracy, and less aid from China.

4. Robustness Analysis and Mechanism Research

This section provides a robustness analysis of the potential endogeneity problem and excessive zero values of dependent variables, compared with the results with US OFDI data, and examines the mechanism of China's effects on domestic conflict in most countries.

4.1 Endogeneity Problem

This paper discusses the impact of China's FDI on the eruption of domestic conflict in host countries. But the reverse causality, i.e., the effect of political stability in host countries on international investment, also exists extensively and has received more attention than this paper's subject of research. Many academics found that political risk, corruption, government quality and the rule of law in host countries would significantly influence FDI inflows (Busse and Hefeker, 2007; Malesky *et al.*, 2015). If the impact of international investment on political risks in host countries is examined in disregard of the reverse causality, the results of empirical estimation could be biased. To minimize the problem of endogeneity, we have taken the one-phase lag of the four core explanatory variables for measuring China's OFDI in host countries before introducing them into the regression model. This section further employs the instrumental variable method for a robustness regression.

4.1.1 Choice of instrumental variables

The instrumental variable $IV_{c,t}$ created in this paper is calculated as follows:

$$IV_{c,t} = w_{03,c} \frac{Inreserve_t}{distcap_c} \tag{2}$$

$distcap_c$ is the distance between China's capital and the capital of host country c. According to the gravity model, bilateral investment volume has a negative correlation with distance between two countries (Pinto and Zhu, 2015; Bak and Moon, 2016). $Inreserve_t$ is the logarithm of China's foreign exchange reserves in year t. Since its capital account is yet to be fully opened, China's FDI is closely correlated with change in its foreign exchange reserves (Wang and Gao, 2019). $w_{03,c}$ is China's initial OFDI in host country c. For "Investment Stock" and "Investment Flow", $w_{03,c}$ is the logarithm of China's OFDI stock in the host country by 2003. For "Number of New Projects" and "Number of Aggregate Projects", $w_{03,c}$ is the cumulative number of China's OFDI projects in the host country during 2001-2003.

The Stage 1 regression results of the instrumental variable in Table 4 show that the instrumental variable IV created in this paper is significantly positively correlated with each endogenous explanatory variable, and the partial F value is greater than 10, which satisfies the condition of strong correlation. Meanwhile, neither the distance between China and host countries nor China's foreign exchange reserve status is correlated with the domestic political and economic situations of recipient developing countries,

so both can be regarded as conditions unrelated to the error term.

4.1.2 Regression Model of Instrumental Variable

$$\text{Stage 1: } FDI_{c,t-1} = \beta\,IV_{c,t-1} + \Gamma X_{c,t-1} + \Pi Z_c + \gamma_t + v_{ct} \tag{3}$$

$$\text{Stage 2: } Conflict_{c,t}{}^* = \alpha \widehat{FDI_{c,t-1}} + \Gamma X_{c,t-1} + \Pi Z_c + \gamma_t + u_{ct} \tag{4}$$

$$Conflict_{c,t} = 1\ (Conflict_{c,t}{}^* > 0) \tag{5}$$

This model employs the probit model (IV probit) of the instrumental variable method. Where, $Conflict_{c,t}{}^*$ is the latent variable of whether a domestic conflict has occurred, and (v_{ct}, u_{ct}) is subject to bivariate normal distribution. $\widehat{FDI_{c,t-1}}$ in Stage 2 is calculated by substituting FDI estimated in Stage 1.

This paper employs the maximum likelihood estimate (MLE) to estimate Model IV, which leads to greater efficiency and may directly obtain the estimated values of α, β and other parameters. If the basic assumption of distribution holds, it provides consistent and effective estimators and correct standard errors.

4.1.3 Regression results of the instrumental variable

Stage 2 regression results of the instrumental variable in Table 4 also indicate that China's OFDIs have played a positive role in the political stability of recipient developing countries by significantly reducing the probability of domestic conflict. As can be seen from the regression results of Columns (5) through regression (8) of Table 4, the coefficient is significantly negative and has passed the 5% significance test no matter which core explanatory variable is used.

In comparison of regression results in Columns (5) through regression (8) of Table 4 and Columns (1)-(4) in Table 3, the core independent variable's direction of impact remains the same, but change in the size of the coefficient is significant due to two reasons. Firstly, while increasing China's investments, the omitted variables in the ordinary probit regression may also increase the probability of domestic conflict in host countries. Hence, the benchmark regression results in Table 3 may have underestimated the inhibitive effect of China's investment on domestic conflict in host countries. Since the coefficient of investment is negative, the absolute value of the actual effect is greater. Secondly, IV estimates the regional average effect, reflecting the average effect of international investment that changes with IV, which is usually greater than the overall average treatment effect.

In any case, both the benchmark regression model and the instrumental variable regression model have verified that China's OFDI has significantly have contributed to political stability in recipient developing countries by reducing the probability of domestic conflict.

4.2 Comparison: Regression Results Based on US OFDI Data

The US is the world's largest OFDI source country. As a comparison with China, we also analyzed the relationship between US OFDI and the onset of domestic conflict in host countries. Consistent with the treatment on the data of China, US OFDI in a host country is measured by US OFDI Stock as a share of the host country's current-year GDP (hereinafter "US Investment Stock"). Data of US OFDI Stock in the country are from the U.S. Bureau of Economic Analysis.

As can be found from the regression (1) results of Table 5, there is no significant correlation between US OFDI and domestic conflict in host countries. Notably, we are talking about correlation rather than causality. Because the potential problem of endogeneity may exist and the results of regression (1) are not significant, we were unable to find an appropriate instrumental variable.

At the sectoral level, the following can be found from the results of regressions (2) and (3) in Table 5: US OFDI in manufacturing sector has a significantly negative correlation with the onset of domestic conflict in host countries and US OFDI in primary sector has a significantly positive correlation with the

Table 4: Regression Results of the Instrumental Variable

	Dependent variable	Core independent variable			Control variable	Observations	Fitted R^2	Partial F
Stage 1	(1) Number of New Projects	IV	80.1***	(20.080)	Yes	816	0.41	15.9
	(2) Number of Cumulative Projects	IV	422.8***	(134.400)	Yes	859	0.58	11
	(3) Investment Flow	IV	0.017***	(0.003)	Yes	816	0.51	25.5
	(4) Investment Stock	IV	0.090***	(0.020)	Yes	859	0.36	21.9
Stage 2	(5) Domestic conflict	Investment stock	-2.32***	(0.880)	Yes	859	-	-
	(6) Domestic conflict	Investment flow	-11.13**	(5.400)	Yes	816	-	-
	(7) Domestic conflict	Number of new projects	-0.068**	(-0.025)	Yes	816	-	-
	(8) Domestic conflict	Number of cumulative projects	-0.012**	(0.006)	Yes	859	-	-

Source: Calculated by authors through a regression analysis based on relevant data with Stata econometric software.

Notes: ***$p < 0.01$,**$p < 0.05$,* $p < 0.1$; values in parentheses are standard errors, and robust standard errors are clustered at the country level; partial F corresponds to the Stage 1 test statistics of unrestricted and restricted regression; control variables are the same with Table 3. In the interest of length, specific results are not reported in this paper but available upon request. Fitted R^2 for Stage 2 regression of instrumental variables is "-" because fitted $R^2 = 1-\ln L_1/\ln L_0$, $\ln L_1$ is the logarithmic natural function of the original model, and $\ln L_0$ is the maximum value of the logarithmic likelihood function. Normally, we pay no attention to fitted R^2 for IV probit because it has little significance to the regression results.

onset of domestic conflict. That is to say, the more US OFDI Stock in the local manufacturing industry, the civil conflict becomes less likely. Meanwhile, more US OFDI Stock in the local primary industry is associated with higher risk of civil unrest. This result verifies the negative effect of resource output growth on the eruption of domestic conflict.

Generally speaking, since the coefficient of regression (1) in Table 5 is insignificant, the results may suggest that US OFDI did not exert any significantly positive effect on political stability in host countries.

4.3 Mechanism Analysis

Why does China's OFDI help prevent domestic conflict in host countries? What is the underlying mechanism? Based on existing literature, the second part of this paper reviewed the possible mechanisms for domestic conflict to occur in a host country. Research on those mechanisms is primarily based on different sources of data or theoretical induction and deduction. This section tests data on China's OFDI in 115 countries in 2004-2016. In the interest of length, this section only retains the intermediate mechanism, i.e., unemployment rate, that has a significant impact on the eruption of domestic conflict.

Table 6 shows the test results of the unemployment rate mechanism. As can be learned from the results of regression (5), the coefficient of employment rate is positive and has passes significance test at 5%. This explains that lowered unemployment rate may indeed reduce the probability for domestic conflict to occur in host countries.

China's OFDI in developing countries may help reduce local unemployment rate. As can be found from the results of regressions (1) to (4), the coefficient is significantly negative at 5% level no matter which core explanatory variable is followed, i.e., China's OFDI has significantly reduced local

Table 5: Regression Results Based on US Data

Dependent variable: Domestic conflict	Core explanatory variables			Control variables	Observations	Fitted R^2
	(1) US Investment Stock	0.047	(0.119)	Yes	735	0.104
	(2) US Investment Stock (primary industry)	2.204***	(0.509)	Yes	551	0.165
	(3) US Investment Stock (manufacturing industry)	-4.620*	(2.594)	Yes	731	0.164
	(4) US Investment Stock (services)	-1.035	(0.969)	Yes	422	0.134

Source: Calculated by authors through a regression analysis with Stata econometric software based on relevant data.

Note: ***p < 0. 01,**p < 0. 05,* p < 0. 1; values in parenthesis are standard error, and robust standard errors are clustered at the country level; control variables are the same with Table 3. In the interest of length, specific results are not reported here but available upon request.

Table 6: Test of the Unemployment Rate Mechanism

	Core explanatory variables			Control variables	Observations	Fitted R^2
Dependent variable: Unemployment rate	(1) Investment Stock	-35.4**	(-13.7)	Yes	616	0.15
	(2) Investment Flow	-106.3***	(-46.6)	Yes	616	0.1
	(3) Number of New Projects	-0.22**	(-0.11)	Yes	616	0.09
	(4) Number of Cumulative Projects	-0.048*	(0.025)	Yes	709	0.13
Dependent variable: Domestic conflict	(5) Unemployment Rate	0.025**	(0.012)	Yes	705	0.13

Source: Calculated by authors through a regression analysis with Stata econometric software based on relevant data.

Note: ***p < 0. 01,**p < 0. 05,* p < 0. 1; values in parenthesis are standard errors, and robust standard errors are clustered at the country level; control variables are the same with Table 3. In the interest of length, specific results are not reported here but available upon request.

unemployment rate.

In short, China's OFDI may help reduce local unemployment rate, contributing to political stability in host countries by making domestic conflict less likely to occur. Reducing unemployment rate is an important mechanism for Chinese investment to reduce the probability of domestic conflict in host countries.

5. Conclusions

Based on data on China's OFDI in 115 developing countries in 2004-2016, this paper tentatively examined the impact of China's OFDI on host countries. After controlling other factors, considering the problem of endogeneity and performing other robustness tests, this paper found that China's OFDI has contributed to political stability in recipient developing countries by making domestic conflict less likely to occur. This result has passed robustness test.

These findings give us a clearer picture of the economic and political effects of China's OFDI on host countries, illustrating the positive contributions of China's OFDI to the internal stability of host countries. Of course, the problems arising from the overseas operations of Chinese companies cannot be overlooked. In making overseas investments, Chinese companies have a long way to go in contributing to local communities, fulfilling their social responsibilities, and transferring more technologies to host countries.

In addition, this study is focused on country-level analysis. Further geographical information about the locations of domestic conflict provided by the Geographical Information System (GIS) and event data about domestic conflict collected by machine learning with big data will help us learn about the spatial process of conflicts and control for sub-national factors in our empirical study (Cederman and Wucherpfennig 2017). Our approach in this study is restricted by geographical information in OFDI project data. Hence, a direction of future research is to conduct analysis at a more precise and microscopic level after more complete international investment data are obtained. ▣

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