

# Leveling the Playing Field for Everyone?

## Large-scale Anti-corruption Campaign and Foreign Direct Investment, with Evidence from China<sup>\*</sup>

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### Abstract

Anti-corruption efforts in authoritarian regimes are often seen as insincere charades or tools used for intra-elite struggles and factional purges. This paper advances an alternative view that considers their substantial effects. I argue that authoritarian anti-corruption efforts can have positive effects on foreign direct investment (FDI) by disciplining officials and improving the environment for foreign investors. I substantiate this claim by examining how China's anti-corruption efforts and in particular, the ongoing large-scale anti-corruption campaign launched by Xi Jinping influence FDI inflow to China. Theoretically building a formal model and empirically using an original province-origin-level panel dataset for the period from 2008 through 2019, two-way fixed effects models, and a difference-in-differences strategy, I show that anti-corruption efforts are conducive to FDI inflow to China and such positive effects are more significant when the effort is in large-scale. Yet Xi's campaign has a non-differential effect on foreign investors from different origins. I propose three explanations for this non-differential effect: the sincerity of Xi's campaign, the effectiveness of the OECD Anti-Bribery Convention, and pre-campaign perfect price discrimination. These findings highlight the substantial effect and limitations of authoritarian anti-corruption efforts.

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# 1 Introduction

Corruption and its consequences have long been studied by economists and political scientists. Defined as “misuse of public office for private gain” (Bardhan 1997; Treisman 2007), corruption is detrimental to economic growth (e.g., Ades and Di Tella 1999). As domestic political risks have great impact on multinationals (Arel-Bundock, Peinhardt and Pond 2020; Henisz 2000; Wellhausen 2014), potential expropriation linked with corruption may similarly deter foreign direct investment (FDI), which is conceptualized as a “grabbing hand” (e.g., Barassi and Zhou 2012; Beazer and Blake 2018; Shleifer and Vishny 1993; Wei 2000; Zhu and Shi 2019). In order to curb rampant corruption, many governments around the world have adopted anti-corruption efforts (Brunetti and Weder 2003; Chapman et al. 2021; Olken 2007). The extant literature provides empirical evidence indicating that democracies characterized by effective institutions and property rights protection are correlated with lower risks and higher levels of FDI (Jensen 2003, 2008; Jensen et al. 2012; Li and Resnick 2003). Furthermore, it is observed that anti-corruption efforts contribute positively to FDI inflows within democratic contexts (Globerman and Shapiro 2002, 2003). However, less is known about the effect of anti-corruption efforts under authoritarianism, where institutions are weak and informal (Carothers 2020; Chang and Golden 2010; Pinto and Zhu 2016).

Conventional wisdom on anti-corruption efforts under authoritarianism is generally pessimistic about their nature and impact on authoritarian governance and economic activities. First, autocrats seem to have no reasons to curb rampant corruption from which they can solicit material benefits (Carothers 2020; Geddes 1999; Pei 2016). Second, most scholars tend to agree that the anti-corruption efforts are politically motivated by autocrats to target rivals (Zhu and Zhang 2017) and used as tools for factional purge (Li and Manion 2022; Xi, Yao and Zhang 2021) or to strengthen political control (Lanskoy and Myles-Primakoff 2018). Third, most studies believe that anti-corruption efforts will not have substantial effects under authoritarianism due to weak institutions and lack of incentives (Bueno de Mesquita et al. 2005; Geddes 1999; Magaloni 2006). Those few studies that measure the substantial effect of authoritarian anti-corruption efforts are limited to effects on domestic economic activities, for example, housing sales, land transactions, and luxury goods (e.g., Chen and Kung 2019; Chu, Kuang and Zhao 2019; Qian and Wen 2015). Does the anti-corruption effort under authoritarianism have a substantial effect? What is the effect of domestic anti-corruption efforts in authoritarian regimes on multinational activities like FDI, which is vital for economic growth?

This paper advances an alternative view of anti-corruption efforts under authoritarianism. Instead of viewing them as just politically motivated purges or factional struggles, I argue that authoritarian anti-corruption efforts have the nature of curbing corruption, which is not exclusive to political intentions, and these efforts which aim to improve governance quality under authoritarianism have substantial effects. More specifically, I argue that authoritarian anti-corruption efforts will increase the inflow of FDI and this effect will increase with the scale of anti-corruption efforts. By disciplining bureaucrats who no longer receive bribes on the demand side and creating a better investment environment which reduces the foreign investors' need to pay bribes on the supply side, the anti-corruption effort under authoritarianism brings in more FDI.

I place this argument in the context of China. The Chinese case is especially interesting because of the coexistence of spectacular economic growth and rampant corruption. Though since the 1980s, the Chinese government has waged a war against corruption, scholars keep skeptical of its nature and effect of curbing corruption. After Xi Jinping assumed power in 2012 as head of the communist party, he launched an ongoing large-scale anti-corruption campaign. Recent studies agree that the high reach and long duration of Xi's large-scale anti-corruption campaign distinguish it from previous efforts and make it the most intensive and protracted in the history of the People's Republic of China (Manion 2016; Wang and Dickson 2022; Wedeman 2016). As in the general literature, most existing research holds that anti-corruption efforts under authoritarianism are inherently constrained by poor institutions and limited accountability (Carothers 2020; Chang and Golden 2010), and Xi's campaign seems to be a political purge (Chen, Jin and Xu 2021) or a tool to legitimate the regime (Li and Manion 2022). Instead, my argument suggests that Xi's campaign, which happens in an authoritarian regime, actually serves more than factional struggles, and it has a substantial effect on FDI, especially when the effort is in a large scale.<sup>1</sup>

In addition, I make further examination of how Xi's campaign may influence investors from different origins heterogeneously. I distinguish the investors by their origins into two different groups: "cozy circle" investors and OECD circle investors. To elaborate on the classification, past literature holds that foreign investors from "cozy circle" countries (regions) like Hong Kong, Taiwan, and Singapore have more advantages than those from the OECD circle facing the corrupt environment, for instance, kinship, culture, language advantages (Wang 2015) as well as the ability to pay bribes in return for access, political connection, and property rights protection (Manion

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<sup>1</sup> In this paper, when referring to "large scale", I mean that in Xi's campaign, each individual anti-corruption case has a more pronounced impact compared to previous efforts.

1996; Wang 2014). These *ex ante* different advantages may give rise to possibly different investors' reactions to Xi's campaign. By building a formal model which characterizes the strategic interaction between authoritarian state and different foreign investors, I propose several Perfect Bayes Equilibrium (PBE) to study the potential heterogeneous effect of Xi's campaign.

Empirically, I analyze an original panel data set for matched province-origin level FDI of China between 2008 and 2019 and employ two-way fixed effects (TWFE) models and a difference-in-differences (DID) strategy to test my hypotheses. Although the compilation and publication of FDI data differ a lot among provinces, I overcome this challenge by managing to match 19 provinces with 9 FDI origins that captures the province-origin level FDI stream. I categorize the 9 origins into two groups: the "cozy circle" and the OECD circle. One crucial point to note is that I am not utilizing the Orbis database, as my aim is to analyze the comprehensive dynamics of FDI inflows into China from both OECD countries and origins around China, while the Orbis data presents limitations in coverage and representativeness (Bajgar et al. 2020).<sup>2</sup> Exploiting variations in FDI inflow from different origins within a province, I estimate how Xi's campaign, which is distinct from previous anti-corruption efforts in China influences the inflow of FDI and whether Xi's campaign has a potential heterogeneous effect on FDI from different origins. Consistent with my argument, I provide evidence that: (1) China's anti-corruption efforts have a substantially positive effect on FDI; (2) compared to previous anti-corruption efforts, Xi's campaign has significantly increased more FDI inflow to China; (3) Xi's campaign has a non-differential effect on FDI from different origins, namely, the cozy circle and the OECD circle.

I then conduct various robustness tests. All the tests do not challenge or change my original results. I also provide three explanations to this non-differential effect of Xi's campaign on foreign investors from different origins: the sincerity of Xi's campaign, the effectiveness of OECD Anti-Bribery Convention (ABC), and the pre-campaign perfect price discrimination which raises skepticism regarding the ability of cozy circle investors to leverage bribes for significant profits. These three explanations correspond to several critical conditions and assumptions for the equilibrium to hold in the game. My analysis suggests that each one of these mechanisms, which explains the dynamic of investment change on either the cozy circle side or OECD circle side, could induce the non-differential effect.

This study contributes to three strands of literature. First, by demonstrating the positive effect

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<sup>2</sup> As discussed by Bajgar et al. (2020), the Orbis database primarily encompasses firms that are, on average, older, larger, and more productive. Also, it is more suitable for studying within-firm changes.

of China's anti-corruption efforts on FDI inflow, this study contributes to a burgeoning literature on anti-corruption in China. Existing studies on China's anti-corruption efforts tend to mainly focus on the institutional design and political incentives behind the campaign-style reform (e.g., [Manion 2004, 2014](#); [Wedeman 2005](#)). Most scholars regard Xi's large-scale anti-corruption campaign as a publicity effort to legitimate Xi himself ([Li and Manion 2022](#)), a great political purge or factional struggle instead of an effort to sincerely curb corruption ([Zhu and Zhang 2017](#)), but have paid relatively limited attention to its potential substantial effects, which presumably provide another important angle in understanding authoritarian anti-corruption efforts as a way to improve governance. This study provides new evidence on how Xi's campaign, which happens under authoritarianism, affects the FDI that is central to economic growth. To the best of my knowledge, I am the first to study the potential heterogeneous effect of Xi's campaign on different foreign investors. The sincerity of Xi's campaign may induce this non-differential effect and demonstrate that the campaign is more than a political purge or factional struggle. By contrast, the pre-campaign perfect price discrimination, which could also partly explain the non-differential effect of Xi's campaign, indicates potential mechanisms of rampant corruption and limited effects of anti-corruption efforts in China. Moreover, the non-differential effect casts doubt on the effectiveness of OECD ABC.

This study also speaks to a relatively small literature on the authoritarian anti-corruption effort. The general view of this literature is that anti-corruption efforts in authoritarian regimes lack basic incentives so that these reforms are not sincere to curb corruption and are usually politicized as tools to purge rivals or engage in factional struggle (e.g., [Carothers 2020](#); [Li and Manion 2022](#); [Zhu and Zhang 2017](#)). In contrast to this view, my analysis suggests authoritarian anti-corruption efforts, though may include political intentions, do have a substantial effect, like boosting the inflow of FDI, and thus should be taken seriously. However, such a perspective is largely ignored by the extant literature. This orientation echoes a large body of literature on the source of durability under authoritarianism. Conventional wisdom contends that autocrats may build quasi-democratic or formal institutions to keep legitimacy and political survival (e.g., [Bueno de Mesquita et al. 2005](#); [Gandhi and Przeworski 2007](#); [Svolik 2012](#)), and such measures are more than simple rubber stamps or "window dressing" ([Gandhi 2008](#); [Svolik 2013](#)). For example, [Nathan \(2003\)](#) shows that building institutions can help authoritarian regimes increase their resilience; [Gandhi and Przeworski \(2006\)](#) propose that institutions can be utilized to reduce mass rebellions. These findings, along with my own, serve as a cautionary note that authoritarian anti-corruption efforts, which is a way to reform institutions and improve governance quality, should not be simply regarded as an insincere and

superficial measure used to purge rivals, and call for more careful and elaborate assessment of efforts to build good governance under authoritarianism.

Moreover, this study sheds light on the long-standing literature on corruption, especially in developing countries. Scholars have fiercely debated whether corruption is a “grabbing hand” or a “helping hand” (e.g., Egger and Winner 2005; Mauro 1995; Murphy, Shleifer and Vishny 1993; Wang 2014; Wei 2000). Although most scholars agree that corruption impedes economic growth and the FDI, several studies maintain that corruption may actually grease the wheel, especially in authoritarian regimes and developing countries (Ang 2020; Seligson 2002; Wang 2014). In this study, by showing the non-differential effect of Xi’s campaign on different investors and the possible pre-campaign perfect price discrimination, I suggest that corruption works as a “grabbing hand” rather than a “helping hand” even though in non-democracies and developing democracies. Accordingly, anti-corruption efforts to improve authoritarian governance are conducive to sustainable economic growth.

The remainder of this paper is organized as follows. Section 2 reviews the literature linking corruption, anti-corruption efforts, and FDI. Section 3 provides the background on China’s corruption and anti-corruption efforts. Section 4 proposes the formal model and three testable hypotheses. Section 5 presents the data and identification strategy. Section 6 exhibits the main empirical results and various robustness tests. Section 7 provides three explanations for the non-differential effect. Section 8 concludes.

## 2 Corruption, Anti-corruption Efforts, and FDI

Corruption is often blamed as the major reason for low economic growth rates in many developing countries (e.g., Mauro 1995; Murphy, Shleifer and Vishny 1993). In the political realm, corruption could also make local bureaucracy less transparent and undermine regime legitimacy (Seligson 2002; Smarzynska and Wei 2000).

Corruption in the host country can also undermine foreign direct investment (FDI), which is an important stimulus of economic growth. Existing research argues that domestic political risks are a major factor in multinational’s decision (Arel-Bundock, Peinhardt and Pond 2020; Henisz 2000; Wellhausen 2014) and democratic political institutions are conducive to FDI (Jensen 2003, 2008; Li and Resnick 2003). Many scholars find that there is a negative relationship between corruption and FDI, which is the “grabbing hand” interpretation (e.g., Barassi and Zhou 2012; Beazer and Blake

2018; Wei 1998, 2000; Zhu and Shi 2019). Foreign investors may try to avoid corruption, which becomes serious risks and obstacles for FDI (Habib and Zurawicki 2002; Jensen et al. 2012).

Given the distorting role of corruption, anti-corruption efforts have been made both internationally and domestically. The international community has made the fight against global corruption a high priority (Blundell-Wignall and Roulet 2017). The Foreign Corrupt Practices Act (FCPA) enacted in 1977 and the OECD Anti-Bribery Convention (ABC) signed by OECD countries and additional six non-OECD countries<sup>3</sup> are powerful means of discouraging and criminalizing bribery to foreign officials (Chapman et al. 2021). Empirical evidence suggests that countries adhering to the FCPA and the OECD ABC reduce investment in corrupt destinations. Similarly, anti-corruption efforts like free press (Brunetti and Weder 2003), top-down monitoring (Olken 2007), and the e-government (Elbahnasawy 2014) can be leveraged to curb corruption and build good governance domestically, as existing scholarship concludes that good governance is conducive to attracting more FDI. Globerman and Shapiro (2002) suggest that good governance will attract more net FDI flows for transitioning and developing economies. Cole, Elliott and Zhang (2009) conclude that FDI is attracted to provinces with relatively high levels of government efficiency and active anti-corruption efforts in China. More specifically, Fan et al. (2007) provide evidence that the provinces with less corruption and more private property rights protection receive disproportionately more inward FDI within China.

Corruption under authoritarianism is worth special attention. In the first place, autocracies being predatory cannot credibly commit to protect property rights (Olson 1991). Also, given its nature as a symptom of institutional failure, corruption is considered to be more prevalent under weak institutional environments (Chang and Golden 2010; Fan, Lin and Treisman 2009; Treisman 2000; Xi, Yao and Zhang 2021). As a result, the levels of corruption are expected to be higher in non-democracies due to inherent problems: weaker political competition and public pressure (e.g., Gehlbach, Sonin and Svolik 2016; La Porta et al. 1999; Qian and Wen 2015), lack of or selective accountability and responsiveness (e.g., Chen, Pan and Xu 2016; Lederman, Loayza and Soares 2005; Tsai 2007), poorly suited and informal institutions (e.g., Wang 2014; Xu 2011), absence of fair elections and check-and-balance, little transparency of government (e.g., Gandhi and Przeworski 2007; Magaloni 2006; Svolik 2012), lack of rule of law and property rights protection (e.g., Hou 2019; Wang 2015), and strict censorship (e.g., King, Pan and Roberts 2013; Roberts 2018).

Moreover, unlike in most democracies, the role of corruption could be “beneficial” in non-

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<sup>3</sup> The additional non-OECD countries are Argentina, Brazil, Bulgaria, Peru, Russia, and South Africa.



democracies. First, authoritarian rulers may benefit from corruption. [Pei \(2016\)](#) provides comprehensive case studies on how corrupt officials gather pecuniary interests from corruption in China. Autocrats also rely on distributing spoils and patronage through corruption to stay in power ([Carothers 2020](#); [Geddes 1999](#); [Svolik 2012](#)). Second, instead of a “grabbing hand”, corruption may actually work as a “helping hand” for foreign investors in authoritarian regimes and developing countries. [Egger and Winner \(2005\)](#) find that corruption has a stimulus role for FDI. [Seligson \(2002\)](#) argues that corruption is beneficial under authoritarianism because corruption may guarantee certain zones of freedom. [Wang \(2014\)](#) underscores that corruption could be leveraged as a substitute for property-protecting institutions and personal connections built through bribes could provide formal legal protection. [Wang \(2015\)](#) also states that foreign investors may use bribery in exchange for political connections and property rights protection in authoritarian China.

It seems that autocrats have little incentive to curb corruption. On the one hand, they benefit a lot from corruption, both economically and politically; on the other hand, anti-corruption as a reform is inherently constrained by weak and informal institutions in authoritarian regimes. Nevertheless, historical evidence suggests that anti-corruption does exist under authoritarianism. For example, Mao Zedong’s and Xi Jinping’s China, Chiang Kai-shek’s and Chiang Ching-kuo’s Taiwan, Kim Il-sung’s North Korea, Park Chung-hee’s and Chun Doo-hwan’s South Korea, Nguyen Van Linh’s Vietnam, and Ferdinand Marcos’s Philippines, etc ([Carothers 2020](#)).<sup>4</sup> Why are autocrats motivated to implement anti-corruption efforts which may harm their own interests and constrain their own power?

Conventional wisdom proposes that autocrats may build quasi-democratic or formal institutions to keep legitimacy and political survival (e.g., [Bueno de Mesquita et al. 2005](#); [Gandhi and Przeworski 2007](#); [Svolik 2012](#)). Scholars have reached the consensus that institutions under authoritarianism are not simple rubber stamps or “window dressing” ([Gandhi 2008](#); [Svolik 2013](#)). Building institutions can help authoritarian regimes increase their resilience ([Nathan 2003](#)), deal with power sharing problems within elites ([Svolik 2012](#)), secure regime support, and reduce mass rebellions ([Gandhi and Przeworski 2006](#); [Malesky and Schuler 2011](#)). Therefore, autocrats are not in the least unwilling to implement the anti-corruption effort, which is a way to reform institutions and build good governance ([Carothers 2020](#)).

Although autocrats may wage wars against corruption, existing literature keeps skeptical about whether authoritarian anti-corruption efforts are sincere. Some scholars hold that autocrats may

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<sup>4</sup> See [Carothers \(2020\)](#) for a full list of authoritarian anti-corruption efforts from 1950.



politicize the anti-corruption effort and deploy measures to purge political rivals, protect allies and clients (e.g., [Li and Manion 2022](#); [Xi, Yao and Zhang 2021](#); [Zhu and Zhang 2017](#)), and strengthen political control ([Lansky and Myles-Primakoff 2018](#)). Some scholars try to go beyond the political factors and examine the economic effect of authoritarian anti-corruption efforts, yet most studies focus on the impact of anti-corruption efforts on domestic economic activities, for example, housing sales, land transactions, luxury goods, and the resurgence of SOEs (e.g., [Chen and Kung 2019](#); [Chu, Kuang and Zhao 2019](#); [Fang et al. 2022](#); [Qian and Wen 2015](#)) and remain doubtful about its substantial effect on improving governance quality due to the absence of incentives under authoritarianism. Nonetheless, very few pay attentions to how domestic anti-corruption efforts to improve authoritarian governance will affect multinational economic activities, for instance, the FDI, which is consequential to economic growth.

This study goes against these expectations. As foreign investments are greatly influenced by the domestic governance of the destination, gauging the causal relationship between domestic anti-corruption efforts and FDI may supplement our understanding of the essence and dynamics of efforts to build good governance under authoritarianism. The central theoretical claim that I advance in this paper is that authoritarian anti-corruption efforts do have substantial effects, rather than a simplistic view of a political purge. I argue that authoritarian anti-corruption efforts, though maybe politically incentivized, can help autocrats build good governance and boost the FDI inflow.

### 3 China's Large-scale Anti-corruption Campaign and FDI

In this section, I will provide the background of China's corruption, anti-corruption efforts and FDI.

#### 3.1 FDI and China's Corruption

China exhibits a paradox in the post-Mao era ([Wedeman 2012](#), 14). On the one hand, China experienced an economic miracle. Between 1978 and 2007, the average real GDP growth reached 10 percent.<sup>5</sup> On the other hand, with the advent of reform, corruption became increasingly rampant. This forms a paradox as conventional wisdom holds that corruption and growth are negatively correlated ([Mauro 1995](#)). Despite the precarious investment environment, why and how does a

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<sup>5</sup> Data calculated from World Bank China annual GDP growth, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=CN>.

great deal of FDI still flow into China?

A way for foreign investors to cope with the weak institutional environment which is lack of property rights protection is to build political connections through bribery (Wang 2014). Wang (2001) discusses how foreign investors use informal personal networks or *guanxi* (关系) to make up for the weakness of the formal regulatory framework. *Guanxi*, as Wang (2001, 93) concludes, is a source of vital information, practical protection, and access to favorable policies. Despite the advantages of *guanxi*, Wang (2001, 88, 121) points out the potential problem. Both *guanxi* and bribery are informal relationships through which people exchange favors and it has become increasingly difficult to distinguish *guanxi* from corruption.<sup>6</sup> *Guanxi* can lead to corruption and bribery is sometimes used to build *guanxi*. Wang (2014) focuses on how corruption can work as a substitute for formal institutions to protect property rights by building political connections. Wang (2015) also illustrates that bribery by foreign invested enterprises (FIEs) is often used to gain commercial protection.

Bribery and corruption can be costly for foreign investors. For countries that are subject to strict anti-corruption rules imposed by their mother countries, for example, the FCPA and the OECD ABC, bribery is more taxing. Although few multinational enterprises (MNEs) could internalize the cost of bribes (Zhu 2017), in general, corruption is detrimental to FDI. Compared to a less corrupt investment environment with rule of law, the cost of using bribery to compete with local private enterprises and state-owned enterprises (SOEs) and to secure property rights protection is obviously higher. Therefore, foreign investors, even those who can use bribes in exchange for “privilege”, would prefer a clean and transparent environment. Anti-corruption campaigns, especially the one in a large scale would provide foreign investors with incentives to increase their investment.

### 3.2 China’s Corruption and Anti-corruption

Corruption has become a major political and social issue ever since 1978 (He 2000). The economic reform leads to a surge in corruption by opening up new channels for officials to misuse their authority to enrich themselves (Wedeman 2012, 80). Scholars have pointed out the dark side of the corruption in China that has run wild (e.g., He 2000; Wedeman 2012; Wei 1998). Pei (2007) warns that corruption is threatening China’s future: all kinds of loss owing to corruption is accumulating

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<sup>6</sup> Though *guanxi* and corruption have many things in common, they are conceptually different. *Guanxi* could be legitimately built by loyalty (义气) or feelings (感情), while corruption is the abuse of public office for private gain, which is totally illegal.

and increasing the likelihood of a major crisis.<sup>7</sup>

China has waged a war against corruption since the 1980s. Top leaders of China acknowledged that rampant corruption is becoming a gravest threat to the survival of communist party rule (Manion 2004, 119). In order to win this “protracted war”, the Central Commission for Discipline Inspection (CCDI) and the Supreme People’s Procuratorate (SPP) were re-established to supervise party members, investigate, and prosecute economic crimes. In addition, the Chinese government has employed a campaign-style anti-corruption strategy (反腐败斗争) (Manion 2004).<sup>8</sup> According to Manion (2004, 115), the Chinese government has launched five anti-corruption campaigns from 1978 to early 2000s.<sup>9</sup>

Given these anti-corruption efforts, whether they effectively deterred corruption is ambiguous (Manion 2014). The sincere feature of China’s anti-corruption endeavor (Manion 2004, 3) and China’s capacity of policy implementation should have paved the path for the success. However, the data of Transparency International Corruption Perception Index (CPI) in Table 1 illustrates the difficulties of anti-corruption in China before 2012. Manion (2004) discusses the problems of routine anti-corruption enforcement in China and points out that the campaigns may distort the punishment according to law. In nature, the campaigns work more like a legitimacy booster. Wedeman (2005) also suggests the limited effect of Chinese-style anti-corruption campaigns: such campaign-style enforcement may have actually contributed to the “intensification” of corruption.

### 3.3 Xi’s Large-scale Anti-corruption Campaign and FDI

Since President Xi Jinping took power on November 15, 2012, the Chinese Communist Party (CCP) launched a new anti-corruption campaign with the goal of “eliminating tigers and flies” (老虎苍蝇一起打), which targets both high-ranking and low-ranking corrupt officials (Wang and Dickson 2022). On December 4, 2012, the CCP announced the Eight-point Decision of the CCP Central Committee on Improving Party Conduct (中央八项规定), which provides a clear guidance for following efforts. By June 2021, 4,173,000 officials had been investigated and 3,804,000 officials have been punished for corruption.<sup>10</sup> The anti-corruption campaign led by Xi is considered as the most

<sup>7</sup> In her recent book, however, revising the assumption that all corruption retards growth, Ang (2020) defines four various corruption in China (petty theft, grand theft, speed money, and access money) and argues that not all forms of corruption are equally bad for economy, though corruption is never good.

<sup>8</sup> Manion (2004, 161) distinguishes the campaign-style movement in Mao era and post-Mao era. The mass movement or campaign in Mao era mobilize ordinary Chinese to participate in intensive and large-scale collective action (群众运动). The campaign in post-Mao era is more a “struggle” (斗争) without practice of mass mobilization.

<sup>9</sup> Three in the 1980s (1982, 1986, 1989) and two in the 1990s (1993 and 1995).

<sup>10</sup> See <https://www.chinanews.com.cn/gn/2021/08-26/9551854.shtml>.

TABLE 1: CHINA'S CPI AND WGI SCORE AND RANK

Year	CPI				WGI		
	CPI	Rank	Total	Percentile Rank	Estimate	StdErr	Percentile Rank
2000	31	63	90	0.70	-0.22	0.16	49.24
2001	35	57	91	0.62	N/A	N/A	N/A
2002	35	59	102	0.58	-0.52	0.16	35.35
2003	34	66	133	0.50	-0.36	0.15	44.95
2004	34	71	146	0.49	-0.56	0.14	34.63
2005	32	78	159	0.49	-0.61	0.14	33.17
2006	33	70	163	0.43	-0.51	0.13	37.07
2007	35	72	180	0.40	-0.59	0.14	33.50
2008	36	72	180	0.40	-0.52	0.14	36.41
2009	36	79	180	0.44	-0.51	0.13	36.84
2010	35	78	178	0.44	-0.56	0.13	33.33
2011	36	75	183	0.41	-0.51	0.14	37.91
2012	39	80	176	0.46	-0.44	0.13	40.28
2013	40	80	177	0.45	-0.36	0.13	44.55
2014	36	100	175	0.57	-0.34	0.12	45.67
2015	37	83	168	0.50	-0.28	0.12	48.08
2016	40	79	176	0.45	-0.25	0.13	49.04
2017	41	77	180	0.43	-0.27	0.12	46.63
2018	39	87	180	0.48	-0.27	0.12	45.67
2019	41	80	180	0.44	-0.30	0.13	45.19
2020	42	78	180	0.43	-0.07	0.14	52.88

*Note:* Data comes from Corruption Perception Index (CPI) published by Transparency International and Worldwide Governance Indicator (WGI) Control of Corruption published by World Bank. Before 2012, the CPI was 10 point scale. Here I transform all the CPI score into 100 point scale. The higher the score, the less corrupt the country is. WGI estimate ranges from -2.5 to 2.5. Percentile is calculated as the percentile China is in all ranked countries, ranges from 0 (lowest) to 100 (highest).

intensive and protracted in the history of the People's Republic of China (Wedeman 2016).

Xi's anti-corruption campaign is large-scale both in breadth and depth, as well as more institutionalized, which distinguishes itself from previous efforts. First, previous anti-corruption campaigns rarely reach the top tier of the CCP members,<sup>11</sup> while Xi's campaign starts with the slogan of "eliminating tigers and flies". By 2022, a total of 254 officials with the level above vice-minister and a total of 71 PLA officials with the level above deputy corps had been felled in this large-scale campaign, including the crackdown on national level officials, for example, Zhou Yongkang (周永康), Ling Jihua (令计划), and Xu Caihou (徐才厚). Second, this campaign witnessed a long duration with substantially increased intensity (Manion 2016). Combating corruption and building a clean government (反腐倡廉) still ranks as one of the top priorities in the Government Work Report

<sup>11</sup> The investigation of Zhou Yongkang (周永康) broke the taboo against jailing Politburo Standing Committee (PSC) members in the post-Mao era (刑不上常委) (Pei 2016, 2)

and forthcoming efforts till today.<sup>12</sup> Third, the campaign strengthened the CCDI as an institutional configuration to ferry out corrupt officials. Relying on CCDI instead of the local or regional commission's inspection, ensured political independence renders Xi's campaign more effective (Chen and Kung 2019).

Nevertheless, scholars hold different views about the nature of Xi's campaign, which happens in an authoritarian regime. Some view it as nothing but a great purge of Xi's opponents. Zhu and Zhang (2017) argue that authoritarian leaders politicize anti-corruption campaigns to target rivals' power networks to consolidate their own. Li and Manion (2022) define the crackdown in Xi's campaign as a great purge and show local CCP party bosses' strategic anti-client behavior. Xi, Yao and Zhang (2021) find that in Xi's campaign, bureaucrats without connection to the superior are more likely to be investigated. In the contrast, some argue that Xi's campaign cannot be simply understood as a purge or a factional crackdown. Lorentzen and Lü (2018) hold that the campaign was a broader reassertion of centralization rather than a factional purge. Wedeman (2017) compares Xi's campaign with Stalin's great purge and concludes that while a small part of the campaign could be politically motivated, the primary focus has been the anti-corruption. Similarly, Manion (2016) analyzes the campaign as an effort to deter corruption, instead of a simply disguised purge.

This campaign has had great effects in both political and economic realms. As Manion (2016) describes, Xi's campaign starts with the pledge to "confine the exercise of power within an institutional cage" (把权力关进制度的笼子里). By revising a set of regulations and laws, changing the government structure, institutionalizing anti-corruption, and emphasizing the role of the CCDI in the corruption investigation, Xi has spared no efforts to build clean governance (廉政). Drawing from CPI and Worldwide Governance Indicator (WGI) in Table 1, one can also see China's progress in curbing corruption. As Carothers (2020) suggests, Xi's campaign has substantially changed the behavior of officials and bureaucrats. For instance, the crackdown undermines local officials' routine to build factions and promote clients (Li and Manion 2022) and makes them pick followers according to principles conducive to maintaining the Party's rule, like political meritocracy (Lü and Lorentzen 2016). In the economic realm, Xi's campaign positively affects R&D investment and innovation (Xu and Yano 2017). In addition, the campaign significantly reduces price discrimination towards politically connected and disconnected firms in land transactions (Chen and Kung 2019). However, few studies examine how Xi's campaign, which makes a change to domestic governance, influences multinational economic activity like FDI. I provide the first empirical test on

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<sup>12</sup> See [http://www.gov.cn/premier/2022-03/12/content\\_5678750.htm](http://www.gov.cn/premier/2022-03/12/content_5678750.htm).

this important relationship in the pages that follow.

## 4 Theory and Model

### 4.1 Boosting Effect of Anti-corruption Campaign

An investment environment with rule of law and less corruption is highly demanded to attract more foreign investors. Conventional wisdom proposes that corruption reduces the inflow of FDI (e.g., Barassi and Zhou 2012; Habib and Zurawicki 2002) and that FDI flows to those localities with good governance, high government efficiency, and protection of property rights (e.g., Globerman and Shapiro 2002, 2003). Although in authoritarian regimes and developing countries, corruption may work as a “helping hand”, the removal of corruption is rather than bad news for investors. What is the effect of China’s enduring anti-corruption efforts on the inflow of FDI? I propose the following hypothesis:

**HYPOTHESIS 1** (Overall Boosting Effect): China’s enduring anti-corruption effort, on the margin, increases the inflow of FDI to China, *ceteris paribus*.

How has Xi’s large-scale anti-corruption campaign, which is distinct from previous efforts, influenced the inflow of FDI to China? Three aforementioned features of the campaign produce a relatively stronger effect on FDI. First, the removal of top-tier and national-level officials may induce a chilling effect on other elites (Wang 2022). They may try to discipline themselves and reduce their rent-seeking behaviors to avoid the scope of the central investigation. Second, the long duration and high intensity of Xi’s campaign demonstrate the communist party’s determination to curb corruption and build a clean government. Third, strengthened CCDI and Central Inspection Team increase the independence and effectiveness of Xi’s campaign, compared to previous efforts. These three features, which reflect increased scale of anti-corruption efforts, may elicit greater responses from foreign investors. On the one hand, Xi’s campaign more intensely aims to build clean governance, which is in great demand by foreign investors. On the other hand, the large-scale crackdown on corruption reduces foreign investors’ need to use bribery in exchange for political connection (Wang 2001), property right protection (Wang 2015), access to licenses (Manion 1996), and less burdensome regulations and red tape (Kaufmann and Wei 1999). Will Xi’s large-scale anti-corruption campaign attract more FDI to China compared to previous efforts? I propose the following hypothesis:

**HYPOTHESIS 2** (Stronger Boosting Effect): When considering an equal number of anti-corruption cases, the positive impact on FDI inflows is more pronounced in Xi's campaign compared to previous ones, *ceteris paribus*.

## 4.2 Heterogeneous Effect of Xi's Campaign

Foreign investors are themselves heterogeneous. FDI origins can be divided into two different groups: "cozy circle" like Hong Kong, Taiwan, Macau, and Singapore; "OECD circle" like the United States, Britain, Germany, and France. Though all foreign investors face obstacles like corruption, they still have different levels of cost for these "conventions" in China. As Wang (2015, 33) argues, investors from Hong Kong and Taiwan are ethnic Chinese. They have language and kinship advantages, which make doing business easier (Naughton 2006, 416-417). They may also bribe local officials in return for property rights protection and political connection. OECD circle investors, however, lack the ethnic advantage and also are under strict anti-corruption rules like the FCPA and the OECD ABC (Wang 2015, 34). Investing in China is more costly and difficult, and they are less tolerant of a corrupt environment than their "cozy circle" counterpart.

The decision of curbing corruption by the state and the decision of increasing or decreasing FDI by foreign investors can be regarded as a strategic interaction. I employ a game theoretical model to gauge the nexus between the state and investors.

### 4.2.1 Model

In an authoritarian regime, anti-corruption efforts are often perceived to be window dressing or utilized by authoritarian rulers to purge political rivals. However, under the circumstance like Xi's large-scale campaign, instead of a charade of the anti-corruption as a cheap talk, this exaggerated campaign itself is a very costly signal that may convince foreign investors of the improved investment environment. Thus, under this setup, the authoritarian state as the signal sender could have two types: sincere ( $S$ ) or insincere ( $\neg S$ ). Each type has two strategies: high-profile anti-corruption ( $H$ ) or low-profile anti-corruption ( $L$ ).<sup>13</sup> Foreign investors as the signal receiver also have two types: cozy ( $C$ ) or OECD ( $O$ ). However, investors types are common knowledge. In the model, however, state cannot target only one type of investor, which means that the state is facing a population of investors and this population consists of two types of investors. Assume that  $\beta \in (0, 1)$  proportion

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<sup>13</sup> Here by high-profile I mean a large-scale campaign like Xi's one, which is put as the priority of the regime's tasks. Low-profile refers to those routine anti-corruption without propaganda.



of investors is from the cozy circle, while  $1 - \beta$  proportion is from the OECD circle. Their different types will determine their different payoffs. When investors see the signal from the state, they may make decisions on their investment behaviors: to increase significantly ( $I$ ) or weakly increase or keeps as before ( $K$ ). For investors, investing in a corrupt environment induces a cost which is integrated to their payoff of investment in different regime type  $\pi_i, i \in \{S, \neg S\}$ . The cost of bribery is lower in a state that is sincere to curb corruption so  $\pi_S > \pi_{\neg S}$ . Also, there is a regulation cost  $r > 0$  for all investors. If the investor chooses  $K$ , it has a payoff 0. As aforementioned, there are two types of investors: cozy circle and OECD circle investors. For OECD circle investors, choosing to increase the investment in an insincere state induces an extra cost: OECD investors may try to use bribes in return for “privilege”, but due to the FCPA and OECD ABC, they face a sanction  $s > 0$  imposed by their mother countries for bribing local officials. The authoritarian state can get a  $\alpha \in (0, 1)$  proportion from the FDI as revenue  $\alpha\pi_i, i \in \{S, \neg S\}$ . Such a revenue also depends on investors’ strategy: it depends on the proportion of investors choosing  $I$ . When OECD circle and cozy circle investors have different strategies,  $\beta$  decides the amount of revenue the state can extract. Implementing a high-profile anti-corruption campaign induces a cost  $v_i > 0, i \in \{S, \neg S\}$  for the state, and it is more costly for a  $\neg S$  state to implement a high-profile anti-corruption campaign. If the investor chooses  $K$ , the state does not receive benefit from the investment. Assume  $\pi_S > r > \pi_{\neg S}$  because if  $r > \pi_S$ , investors never increase their investment, and if  $r < \pi_{\neg S}$ , investors always increase their investment.

The setup is summarized as the following.

- $N = \{\text{State}, \text{Investor}\}$ .
- $\theta_S \in \{S, \neg S\}, Pr(S) = p, \theta_I \in \{C, O\}$ .
- $s_S \in \{H, L\}, s_I \in \{I, K\}$
- Investor:  $U(I|S) = \pi_i - r, U(I|\neg S) = \pi_i - \mathbb{1}_{\theta_I=O} s - r, U(K) = 0, i \in \{S, \neg S\}$
- State:
 
$$U(S) = \begin{cases} \alpha[\mathbb{1}_{a_I(C)=I}\beta + \mathbb{1}_{a_I(O)=I}(1 - \beta)]\pi_i - v_i & s(S) = H, i \in \{S, \neg S\} \\ \alpha[\mathbb{1}_{a_I(C)=I}\beta + \mathbb{1}_{a_I(O)=I}(1 - \beta)]\pi_i & s(S) = L, i \in \{S, \neg S\} \end{cases}$$
- $\pi_S > r > \pi_{\neg S}, v_S < v_{\neg S}$

### 4.3 Equilibrium Characterization

States may play a separating strategy, in which they can signal their regime type by their strategies.

**Proposition 1** *If  $\frac{v_{-S}}{\pi_{-S}} \geq \alpha \geq \frac{v_S}{\pi_S}$ , the following strategies and beliefs constitute a Perfect Bayesian Equilibrium:  $s_S(S) = H, s_S(\neg S) = L, s_I(H) = I, s_I(L) = K$ .*

The proof is provided in Appendix A. As shown in Proposition 1, in the separating equilibrium, investors as the signal receiver can easily use the signal to distinguish between two types of state and make the best response. Since our goal here is to examine the potential heterogeneous effect of the large-scale anti-corruption campaign on different investors, we need to focus on circumstances that investors use their updated posterior belief to make decisions.

Consider the pooling strategy in which two types of state play the same strategy. There are two circumstances: (1)  $s_S(S) = s_S(\neg S) = H$ ; (2)  $s_S(S) = s_S(\neg S) = L$ . In both cases, investors cannot distinguish the regime type directly by state's strategy. They need to update their belief using their prior belief. I will show that corresponding to the theory I presented before, OECD investors are less tolerant of a corrupt environment, and they need a higher posterior belief  $Pr(S|H)$  for them to increase their investment after observing a high-profile anti-corruption campaign.

**Proposition 2** *Suppose OECD ABC is effective,  $\alpha\beta\pi_S \geq v_S, \alpha\beta\pi_{-S} \geq v_{-S}, s_S(S) = s_S(\neg S) = H, Pr(S|H) = p$ , we have the following two conditions:*

(1) *If  $p \geq \frac{s+r-\pi_{-S}}{s+\pi_S-\pi_{-S}}$  and  $Pr(S|L) \leq \frac{r-\pi_{-S}}{\pi_S-\pi_{-S}}$ , then  $s_I(H) = I, s_I(L) = K$  is a Perfect Bayesian Equilibrium for both circle investors.*

(2) *If  $\frac{s+r-\pi_{-S}}{s+\pi_S-\pi_{-S}} \geq p \geq \frac{r-\pi_{-S}}{\pi_S-\pi_{-S}}$  and  $Pr(S|L) \leq \frac{r-\pi_{-S}}{\pi_S-\pi_{-S}}$ , there are following two conditions for a Perfect Bayesian Equilibrium:  $s_I(H) = I, s_I(L) = K$  for cozy circle investors and  $s_I(H) = s_I(L) = K$  for the OECD circle investors.*

The proof is provided in Appendix A. Proposition 2 indicates that for both circle investors, they will need to update their posterior belief based on the state's signal  $H$  and distinguish between a sincere and an insincere state. Only when their posterior belief  $Pr(S|H)$  is sufficiently high, will they choose to increase their investment. Similarly, investors will assign a probability of regime type  $S$  ( $Pr(S|L)$ ) sufficiently low that they choose  $K$ . One thing worth noting here is that cozy circle and OECD circle investors have different critical values for both  $Pr(S|H)$  and  $Pr(S|L)$  (i.e., OECD circle investors require higher  $Pr(S|H)$  and  $Pr(S|L)$  to play the equilibrium strategy  $s_I(I|H)$  and  $s_I(K|L)$ ). This is because the sanction  $s$ , assuming the effectiveness of OECD ABC, makes them

less tolerant of a corrupt environment. I only consider two cases that are relevant to our focus mentioned before: how the large-scale campaign heterogeneously influence different investors. In fact, there should be  $3 \times 3 = 9$  cases in total, considering different values of  $Pr(S|H)$  and  $Pr(S|L)$ , but most of them are neither PBE nor relevant to our focus here.

Also, we assume that OECD ABC is effective here. When this assumption does not hold, it is easy to show that two circle investors can be regarded as the same, since their difference is induced by the term  $s$ . Then given the condition proposed in Proposition 2, the PBE holds for both circle investors when  $Pr(S|H) \geq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$  and  $Pr(S|L) \leq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ .

For the state, the condition  $\alpha\beta\pi_i > v_i, i \in \{S, \neg S\}$  makes sure that both types of the state will not deviate to  $K$  even not all investors choose  $I$ . This condition is crucial for the existence of different PBEs where investors have different strategies. Since the state face a population of investors and can only play one strategy at one time, without this condition, the PBE in condition (2) does not hold anymore. When OECD circle investors deviate to  $K$ , following the weak consistency, state will deviate to  $L$ . Such a condition actually makes state have more degrees of freedom in this strategic interaction. It will not change its strategy immediately when the investors deviate, but will patiently weigh the payoff according to the proportion of OECD circle investors.

I discuss the other pooling equilibrium in Appendix A. The PBEs in Proposition 3 again demonstrate that OECD circle investors are less tolerant of corruption, so they need a higher  $Pr(S|H)$  as their posterior belief to be convinced that the state is sincere when observing a  $H$ . However, as  $L$  is both types of the state's best response,  $H$  is never played in the equilibrium, which is not our focus here.

According to the above equilibrium characterization, we can conclude that compared to cozy circle investors, OECD circle investors are less tolerant of a corrupt environment. They always need to assign a sufficiently high (low) belief to the sincere (insincere) state when they observe a high-profile anti-corruption campaign. When their belief locates in a certain interval, cozy circle and OECD circle investors will have heterogeneous responses. Therefore, I propose the following testable hypothesis and alternative hypothesis:

**HYPOTHESIS 3** (Heterogeneous Boosting Effect): Compared to foreign investors from the OECD circle origins, cozy circle investors more greatly increase the inflow of FDI facing Xi's large-scale anti-corruption campaign, *ceteris paribus*.

**HYPOTHESIS 3.1** (Non-differential Boosting Effect): Compared to foreign investors from the OECD

circle origins, cozy circle investors similarly increase the inflow of FDI facing Xi's large-scale anti-corruption campaign, *ceteris paribus*.

## 5 Data and Empirical Strategy

The goal of this paper is to study the effect of China's anti-corruption efforts on the inflow of FDI. I construct an original panel data set to identify the causal effect. Since my hypotheses require FDI data from different origins to different provinces in different years, I tried to use the Statistical Yearbook of each province to collect FDI data. However, due to the provincial differences in data compilation and publication, some provinces do not report provincial FDI origins and amounts, for example, Jilin, Hubei, Inner Mongolia, and Sichuan.<sup>14</sup> Thus I utilize the available data to match provinces and origins in each year and construct each observation as *Province(X) – Origin(Y) – Year(T)* which can be treated as a measure of the FDI stream from origin *Y* to province *X* in a specific year *T*. Through my construction, I can analyze FDI inflows from the cozy circle and the OECD circle, which means my individual fixed effect is controlled at matched province-origin level instead of the provincial level. The dataset covers 19 provinces and 9 FDI origins from 2008 to 2019.<sup>15</sup>

### 5.1 Dependent Variable

My dependent variable is the inflow of FDI. I collect the actually utilized FDI according to agreements and contracts from 9 origins to each province in different years. Due to the availability of data on FDI, the 9 origins are Hong Kong, Taiwan, Singapore, Japan, South Korea, the United States, the United Kingdom, Germany, and France. One thing worth noting is that in both the provincial level statistical yearbook and China Statistical Yearbook, the British Virgin Islands ranks top in the amount of FDI inflow. However, as Zucman (2021) argues that the British Virgin Islands is one of the famous tax havens, which means there could be much "round-tripping" capital originating from mainland China and coming back disguised as foreign investment. Therefore, I exclude the British Virgin Islands from my analysis. As mentioned above, each observation is matched as "province – origin – year" and I use logarithm transformation before analysis.

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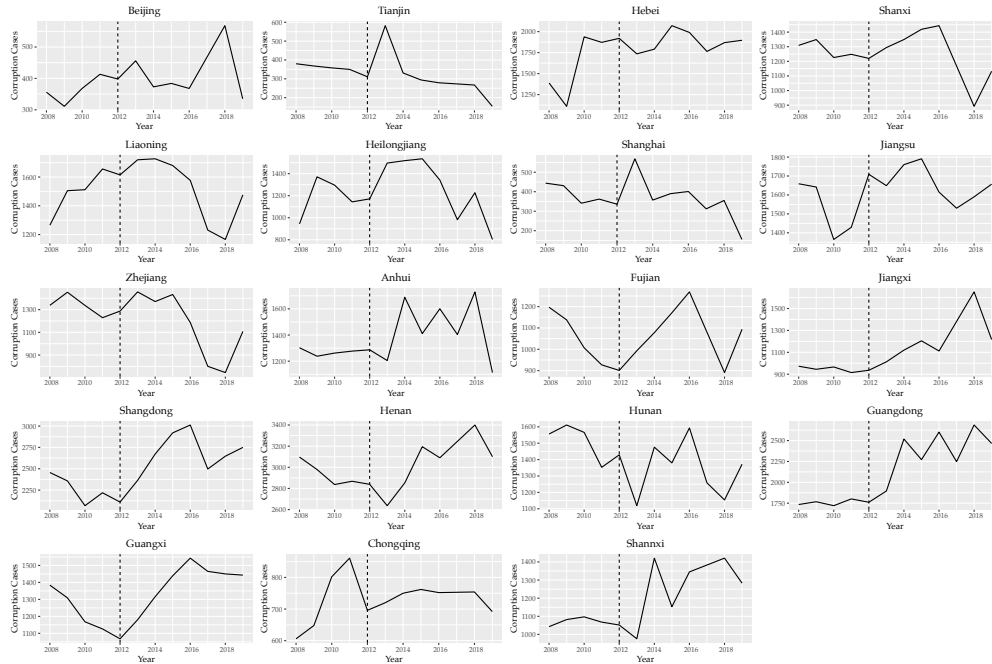
<sup>14</sup> In addition, data for Qinghai, Tibet, Gansu, Ningxia, Xinjiang, Guizhou, and Yunnan are highly noisy or missing.

<sup>15</sup> I set the period of my data as 2008 - 2019 for the reason that the policies of the regime would be more consistent inside one term (5 years). 2008 - 2012 is the second term of Hu Jintao while 2013–2018 is the first term of Xi Jinping.

## 5.2 Independent Variable

For hypothesis 1, the independent variable is *Anticorruption Effort* which measures the intensity of anti-corruption efforts. Following Wang and Dickson (2022) and Jiang, Shao and Zhang (2022), I use the number of investigated corruption cases in each province as the index of *Anticorruption Effort*.<sup>16</sup> In robustness checks, I also use year-end investigated corruption cases per million population and per 10,000 public officials (Wang and Dickson 2022) as alternative measures to capture the anti-corruption effort. As Figure 1 shows, considering provincial variances in responding to the central policy and different trends of the Central Inspection Team, most provinces experienced a distinct increase in investigated corruption cases within two years after the start of the campaign in 2013.<sup>17</sup> Thus, it is plausible to use investigated corruption cases as an index of anti-corruption efforts.

FIGURE 1: DYNAMICS OF INVESTIGATED CORRUPTION CASES OF EACH PROVINCE



For hypothesis 2, the treatment is *Anticorruption Effort*, and interacted with the time indicator. The estimator will capture the differences in the effect of anti-corruption efforts before and after

<sup>16</sup> Stromseth et al. (2017) use misused public fund discovered by China National Auditing Office (CNAO 中国审计署) as a measure for corruption but the data is only available to 2011 and more data on the CNAO website has very different statistical calibers and provincial variances. See <https://www.audit.gov.cn/n5/n1482/index.html>

<sup>17</sup> Though normally the declaration of “Eight Point” is regarded as the start of Xi’s campaign, some argue that it is ambiguous when it was first released. An arguable clearer signal of Xi’s campaign is the dispatch of CCDI inspection team led by Wang Qishan (王岐山) in May 2013 (Fang et al. 2022).

2012 on FDI.

For hypothesis 3, the treatment is the implementation of Xi's large-scale anti-corruption campaign. As indicated by Figure 1, the implementation of Xi's campaign can be regarded as an exogenous shock to foreign investors. Therefore, a quasi-experiment method could be leveraged to study the potential heterogeneous effect of Xi's campaign. In this paper, OECD circle investors are treated as the treatment group and cozy circle investors are treated as the control group because OECD circle investors are expected to benefit more from Xi's campaign, which may update their belief about the investment environment. Since Xi assumed power at the end of 2012, the time indicator is 1 after 2012.

### 5.3 Control Variables

I also construct a set of control variables that could be determinants of FDI to minimize the potential omitted variable bias and endogeneity. *Regional GDP per capita (log)* captures the real GDP per capita in every province. *Average Education* is the index of average years of education of the population over 6 years old in each province. It is calculated as:  $Average\ Education = (illiteracy \times 0 + primary\ school \times 6 + junior\ middle\ school \times 9 + senior\ middle\ school \times 12 + university\ and\ above \times 16) / total\ population\ over\ 6$ . *Average Education* captures the local human capital, which is of important consideration for investors. *Infrastructure* is calculated as the total rail mileage in a province dividing the regional territorial area, which captures the transportation and infrastructure of the specific region. Investors may take advantage of good infrastructure to reduce costs. *Average Wage* captures the human cost in local regions and is calculated as the average wage of urban employed workers. Low labor cost is often regarded as one important feature attracting investors to China. *Population Density* is calculated as the fraction of regional population to the regional territorial area. It captures the potential market size and land prices. *Secondary* and *Tertiary* capture the regional industrial structure and are calculated as the proportion of second and tertiary industry to regional GDP, respectively. The higher the proportion, the more developed the local economy will be, which may bring more profits to foreign investors. *Government Size* is measured as the government's financial expenditure to provincial GDP because larger government expenditure is believed to positively influence corruption. Table B1 exhibits the summary statistics.

## 5.4 Empirical Strategy

To test the first hypothesis that anti-corruption efforts are conducive to the FDI inflow to China, I use ordinary least squares (OLS) to fit the following TWFE model:

$$\ln(FDI_{ijt}) = \alpha + \lambda Anticorruption\ Effort_{i,t-1} + \mathbf{X}\boldsymbol{\gamma} + \eta_{ij} + \delta_t + \varepsilon_{ijt} \quad (1)$$

where  $\ln(FDI_{ijt})$  is the amount of FDI province  $i$  receives from origin  $j$  in year  $t$ . The variable  $Anticorruption\ Effort_{i,t-1}$  is the number of investigated corruption cases in province  $i$  and year  $t - 1$ . I lag one year behind because the decision of FDI in year  $t$  will be influenced by the anti-corruption effort in the previous year  $t - 1$ .  $\lambda$  is the estimator of our interest, which measures the causal effect of anti-corruption effort on FDI inflow. I also include a set of control variables including *GDP per capita*, *Average Education*, *Infrastructure*, *Average Wage*, *Population Density*, *Secondary*, *Tertiary*, *Government Size*, and *FDI* with one year lagged after logarithm transformation, denoted by matrix  $\mathbf{X}$ .  $\eta_{ij}$  is the province-origin fixed effect and  $\delta_t$  is the year fixed effect.  $\varepsilon_{ijt}$  is the error term. I use clustered bootstrap standard errors at the province level to deal with the potential problem of over-rejection and some loss of power due to the small number of clusters (19) (MacKinnon, Nielsen and Webb 2023).<sup>18</sup>

In order to test the second hypothesis that Xi's large-scale anti-corruption campaign is more conducive to the inflow of FDI to China than previous efforts, I use OLS to fit the following TWFE model to my panel data set:

$$\begin{aligned} \ln(FDI_{ijt}) = & \alpha + \beta_1 After2012_t + \beta_2 Anticorruption\ Effort_{i,t-1} \\ & + \beta_3 After2012_t \times Anticorruption\ Effort_{i,t-1} + \mathbf{X}\boldsymbol{\gamma} + \eta_{ij} + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (2)$$

where  $\ln(FDI_{ijt})$  is the amount of FDI province  $i$  receives from origin  $j$  in year  $t$ ,  $After2012_t$  is a time indicator of Xi's campaign ( $\mathbb{1}_{\{t>2012\}} = 1$ , and omitted when including the year fixed effect),  $Anticorruption\ Effort_{i,t-1}$  is the number of investigated corruption cases in province  $i$  and lagged one year.  $\beta_3$  is the estimator of our interest, which measures the differences between the average effects of anti-corruption effort on FDI after and before 2012 and is expected to be positive.<sup>19</sup> Matrix

<sup>18</sup> I also report the results with standard error clustered at the province level without bootstrap clustering and the results using wild bootstrap standard error clustered at the province level as a robustness test in the appendix.

<sup>19</sup> Here, I interact the time indicator with anti-corruption effort. Another possible way is to interact the time indicator with an effort intensity indicator as a treatment: according to the literature, Xi's campaign is more intensive and has higher level of effort than previous ones (Manion 2016; Wedeman 2017). Thus, it is plausible to define a binary variable



$\mathbf{X}$  denotes control variables,  $\eta_{ij}$  is the province-origin fixed effect and  $\delta_t$  is the year fixed effect.  $\varepsilon_{ijt}$  is the error term. Similar to the first specification, I use clustered bootstrap standard errors at the province level.<sup>20</sup>

As discussed in the previous section, Xi's campaign distinguishes itself from previous anti-corruption campaigns in China. Although efforts have been made to curb corruption since the 1980s, Xi's campaign stands out for its high-reach and long duration, surpassing any previous efforts in post-Mao China (Manion 2016; Wedeman 2017). For investors, this large-scale campaign works as a strong signal, expressing the regime's desire to fight against corruption. Based on the model I build and the descriptive evidence shown in Figure 1, the implementation of Xi's campaign can be regarded as an exogenous shock to foreign investors. Following extant literature on Xi's campaign (Fang et al. 2022; Qian and Wen 2015; Wang and Dickson 2022), I adopt a DID design to analyze the heterogeneous effect of Xi's campaign on foreign investors from different origins. I choose OECD circle investors as the treatment group and cozy circle investors as the control group. I adopt the official release of Eight Point Decision on December 4, 2012, as the beginning of the campaign, and estimate the following equation:

$$\begin{aligned} \ln(FDI_{ijt}) = & \alpha + \rho_1 After2012_t + \rho_2 OECD_{ij} \\ & + \rho_3 After2012_t \times OECD_{ij} + \mathbf{X}\gamma + \eta_{ij} + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (3)$$

where  $\ln(FDI_{ijt})$  is the amount of FDI province  $i$  receives from origin  $j$  in year  $t$ ,  $After2012_t$  is a time indicator of the implementation of Xi's campaign ( $\mathbb{1}_{\{t > 2012\}} = 1$ , and omitted when including the year fixed effect),  $OECD_{ij}$  is a dichotomous variable which equals 1 if the origin  $j$  is inside the OECD circle, equals 0 if the origin  $j$  is inside the cozy circle.<sup>21</sup>  $\rho_3$  is the DID estimator of our interest.<sup>22</sup> If  $\rho_3$  is significantly different from 0, then we can conclude that Xi's campaign has a

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*Effort* to indicate the level of effort (i.e., 1 when the level is high). However, due to the variance across provinces in implementing Xi's campaign and the variance in the level of effort across time, using this binary variable may ignore the dynamics of Xi's campaign, as shown in Figure 1. Callaway, Goodman-Bacon and Sant'Anna (2021) also suggest that continuous treatment variables can provide richer information than a binary variable can. Therefore, the interaction between the time indicator and the anti-corruption effort, which is time-varying, could better capture the dynamics of Xi's campaign on FDI inflow.

<sup>20</sup> Similarly, I report the results with standard error clustered at the province level without bootstrap clustering and the results using wild bootstrap standard error clustered at the province level as a robustness test in the appendix.

<sup>21</sup> To be specific, origins including Japan, South Korea, the United States, the United Kingdom, Germany, and France belong to the OECD circle, the indicator equals 1. Origins including Hong Kong, Taiwan, and Singapore belong to the cozy circle, the indicator equals 0.

<sup>22</sup> Although Xi's campaign was declared in 2013, different provinces may have variances in implementing such policy, which means that the treatment time varies. As suggested by Goodman-Bacon (2021),  $\rho_3$  is actually a weighted average of all possible DID effects. In the placebo test, I change the implementation time to 2014. The result remains

heterogeneous effect on the FDI from different countries (regions). I also include a set of control variables the same as the ones in Equation 1, plus lagged corruption cases investigated, shown as matrix  $X$ .  $\eta_{ij}$  is the province-origin fixed effect and  $\delta_t$  is the year fixed effect.  $\varepsilon_{ijt}$  is the error term.

## 6 Main Result

### 6.1 Overall Boosting Effect

Table 2 reports the OLS estimates of the effect of anti-corruption efforts on FDI. Column (1) presents the baseline model without control variables. Column (2) includes all the control variables except lagged FDI and column (3) include all the control variables. All three columns include province-origin and year fixed effects with bootstrap standard errors clustered at the province level. The coefficient of *Anticorruption Effort* remains statistically significant. Keep everything else constant, as column (3) exhibits, on average, 100 more investigated corruption cases bring 5% more FDI from each origin to each province. The difference in the coefficients in column (2) and (3) may be due to the inclusion of lagged FDI, as the FDI in the previous year may greatly predict the FDI in the following year. Controlling lagged FDI captures the time trend, thus is helpful to rule out the potential internal correlation problem. To sum up, the empirical results support Hypothesis 1 that *ceteris paribus*, anti-corruption efforts are conducive to the inflow of FDI.

### 6.2 Stronger Boosting Effect

Table 3 reports regression results of the differences in the average boosting effect of anti-corruption effort on FDI after and before 2012. Column (1) presents the baseline model with both province-origin and year fixed effects. Column (2) includes all the control variables except lagged FDI and controls for both province-origin and year fixed effect. Column (3) includes both province-origin and year fixed effect as well as all the control variables. Regardless of which specification I use, the interaction term is consistently positive and statistically significant. With controls, as column (3) shows, compared to before 2012, 100 more investigated corruption cases bring an average of 4% more increase in the inflow of FDI to each province from each origin (since the observation is matched province-origin). Figure 2 shows the differences in the marginal effect of anti-corruption effort after and before 2012, conditional on the number of investigated corruption cases. The connected dots denote the marginal effects and the bars denote the 95% confidence interval. It is

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unchanged.

TABLE 2: THE EFFECT OF ANTI-CORRUPTION EFFORT ON FDI IN CHINA (2008 - 2019)

	(1)	(2)	(3)
	<b>FDI</b>	<b>FDI</b>	<b>FDI</b>
	(bootstrap C.S.E)	(bootstrap C.S.E)	(bootstrap C.S.E)
<i>Anticorruption Effort</i>	0.0009*** (0.0003)	0.0007*** (0.0002)	0.0005** (0.0002)
<i>N</i>	1882	1882	1848
<i>Adjusted R<sup>2</sup></i>	0.742	0.759	0.776
<i>P-O Fixed Effect</i>	✓	✓	✓
<i>Year Fixed Effect</i>	✓	✓	✓
<i>Control Variables</i>		✓	✓
<i>Number of Clusters</i>	19	19	19

Note: This table reports the benchmark results. All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Bootstrap clustered standard errors at the province level are reported in parentheses. *P-O Fixed Effect = Province-Origin Fixed Effect*  
<sup>\*</sup>  $p < 0.1$ , <sup>\*\*</sup>  $p < 0.05$ , <sup>\*\*\*</sup>  $p < 0.01$

straightforward to observe that as the investigated corruption cases increase, the differences in the marginal effect increase and become significantly bigger than 0. It means that compared to the anti-corruption effort before 2012, Xi's campaign is more conducive to FDI. Figure B1 shows the marginal effect of previous efforts and Xi's campaign on FDI, respectively.

Similar to the explanation in Section 6.1, the difference in the coefficients of column (3) and (4) shows that FDI in the previous year greatly explains FDI in the coming year. In sum, Hypothesis 2 is supported: *ceteris paribus*, compared to efforts before 2012, Xi's campaign is more conducive to the inflow of FDI to China.

### 6.3 Heterogeneous Boosting Effect

Table 4 reports the DID results. Column (1) presents the most parsimonious model. Column (2) controls province-origin fixed effect and column (3) controls both province-origin and year fixed effects. Column (4) controls all the control variables plus lagged corruption cases investigated, as well as both fixed effects. As the table exhibits, the interaction term, which is the DID estimator, is not statistically significant in all specifications.<sup>23</sup> Even in the most parsimonious model shown in column (1), the point estimate is still not significantly different from 0. Drawing from this re-

<sup>23</sup> One note here is that the coefficient of the DID estimator is negative. This also corresponds to the PBE presented in Section 4.3. In the robustness test (column (4) in Table B8), I drop Hong Kong and the United States. The coefficient turns positive but still not significant.

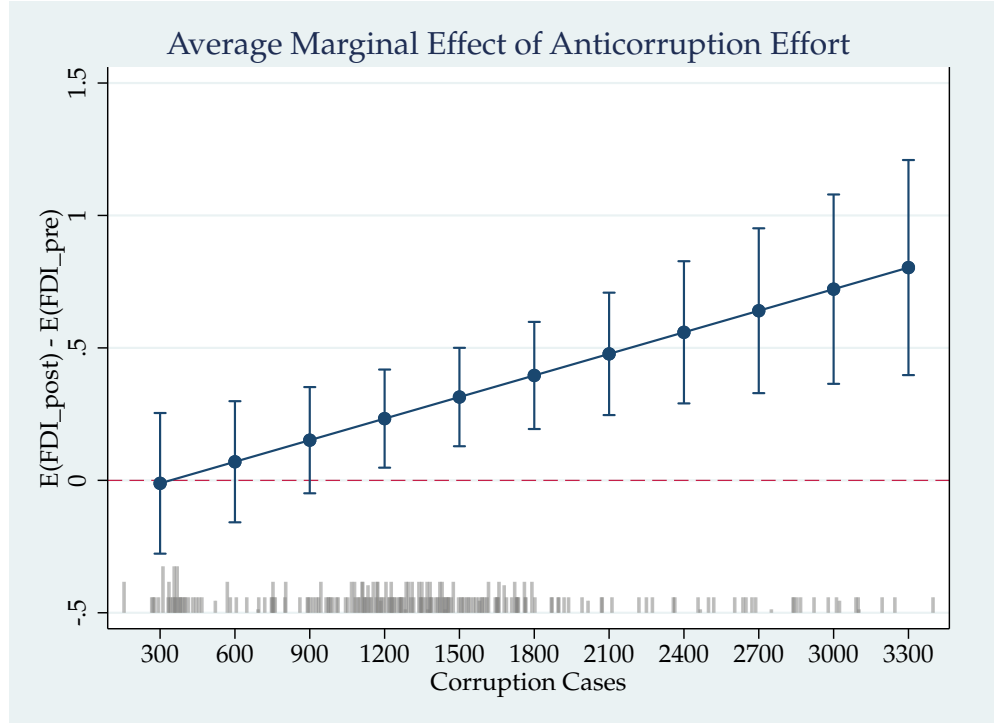
TABLE 3: DIFFERENCES IN BOOSTING EFFECT BEFORE AND AFTER 2012

	(1)	(2)	(3)
	<b>FDI</b>	<b>FDI</b>	<b>FDI</b>
	(bootstrap C.S.E)	(bootstrap C.S.E)	(bootstrap C.S.E)
$2012 \times \text{Anti Effort}$	0.0003* (0.0002)	0.0005** (0.0002)	0.0004** (0.0002)
$N$	1882	1882	1848
$\text{Adjusted } R^2$	0.743	0.762	0.777
$P\text{-}O \text{ Fixed Effect}$	✓	✓	✓
$\text{Year Fixed Effect}$	✓	✓	✓
$\text{Control Variables}$		✓	✓
$\text{Number of Clusters}$	19	19	19

Note: This table reports the results of differences in boosting effect before and after 2012. All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Bootstrap clustered standard errors at the province level are reported in parentheses.  $P\text{-}O \text{ Fixed Effect}$  = Province-Origin Fixed Effect

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

FIGURE 2: DIFFERENCES IN BOOSTING EFFECT OF ANTICORRUPTION EFFORT



Note: This figure plots the differences in the marginal effect of Xi's campaign and previous anti-corruption efforts on FDI. The dots denote the point estimates. The bar denotes 95% confidence interval. The gray bars denote the density of corruption cases.

sult, we cannot reject Hypothesis 3.1, which is the alternative hypothesis of Hypothesis 3, that Xi's campaign does not have heterogeneous effect on FDI from different origins. In the robustness test, I use the interaction term of *Anticorruption Effort* and *OECD* as my specification and show that the coefficient is consistently not statistically significant. To sum up, the DID results in Table 4 show that Xi's campaign significantly attracts more FDI to China after 2012, but there is no significant difference between the attraction to cozy circle and OECD circle investors.

TABLE 4: EFFECT OF ANTI-CORRUPTION EFFORT ON FDI FROM DIFFERENT ORIGINS

	(1)	(2)	(3)	(4)
	FDI	FDI	FDI	FDI
<i>After2012 × OECD</i>	-0.0477 (0.2015)	-0.1385 (0.1141)	-0.1394 (0.1131)	-0.0909 (0.1040)
<i>N</i>	1883	1882	1882	1848
<i>Adjusted R<sup>2</sup></i>	0.153	0.732	0.736	0.776
<i>F</i>	114.0	11.65	1.520	28.58
<i>Province-Origin Fixed Effect</i>		✓	✓	✓
<i>Year Fixed Effect</i>			✓	✓
<i>Control Variables</i>				✓

*Note:* This table reports the DID results of the effect of Xi's campaign on FDI from different origins. Column (1) does not include fixed effect and control variables. Column (2) includes the province-origin fixed effect and column (3) includes both province-origin fixed effect and year fixed effect. Column (4) controls all the control variables as in Equation 1 plus lagged corruption cases investigated as well as fixed effects. Province-origin clustered standard errors are reported in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## 6.4 Robustness Check

In this section, I do robustness tests of hypotheses above. I also do the parallel trend test to validate the TWFE models and DID strategy employed in Hypotheses 2 and 3. Finally, I use different specifications to test the non-differential effect.

### 6.4.1 Robustness Test and Placebo Test

I first use alternative measures of anti-corruption effort to do the robustness test of Hypotheses 1 and 2. I use investigated corruption cases per million population and per 10,000 public officials to

re-run Equation 1 and 2. The correlation between *Anticorruption Effort (cases)* and *Anticorruption Effort (pop)* is 0.3684 ( $p < 0.01$ ), the correlation between *Anticorruption Effort (cases)* and *Anticorruption Effort (public)* is 0.3528 ( $p < 0.01$ ). I also perform two other robustness tests and one placebo test. First, I drop provinces that have connections with Xi Jinping due to the possibility that Xi's campaign will be less intensive in these provinces which are protected by Xi because of the patron-client tie (Jiang, Shao and Zhang 2022; Wang and Dickson 2022).<sup>24</sup> Second, I drop Hong Kong and the United States from the origins of FDI. Hong Kong, as suggested by Wei (1998), is very complicated and contains many "round-tripping" capital that is disguised as foreign capital to get preferential policies. Also, in 2016 Donald Trump assumes president of the US and brings big variation to Sino-US relations, and 2018 witnesses the start of a trade war between the two big powers. In addition, although Xi's assumes power in 2012 and declared the "Eight Point" in 2013, the actual implementation of the campaign may have some time lag. Therefore, I change the implementation time of Xi's campaign from 2013 to 2014 as a placebo test. As Table B6 shows, all these tests do not change or challenge the original results.

#### 6.4.2 Parallel Trend Test

One central assumption for the validity of fixed effects analysis and DID design is the parallel trend assumption. In hypothesis 2, the assumption is that in the absence of Xi's campaign, the amount of FDI change induced by the unit change of anti-corruption effort should be constant over time. One possible violation of this parallel trend assumption is that, for example, Xi's campaign is implemented to units that have already exhibited trends of fast growth in FDI or Xi's campaign is intentionally implemented to units that have low FDI inflow to attract FDI. To investigate whether the parallel trend assumption holds, I run the following equation to capture the stronger boosting effect of Xi's campaign in hypothesis 2:

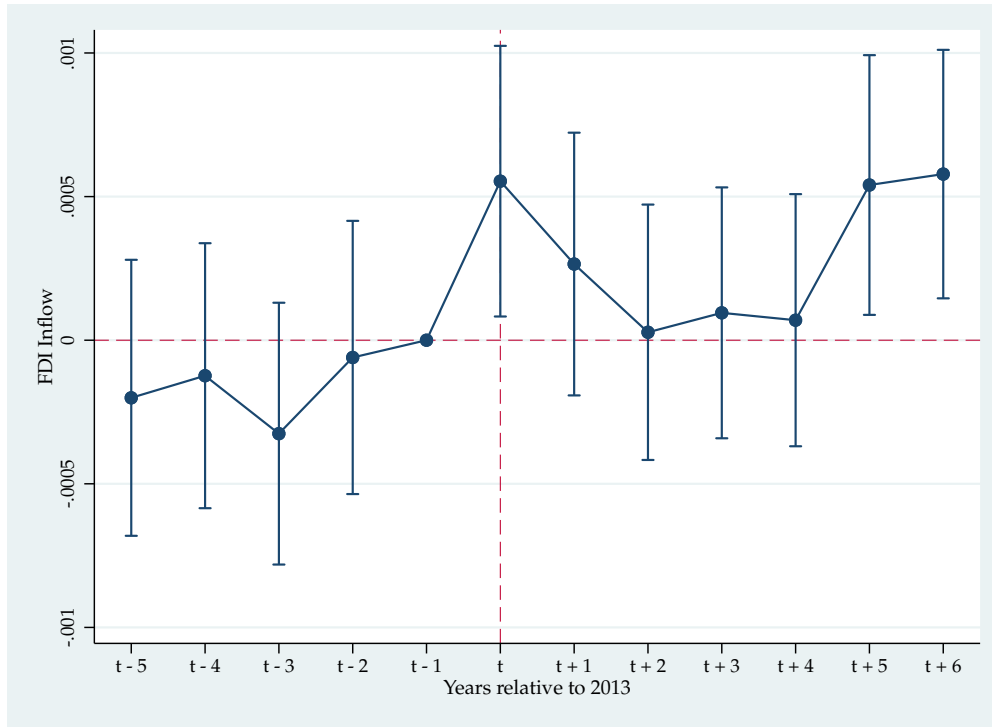
$$\begin{aligned} \ln(FDI_{ijt}) = & \sum_{\tau \in \{-5, -4, -3, -2, 0, 1, 2, 3+\}} \psi_{\tau} \tau Years After 2013_{\tau} \times Anticorruption Effort_{i, \tau-1} \\ & + \phi Anticorruption Effort_{i, \tau-1} + \sum_{t=2008}^{2019} X\gamma \times \delta_t + \eta_{ij} + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (4)$$

where  $\tau Years After 2013_{\tau}$  is a set of dummy variables that indicating  $\tau$  years after the implementation of anti-corruption campaign and  $-5 \leq \tau \leq 3+$ , where 3+ refers to 3 years or more. One

<sup>24</sup> These provinces include Shanghai, Zhejiang, Fujian, and Shannxi.

year before the implementation of Xi's campaign (2012) is left as the comparison group.  $X \times \delta_t$  are control variables interacted with year fixed effect to capture the linear trend brought by control variables. If the parallel trend assumption holds, we should expect the coefficients of dummies indicating years before of Xi's campaign,  $\psi_{-5}, \psi_{-4}, \psi_{-3}, \psi_{-2}$  are not significantly different from 0. The point estimates are shown in column (1) and (2) in Table B7. As Figure 3 shows, this provides reassuring evidence that compared to previous anti-corruption efforts, Xi's campaign is more conducive to FDI.

FIGURE 3: STRONGER BOOSTING EFFECT OF XI'S CAMPAIGN



Note: This figure is used to test the parallel trend for the TWEF model in hypothesis 2. The points indicate the differences in Xi's campaign and previous efforts on FDI. The bars are 95% confidence interval, see Table B7 column (2) for the point estimates.

For the DID strategy used to test hypothesis 3, the parallel trend assumption is that, in the absence of Xi's campaign, the difference in FDI inflow from the OECD circle and the cozy circle to the same province is constant over time. One possible violation of this parallel trend assumption is that the units (matched province-origin) that received the treatment are systematically different from those units that did not. The campaign might have targeted specific units because they have low levels of FDI inflow or high levels of corruption. In order to validate the pre-campaign parallel

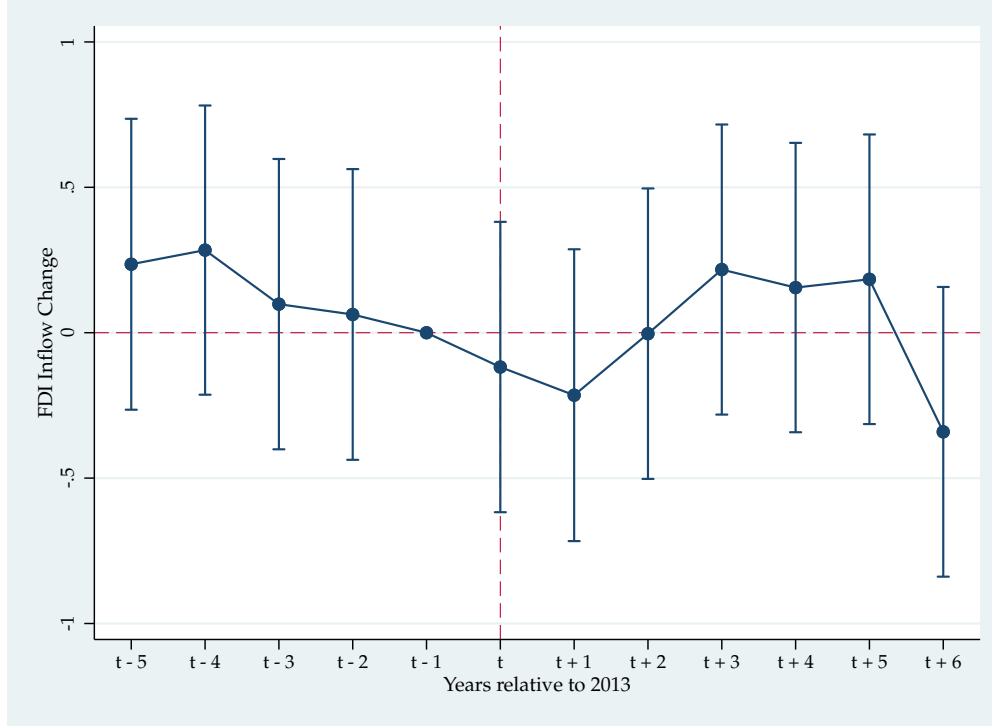


trend assumption, I employ a specification similar to Equation 4:

$$\begin{aligned} \ln(FDI_{ijt}) = & \sum_{\tau \in \{-5, -4, -3, -2, 0, 1, 2, 3+\}} \psi_{\tau} \tau \text{Years After 2013}_{\tau} \times OECD_i \\ & + \phi OECD_i + \sum_{t=2008}^{2019} X_t \gamma \times \delta_t + \eta_{ij} + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (5)$$

If the parallel trend assumption holds, we should expect that  $\psi_{-5}, \psi_{-4}, \psi_{-3}, \psi_{-2}$  are not significantly different from 0, similarly. The test results are reported in column (3) and (4) in Table B7 and the estimates of column (4) are also shown in Figure 4.

FIGURE 4: DYNAMICS OF FDI INFLOW BEFORE AND AFTER CAMPAIGN



Note: This figure shows the dynamic of FDI inflow before and after the implementation of Xi's campaign and is used to test the parallel trend assumption of the DID strategy. The horizontal line measures year relative to 2013 when the campaign started. The points connected by the solid line indicate the change of FDI inflow compared to one year before the implementation of Xi's campaign, which is displayed as an effect of 0 to aid visual analysis. The bars are 95% confidence interval, see Table B7 column (4) for the point estimates. Standard errors are clustered at province-origin level.

### 6.4.3 Non-Differential Effect

The above robustness checks present the consistently significant overall boosting effect of authoritarian anti-corruption efforts and stronger boosting effect of Xi's campaign on increasing FDI,

which support Hypotheses 1 and 2. However, the DID analysis in Section 6.3 has shown that Xi's campaign has a non-differential effect on increasing FDI from the OECD circle and the cozy circle. In order to test this non-differential effect, I run the following alternative specification:

$$\begin{aligned} \ln(FDI_{ijt}) = & \alpha + \kappa_1 OECD_{ij} + \kappa_2 Anticorruption\ Effort_{i,t-1} \\ & + \kappa_3 OECD_{ij} \times Anticorruption\ Effort_{i,t-1} + \mathbf{X}\boldsymbol{\gamma} + \eta_{ij} + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (6)$$

where the coefficient  $\kappa_3$  is similar to the DID estimator which captures the difference in change in FDI inflow from the OECD circle and the cozy circle induced by Xi's campaign, indexed by investigated corruption cases. I also change the sample following the robustness tests above to drop Hong Kong and the United States. In addition, I re-run Equation 3 without Hong Kong and the United States. The results are presented in Table B8. As these four columns show, Xi's campaign has a non-differential effect on FDI from different origins.

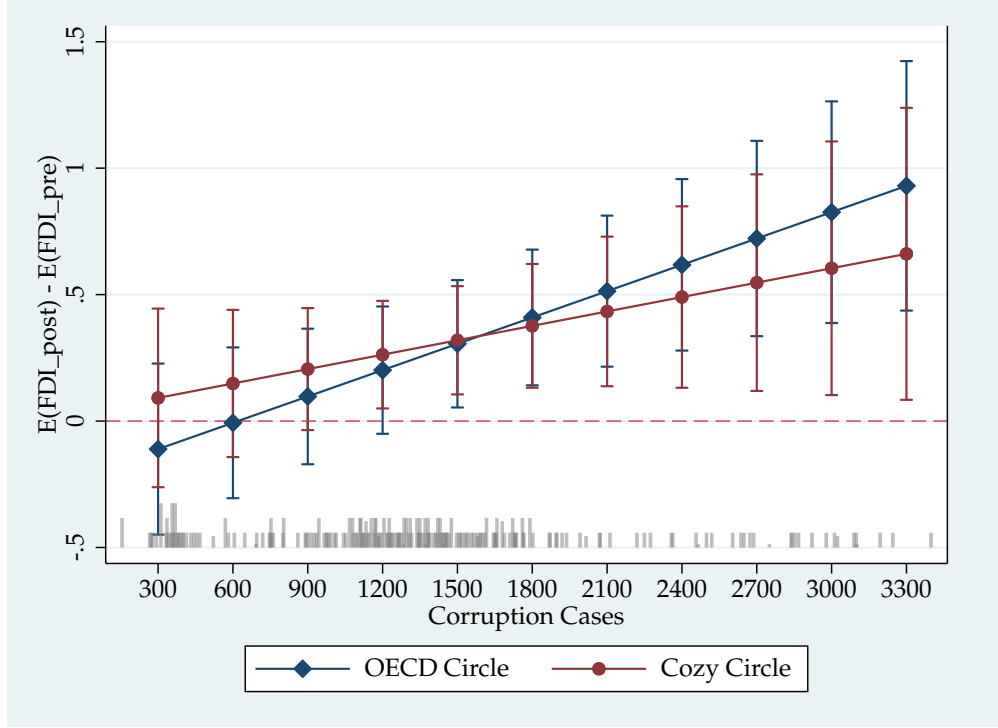
I also employ the following specification to simulate the effect of *Anticorruption Effort* on FDI inflow change for the OECD circle investors and the cozy circle investors before and after the implementation of Xi's campaign:

$$\begin{aligned} \ln(FDI_{ijt}) = & v_1 OECD_{ij} + v_2 Anticorrupt\ Effort_{i,t-1} + v_3 After2012_t \times OECD_{ij} \\ & + v_4 OECD_{ij} \times Anticorrupt\ Effort_{i,t-1} + v_5 After2012_t \times Anticorrupt\ Effort_{i,t-1} \\ & + v_6 After2012_t \times OECD_{ij} \times Anticorrupt\ Effort_{i,t-1} + \mathbf{X}\boldsymbol{\gamma} + \xi_{ij} + \mu_t + \varepsilon_{ijt} \end{aligned} \quad (7)$$

Figure 5 plots the marginal effects captured by  $v_6$ . The diamond dots denote the OECD circle while the circle dots denote the cozy circle. There are three main takeaways from this figure. First, it shows that Xi's campaign significantly increases FDI from both circles more than previous efforts, supporting hypothesis 2. Second, the slope of the OECD circle is steeper than that of the cozy circle. However, only when the corruption cases are more than 1350, does the difference of FDI from OECD circle become significant, as indicated by the confidence interval. This means that compared to cozy circle investors, OECD circle investors need more investigated corruption cases to believe the sincerity of the campaign. This corresponds to the equilibrium characterized in Section 4.3 that OECD circle investors are less tolerant of corruption. However, when they are convinced, they may increase investment more than their cozy circle counterparts given the same amount of change in corruption cases. This is because they can benefit more from a clean investment environment while

cozy circle investors can cope with corruption using their ethnic advantages. Third, the differences in FDI change between the two circles is not significant, indicated by the overlapping confidence intervals. Figure B2 plots the FDI change from two circles in two periods.

FIGURE 5: NON-DIFFERENTIAL EFFECT OF XI'S CAMPAIGN



Note: This figure plots the marginal effect of Xi's campaign on FDI from OECD countries and cozy circle countries before and after 2012. The diamond dots denote OECD circle while the circle dots denote cozy circle. The bar denotes 95% confidence interval.

Why does Xi's campaign increase the FDI from both circles homogeneously? I propose three alternative explanations in the next section.

## 7 Alternative Explanations

### 7.1 A Sincere Anti-corruption Campaign

Assume that OECD ABC is effective, the first explanation to the non-differential effect of Xi's campaign lies in its sincerity. As discussed in Section 4.3, there exists a PBE that both circle investors choose to increase their investment when observing a large-scale anti-corruption campaign. Such PBE requires that investors assign a sufficiently high (low) probability to the type  $S$  ( $\neg S$ ) before they make their responses. Consider the relatively simpler example, as shown in Proposition 2,  $Pr(S|H) = p \geq \frac{(1-p)s+r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ . This means that  $Pr(S|H)$  needs to be at least  $\frac{(1-p)s+r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$  to make

both circle investors increase their investment. Since this is a pooling equilibrium and according to Bayes rule,  $Pr(S|H) = Pr(S)$ , so the higher the state being sincere, the higher the  $Pr(S|H)$ , then the OECD circle investors will be more convinced that the anti-corruption campaign is sincere.

The above analysis requires that Xi's campaign is a sincere effort to curb corruption. Although existing studies hold that autocrats would utilize anti-corruption as a tool for factional struggle (Carothers 2020) and Xi's campaign is just a political purge (Li and Manion 2022; Zhu and Zhang 2017), I hold an opposite view. I argue that Xi's campaign could have dimensions of improving governance quality and reforming institutions, rather than a simple political purge. Xi's campaign is believed to be the most protracted one in post-Mao China (Wang and Dickson 2022) with both high reach and long duration, and more institutionalized investigation (Manion 2016). This campaign started with slogans of eliminating both tigers and flies, as well as targeting top tier party and military leaders. Some reports also show that Xi's campaign builds a more transparent business environment and reduces business costs, which resembles the reshuffle of enterprises.<sup>25</sup> Although we may never know the true essence of this campaign, the formal model and the non-differential effect to some extent prove that Xi's campaign could be sincere in fighting against corruption, at least in the period of my analysis (2012 - 2018).

In sum, if Xi's campaign is sincere enough to curb corruption, it is possible that both circle investors increase their investment significantly, but do not have significant difference between each other.

## 7.2 Effectiveness of OECD ABC

The second explanation to the non-differential effect of Xi's campaign on different investors is the effectiveness of OECD ABC. As the equilibrium in Section 4.3 states, I assume that OECD ABC is effective. Under this assumption, OECD and cozy circle investors have a difference in their payoff function: the term  $s$ . Due to this term, two circle investors have different critical values for them to update their posterior belief of the state type and then choose their best response, which may induce heterogeneous strategies. However, when this assumption does not hold, two circle investors have the same payoff function, thus, the campaign may have a non-differential effect on different investors.

Although OECD ABC place a constraint on bribery to local officials, its effectiveness is still questionable. As Chapman et al. (2021) suggest, although the OECD ABC reduces the bribery

<sup>25</sup> See <http://politics.people.com.cn/n/2015/0213/c70731-26564580.html>

among firms from member countries, it may lead these firms to shift to bribery through intermediaries. Subject firms may contract with a non-subject firm as a form of regulatory evasion. When the possibility of costly enforcement is strong at home and the transfer to subcontracted firms is small, such kind of regulatory evasion, which weakens the effectiveness of OECD ABC, is more likely (Chapman et al. 2021). Jensen and Malesky (2018) also note that only among countries that instituted serious monitoring and punishment does the effectiveness of OECD ABC show. Bonucci and Moulette (2007) underline that the effectiveness of OECD ABC hinges on implementation by the leading emerging countries. It is essential for countries like China to join in the effort to combat international corruption. In the same vein, Cuervo-Cazurra (2008) concludes that regulations like OECD ABC need to be implemented and coordinated in multiple countries to become effective. Otherwise, investors will have the incentive to circumvent the regulatory to compete with investors from other countries that are not bounded by the constraints.

Therefore, unless the OECD ABC is effective enough that ensures the existence of terms in OECD circle investors' payoff function, two circle investors may play the same equilibrium strategy, as shown by the non-differential effect of Xi's campaign.

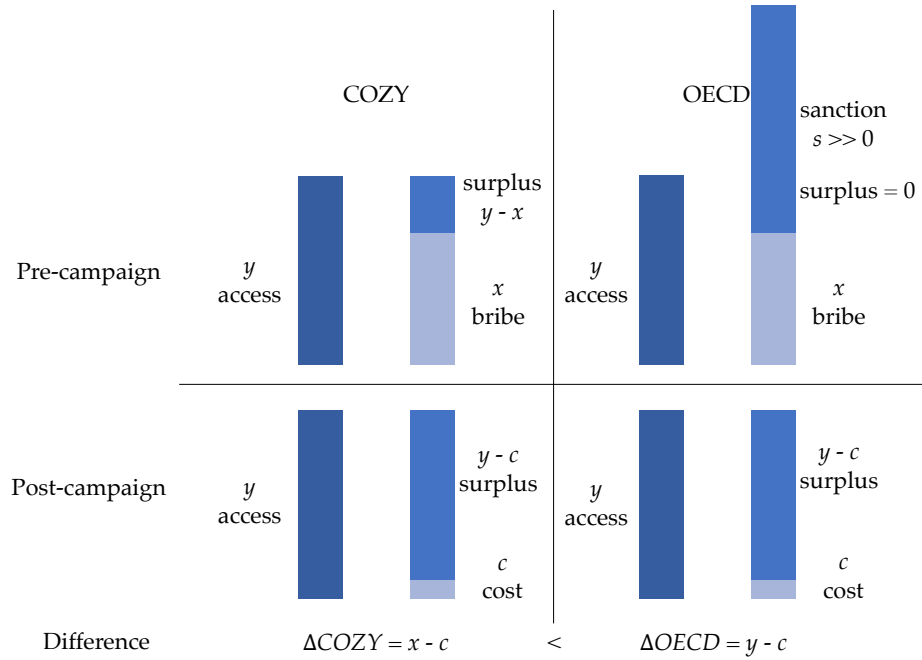
### 7.3 Pre-campaign Perfect Price Discrimination

In addition to the previous two explanations which focus on the OECD circle, I propose a third explanation: the pre-campaign perfect price discrimination which focuses on the cozy circle.

Before Xi's campaign, cozy circle and OECD circle investors face different obstacles. Cozy circle investors can use *guanxi* and ethnic advantages to help their investment. Also, since they are not constrained by anti-bribery restrictions, they may pay bribes to gain access, protection, and connection. Given the case that the demand for bribes by local officials is a deterministic function of the price, consumer surplus is one thing that is worth considering (Cohen, Perakis and Thraves 2022). Imagine a deal of "privilege" through bribes between local officials and foreign investors. Suppose the highest price investors are willing to pay for the "privilege" is  $y$ , and they actually pay bribes at price  $x$ , then as a consumer in this deal of "privilege", their consumer surplus is  $COZY_{before} = y - x > 0$ . OECD circle investors, however, have neither ethnic advantages nor are they able to pay bribes in return for "privilege" due to the OECD ABC, which imposes stringent sanctions against paying bribes to local officials. In other words, the highest price they are willing to pay in return for "privilege" is  $y$  but the real price they need to pay, considering the sanction, may be far greater than  $y$ . Thus, the consumer surplus of OECD circle investors is  $OECD_{before} \rightarrow 0$ .

After Xi's campaign, we should observe a change in investment patterns and the environment. First, Xi's campaign aims to curb corruption by disciplining power. Under this campaign with high-reach and wide-breadth, many corrupt officials are felled, and local officials tend to behave themselves more in order to secure their positions (Wang 2022). This reduces the demand side of bribery. Second, with the goal of building clean governance, the campaign improves the domestic investment environment (Chen and Kung 2019). This reduces the supply side of bribery by foreign investors, which helps them cut their costs of investment. Accordingly, for both cozy circle and OECD circle investors, the campaign is a signal of reduction of barriers. Therefore, their consumer surplus would change into  $COZY_{after} = OECD_{after} = y - c$ , the highest price they are willing to pay for "privilege" ( $y$ ) minus the real price ( $c$ ) they pay to start (or operate) their investment which is fairly small. For cozy circle investors, Xi's campaign increases their possible consumer surplus by  $\Delta COZY = x - c$ , while for OECD circle investors, the campaign increases their consumer surplus by  $\Delta OECD = y - c$ . If  $y - x \gg 0$ , we can show  $\Delta COZY \ll \Delta OECD$ , which implies that OECD circle investors have more increase in its consumer surplus. Figure 6 shows the possible change.

FIGURE 6: CONSUMER SURPLUS OF FOREIGN INVESTORS



Given different changes in consumer surplus of two circle investors, we should expect that they have different responses to Xi's campaign. However, there is a crucial assumption to validate the

argument: namely that the consumer surplus of cozy circle investors before the campaign is much greater than zero ( $y - x \gg 0$  or  $y \gg x$ ). This assumption requires that cozy circle investors can earn significant large profits after buying the “privilege” through bribes. This assumption is plausible because (1) we do not know how local officials set the price for these “privileges”; and (2), as long as foreign investors are willing to pay bribes, it means they can gain profits, otherwise they will not pay. The null empirical results for hypothesis 3 cast doubt on this crucial assumption. Cozy circle investors may only gain a consumer surplus not much greater than 0. In other words, the price they paid for the “privilege” seriously suppresses their profit opportunities.

One possible explanation for this tiny consumer surplus is local officials’ pre-campaign perfect price discrimination. The decentralization after the economic reform in China granted considerable power and autonomy to local governments (Cai 2008; Montinola, Qian and Weingast 1995). Given their power, local officials became local monopolists who can abuse their power to monopolize local market. Therefore, if local officials have enough information about the profit margins of foreign investors who pay bribes, they can set individual prices for them. In this way, local officials as monopolists can suppress the consumer surplus of cozy circle investors by applying perfect price discrimination. In other words, although cozy circle investors can buy “privilege” through bribes before the campaign, due to the perfect price discrimination applied by local officials, they do not make significantly more profits than do OECD circle investors. Thus, both circle investors have the similar incentives to invest more to enlarge the profit opportunities after the removal of the perfect price discrimination (Chen and Kung 2019; Chu, Kuang and Zhao 2019).

## 8 Conclusion

Conventional wisdom holds that corruption will deter economic growth and FDI inflow (e.g., Habib and Zurawicki 2002; Shleifer and Vishny 1993). However, few studies discuss how anti-corruption efforts can influence the inflow of FDI, especially in non-democracies. Scholars are also skeptical about whether the anti-corruption effort under authoritarianism is sincere and tend to regard authoritarian anti-corruption efforts as political purges (e.g., Li and Manion 2022; Xi, Yao and Zhang 2021; Zhu and Zhang 2017); very few discuss the substantial effects of governance-improving measures to curb corruption under authoritarianism (e.g., Chen and Kung 2019; Qian and Wen 2015).

China exhibits a paradox for its combination of savage corruption and great attraction for FDI



(Wedeman 2012). Although China has waged six anti-corruption campaigns since the 1980s, including the most intensive one launched by Xi Jinping after his assumption of power in 2012 (Manion 2016), how the domestic authoritarian anti-corruption efforts influence multinational economic activities like FDI is yet to be answered. This paper argues that authoritarian anti-corruption efforts have a substantial effect of increasing the inflow of FDI and this effect increases with the scale of anti-corruption efforts. Focusing on Xi's large-scale anti-corruption campaign, my theoretical model and empirical analysis demonstrate that Xi's campaign increases more FDI inflow compared to previous anti-corruption efforts and has a non-differential effect on foreign investors from different origins. Additional analysis further suggests that three mechanisms may explain this non-differential effect: the sincerity of Xi's campaign, the effectiveness of OECD ABC, and pre-campaign perfect price discrimination.

Findings from this study may supplement our understanding of anti-corruption efforts in China. The predominant view on China's anti-corruption efforts focuses on the lack of incentives and sincerity to curb corruption and on political considerations for intra-elite struggles (Li and Manion 2022; Zhu and Zhang 2017). While these political aspects are not irrelevant or unimportant, the goal of this study is to highlight that authoritarian anti-corruption efforts in China have substantial effects like increasing the inflow of FDI and should be taken seriously. To the extent that these substantial effects are important but often less visible, ignoring them may lead to the bias in investigating authoritarian efforts to improve governance quality.

More broadly, arguments advanced in this study are also relevant for understanding authoritarian anti-corruption and institutions outside China. Scholars have noted that governance improvement like anti-corruption took place in authoritarian regimes without competitive elections (Carothers 2020). While the coexistence of non-democratic system and high-quality governance may seem puzzling from the perspective of a standard institution-based account of governance, it is fully consistent with this study's view that measures like anti-corruption can serve as tools for states to improve governance quality and enable sustainable economic growth.

Caveats aside, findings from this study nonetheless underscore the role of corruption as a "grabbing hand" even in authoritarian regimes and developing countries. My analysis of the non-differential effect of Xi's campaign on different investors and the possible pre-campaign perfect price discrimination suggests that corruption is taxing even for those "privileged" investors and the anti-corruption effort is limited under authoritarianism.

This paper would be further strengthened by the following steps. First, the availability of the

data is seriously constrained by limited access to provincial level FDI data from different origins because some provincial statistical yearbooks do not report such data. Finding more data on FDI from different origins will permit more credible estimations. Second, the measures of anti-corruption effort could be improved. The investigated corruption cases of a province may be a function of both the anti-corruption effort and the original degree of corruption.<sup>26</sup> For example, a large number of corruption cases could reflect that the anti-corruption campaign is intensive such that more corruption cases are investigated or that there was originally a high level of corruption. More objective measures such as misused public funds used by [Stromseth et al. \(2017\)](#) and text analysis of keywords on anti-corruption in main newspapers would produce more unbiased results. Third, the explanations of the non-differential effect are preliminary. Future study should look for data to examine the implementation of OECD ABC and data from different industries where data could be more sufficient to discover the mechanisms of the non-differential effect.

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<sup>26</sup> [Wang, Yao and Qu \(2018\)](#) discuss the possible functional form of anti-corruption effort parameterized by corruption cases and corruption degree.

# Appendix

## A Model and Proof

### Proof for Proposition 1

*Proof.* Given these strategies, these rules suggest that investors' equilibrium beliefs are  $Pr(S|H) = 1, Pr(\neg S|L) = 1$ . Since  $\pi_S > r > \pi_{\neg S}$ , investors' strategy – increase only facing the high-profile anti-corruption campaign – is the best response. Check that the state's strategy is the best response.  $U_S(H) = \alpha\pi_i - v_i, U_S(L) = 0, i \in \{S, \neg S\}$ . Since  $\frac{v_{\neg S}}{\pi_{\neg S}} \geq \alpha \geq \frac{v_S}{\pi_S}$ , the state has the best response given the condition.  $\square$

### Proof for Proposition 2

*Proof.* First consider the state. For  $S$ , it gets  $\alpha\pi_S - v_S$  in the equilibrium under condition (1),  $\alpha\beta\pi_S - v_S$  in the equilibrium under condition (2), and 0 by defection, so  $H$  is  $S$ 's best response if  $\alpha\beta\pi_S \geq v_S$ . For  $\neg S$ , it gets  $\alpha\pi_{\neg S} - v_{\neg S}$  in the equilibrium under condition (1),  $\alpha\beta\pi_{\neg S} - v_{\neg S}$  in the equilibrium under condition (2), and 0 by defection, so  $H$  is  $\neg S$ 's best response if  $\alpha\beta\pi_{\neg S} \geq v_{\neg S}$ .

Next, consider investors' strategies. For investors to choose  $I$  after observing  $H$

$$\begin{aligned} \text{Cozy : } Pr(S|H)\pi_S + Pr(\neg S|H)\pi_{\neg S} - r &\geq 0 \Rightarrow p_C \geq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}} \\ \text{OECD : } Pr(S|H)\pi_S + Pr(\neg S|H)(\pi_{\neg S} - s) - r &\geq 0 \Rightarrow p_O \geq \frac{s + r - \pi_{\neg S}}{s + \pi_S - \pi_{\neg S}} \end{aligned}$$

Due to the possible sanction  $s$ , cozy circle investors and OECD circle investors have different critical value of  $p$  to be indifferent between  $I$  and  $K$ . Since  $\pi_S > r$ , it is obvious that  $\frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}} > \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ . When  $p \geq \frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}}$ , both circle investors have the same strategy to choose  $I$ , which is the condition (1). When  $\frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}} \geq p \geq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ , cozy circle investors still choose  $I$ , while OECD circle investors will deviate to  $K$  due to the  $Pr(S|H)$  which is smaller than their critical value  $p_O$ .

One thing worth noting here is that, in condition (2), investors have different equilibrium strategies given their different types. However, the state still chooses  $H$ . The condition  $\alpha\beta\pi_i > v_i, i \in \{S, \neg S\}$  makes state's equilibrium strategy possible because even when OECD circle investors who take  $1-\beta$  proportion of the investor population deviate to  $K$ , choosing  $H$  is still a dominant strategy for the state.

Then for investors to choose  $K$  after observing  $L$ , suppose  $Pr(S|L) = \gamma$

$$Pr(S|L)\pi_S + Pr(\neg S|L)(\pi_{\neg S} - \mathbb{1}_{\theta_I=O}S) - r \leq 0$$

$$\text{Cozy} : \gamma_C \leq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}}, \text{OECD} : \gamma_O \leq \frac{s + r - \pi_{\neg S}}{s + \pi_S - \pi_{\neg S}}$$

When  $Pr(S|L) = \gamma \leq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}}$ , both circle investors will choose  $K$ .  $\square$

**Proposition 3** Suppose OECD ABC is effective,  $\alpha\pi_S \leq v_S$ ,  $\alpha\pi_{\neg S} \leq v_{\neg S}$ ,  $s_S(S) = s_S(\neg S) = L$ ,  $Pr(S) = p$ ,  $Pr(S|H) = \gamma$ , we have the following two conditions:

(1) If  $Pr(S|H) \geq \frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}}$  and  $Pr(S|L) \leq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ , then  $s_I(H) = I$ ,  $s_I(L) = K$  is a Perfect Bayesian Equilibrium for both circle investors.

(2) If  $\frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}} \geq Pr(S|H) \geq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$  and  $Pr(S|L) \leq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ , there are following two conditions for a Perfect Bayesian Equilibrium:  $s_I(H) = I$ ,  $s_I(L) = K$  for cozy circle investors and  $s_I(H) = s_I(L) = K$  for the OECD circle investors.

*Proof.* The proof is similar to that of Proposition 2. First, consider the state. For  $S$ , it gets  $\alpha\pi_S - v_S$  in the equilibrium under condition (1),  $\alpha\beta\pi_S - v_S$  in the equilibrium under condition (2), and 0 by defection, so  $L$  is  $S$ 's best response if  $\alpha\pi_S \leq v_S$ . For  $\neg S$ , it gets  $\alpha\pi_{\neg S} - v_{\neg S}$  in the equilibrium under condition (1),  $\alpha\beta\pi_{\neg S} - v_{\neg S}$  in the equilibrium under condition (2), and 0 by defection, so  $H$  is  $\neg S$ 's best response if  $\alpha\pi_{\neg S} \leq v_{\neg S}$ .

Then consider the investors. For investors to choose  $K$  after observing  $L$ :

$$Pr(S|L)\pi_S + Pr(\neg S|L)(\pi_{\neg S} - \mathbb{1}_{\theta_I=O}S) - r \leq 0$$

$$\text{Cozy} : p_C \leq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}}, \text{OECD} : p_O \leq \frac{s + r - \pi_{\neg S}}{s + \pi_S - \pi_{\neg S}}$$

Obviously, when  $Pr(S|L) = p \leq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}}$ , both circle investors will play the equilibrium strategy: choosing  $K$  after observing  $L$ .

For investors to choose  $I$  after observing  $H$ :

$$Pr(S|H)\pi_S + Pr(\neg S|H)(\pi_{\neg S} - \mathbb{1}_{\theta_I=O}S) - r \geq 0$$

$$\text{Cozy} : \gamma_C \geq \frac{r - \pi_{\neg S}}{\pi_S - \pi_{\neg S}}, \text{OECD} : \gamma_O \geq \frac{s + r - \pi_{\neg S}}{s + \pi_S - \pi_{\neg S}}$$

When  $Pr(S|H) = \gamma \geq \frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}}$ , both circle investors will choose  $I$  after observing  $H$ , which is the equilibrium strategy, as shown in condition (1). However, when  $\frac{s+r-\pi_{\neg S}}{s+\pi_S-\pi_{\neg S}} \geq Pr(S|H) \geq \frac{r-\pi_{\neg S}}{\pi_S-\pi_{\neg S}}$ , two

circle investors have different PBE. Cozy circle investors will have the same equilibrium strategy as in condition (1), while OECD circle investors will deviate to  $s_I(H) = s_I(L) = K$ .  $\square$

## B Tables and Figures

### B.1 Summary Statistics

TABLE B1: SUMMARY STATISTICS

Variables	N	Mean	Std. Dev.	Min	Max
<i>Foreign Direct Investment (log)</i>	1,883	9.668	2.231	0.693	16.168
<i>Corruption Cases</i>	2,052	1,347.345	699.730	154	3400
<i>Public Official</i>	2,052	58.968	27.520	13.570	142.125
<i>Population</i>	2,052	5323.960	2636.206	1176	11521
<i>Regional GDP per capita (log)</i>	2,052	10.787	0.518	9.581	12.009
<i>Average Education</i>	2,052	9.275	0.959	7.440	12.681
<i>Infrastructure</i>	2,052	0.031	0.019	0.011	0.099
<i>Average Wage</i>	2,052	56,487.150	25,273.900	20,5970	166,803
<i>Population Density</i>	2,052	603.499	616.553	82.874	2,946.772
<i>Secondary</i>	2,052	0.452	0.091	0.162	0.615
<i>Tertiary</i>	2,052	0.473	0.119	0.286	0.835
<i>Government Size</i>	2,052	0.189	0.048	0.087	0.368

I collect all the data manually. *Foreign Direct Investment (log)* is collected from China Statistically Yearbook (中国统计年鉴) and provincial statistical yearbook (各省统计年鉴). *Corruption Cases* are collected from Procuratorial Yearbook of China (中国检察年鉴). *Average Wage* is collected from China Population & Employment Statistics Yearbook (中国人口和就业统计年鉴).

## B.2 Overall Boosting Effect

TABLE B2: THE EFFECT OF ANTI-CORRUPTION EFFORT ON FDI IN CHINA (2008 - 2019)

	(1)	(2)	(3)
	FDI	FDI	FDI
<i>Anticorruption Effort</i>	0.0009** (0.0004)	0.0007** (0.0003)	0.0005* (0.0002)
<i>N</i>	1882	1882	1848
<i>Adjusted R<sup>2</sup></i>	0.742	0.759	0.776
<i>P-O Fixed Effect</i>	✓	✓	✓
<i>Year Fixed Effect</i>	✓	✓	✓
<i>Control Variables</i>		✓	✓
<i>Number of Clusters</i>	19	19	19

*Note:* This table reports the results without bootstrap clustered standard error of hypothesis 1. All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Standard errors clustered at the province level are reported in parentheses. *P-O Fixed Effect* = *Province-Origin Fixed Effect*

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### B.3 Stronger Boosting Effect

TABLE B3: DIFFERENCES IN BOOSTING EFFECT BEFORE AND AFTER 2012

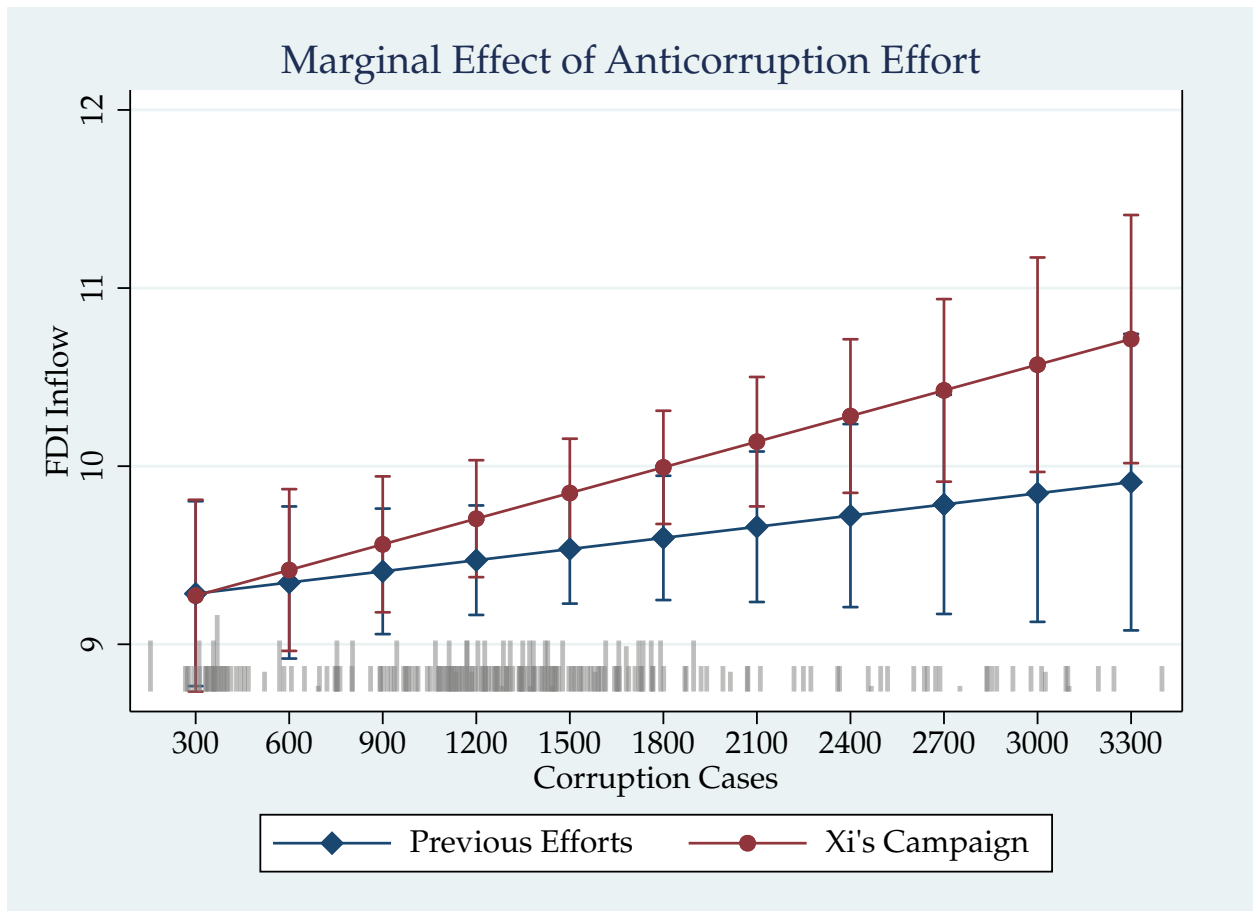
	(1)	(2)	(3)
	FDI	FDI	FDI
$2012 \times Anti\ after$	0.0003 (0.0002)	0.0005*** (0.0002)	0.0004** (0.0001)
$N$	1882	1882	1848
$Adjusted\ R^2$	0.743	0.762	0.777
$P-O\ Fixed\ Effect$	✓	✓	✓
$Year\ Fixed\ Effect$	✓	✓	✓
$Control\ Variables$		✓	✓
$Number\ of\ Clusters$	19	19	19

*Note:* This table reports the results without bootstrap clustered standard error of hypothesis 2. All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Standard errors clustered at the province level are reported in parentheses.  $P-O\ Fixed\ Effect = Province-Origin\ Fixed\ Effect$

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



FIGURE B1: STRONGER BOOSTING EFFECT OF XI'S CAMPAIGN



*Note:* This figure plots the marginal effect of previous anti-corruption efforts and Xi's campaign on FDI inflow. The diamond dots denote previous anti-corruption efforts while the circle dots denote Xi's campaign. The bars denote 95% confidence interval.

## B.4 Robustness Tests

TABLE B4: WILD BOOTSTRAP OF HYPOTHESIS 1

	(1)	(2)	(3)
	FDI	FDI	FDI
	Wild Bootstrap 95% CI	Wild Bootstrap 95% CI	Wild Bootstrap 95% CI
<i>Anticorruption Effort</i>	0.0009** [0.0001, 0.0017]	0.0007** [-0.0000, 0.0013]	0.0005* [-0.0001, 0.0010]
<i>N</i>	1882	1882	1848
<i>Adjusted R<sup>2</sup></i>	0.742	0.759	0.776
<i>P-O Fixed Effect</i>	✓	✓	✓
<i>Year Fixed Effect</i>	✓	✓	✓
<i>Control Variables</i>		✓	✓
<i>Number of Clusters</i>	19	19	19

*Note:* This table reports the results using wild bootstrap clustered standard error following [Cameron, Gelbach and Miller \(2008\)](#) and [Roodman et al. \(2019\)](#) (implemented by `wildbootstrap` in Stata). All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Wild Bootstrap 95% confidence intervals are reported under the estimates. *P-O Fixed Effect* = *Province-Origin Fixed Effect*

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE B5: WILD BOOTSTRAP OF HYPOTHESIS 2

	(1)	(2)	(3)
	FDI	FDI	FDI
	Wild Bootstrap 95% CI	Wild Bootstrap 95% CI	Wild Bootstrap 95% CI
<i>2012 × Anti after</i>	0.0003 [-0.0002, 0.0005]	0.0005** [0.0001, 0.0010]	0.0004** [0.0000, 0.0008]
<i>N</i>	1882	1882	1848
<i>Adjusted R<sup>2</sup></i>	0.743	0.762	0.777
<i>P-O Fixed Effect</i>	✓	✓	✓
<i>Year Fixed Effect</i>	✓	✓	✓
<i>Control Variables</i>		✓	✓
<i>Number of Clusters</i>	19	19	19

*Note:* This table reports the results using wild bootstrap clustered standard error following [Cameron, Gelbach and Miller \(2008\)](#) and [Roodman et al. \(2019\)](#) (implemented by `wildbootstrap` in Stata). All three columns control both province-origin and year fixed effect. Column (2) includes control variables except lagged FDI, column (3) includes all the control variables. Wild Bootstrap 95% confidence intervals are reported under the estimates. *P-O Fixed Effect* = *Province-Origin Fixed Effect*

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE B6: ROBUSTNESS TEST AND PLACEBO TEST

	Robustness Test			Placebo Test		
	(1)	(2)	(3)	(4)	(5)	(6)
	FDI	FDI	FDI	FDI	FDI	FDI
<i>Anti Effort(pop)</i>	0.0260*** (0.0070)					
<i>Anti Effort (pub)</i>		0.0361*** (0.0073)				
$2012 \times \text{Anti Effort}(pop)$			0.0158** (0.0069)			
$2012 \times \text{Anti Effort}(pub)$				0.0024 (0.0077)		
$2012 \times \text{Anti Effort}$					0.0004*** (0.0001)	0.0004*** (0.0001)
$2014 \times \text{Anti Effort}$						
<i>N</i>	1848	1848	1848	1848	1436	1394
<i>R</i> <sup>2</sup>	0.798	0.799	0.797	0.796	0.805	0.707
<i>Fixed Effects</i>	✓	✓	✓	✓	✓	✓
<i>Control Variables</i>	✓	✓	✓	✓	✓	✓

*Note:* This table reports the robustness tests and placebo test of hypothesis 1 and 2. Column (1) and (3) uses corruption cases per million population as an alternative measure of anti-corruption effort. Column (2) and (4) uses corruption cases per 10,000 public officials as an alternative measure. Column (5) and (6) change the sample: column (5) drops provinces that have connection with Xi Jinping and column (6) drops Hong Kong and the United States. Column (7) exhibits the placebo test, in which the implementation of anti-corruption campaign is changed into 2011. All columns include a set of control variables and control both province-origin and year fixed effect. Province-origin clustered standard errors are reported in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

TABLE B7: PARALLEL TREND TEST

	(1)	(2)	(3)	(4)
	<i>Hypothesis 2</i>		<i>Hypothesis 3</i>	
	FDI	FDI	FDI	FDI
<i>Five Years Before</i>	-0.0001 (0.0002)	-0.0002 (0.0002)	0.2454 (0.2722)	0.2354 (0.2550)
<i>Four Years Before</i>	-0.0000 (0.0002)	-0.0001 (0.0002)	0.2790 (0.2708)	0.2841 (0.2535)
<i>Three Years Before</i>	-0.0002 (0.0002)	-0.0003 (0.0002)	0.0813 (0.2717)	0.0982 (0.2545)
<i>Two Years Before</i>	-0.0001 (0.0002)	-0.0001 (0.0002)	0.0468 (0.2722)	0.0628 (0.2549)
<i>N</i>	1882	1882	1882	1882
<i>R<sup>2</sup></i>	0.769	0.795	0.762	0.802
<i>Province-origin and Year FE</i>	✓	✓	✓	✓
<i>Control Variables × Year FE</i>		✓		✓

*Note:* This table reports the coefficient of the interaction term in Equation 4 and 5 to test the parallel trend assumption. Column (1) and (2) show the results of hypothesis 2, column (3) and (4) show the results of hypothesis 3. One year before (2012) is set as the baseline group to aid the analysis. Province-origin clustered standard errors are reported in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

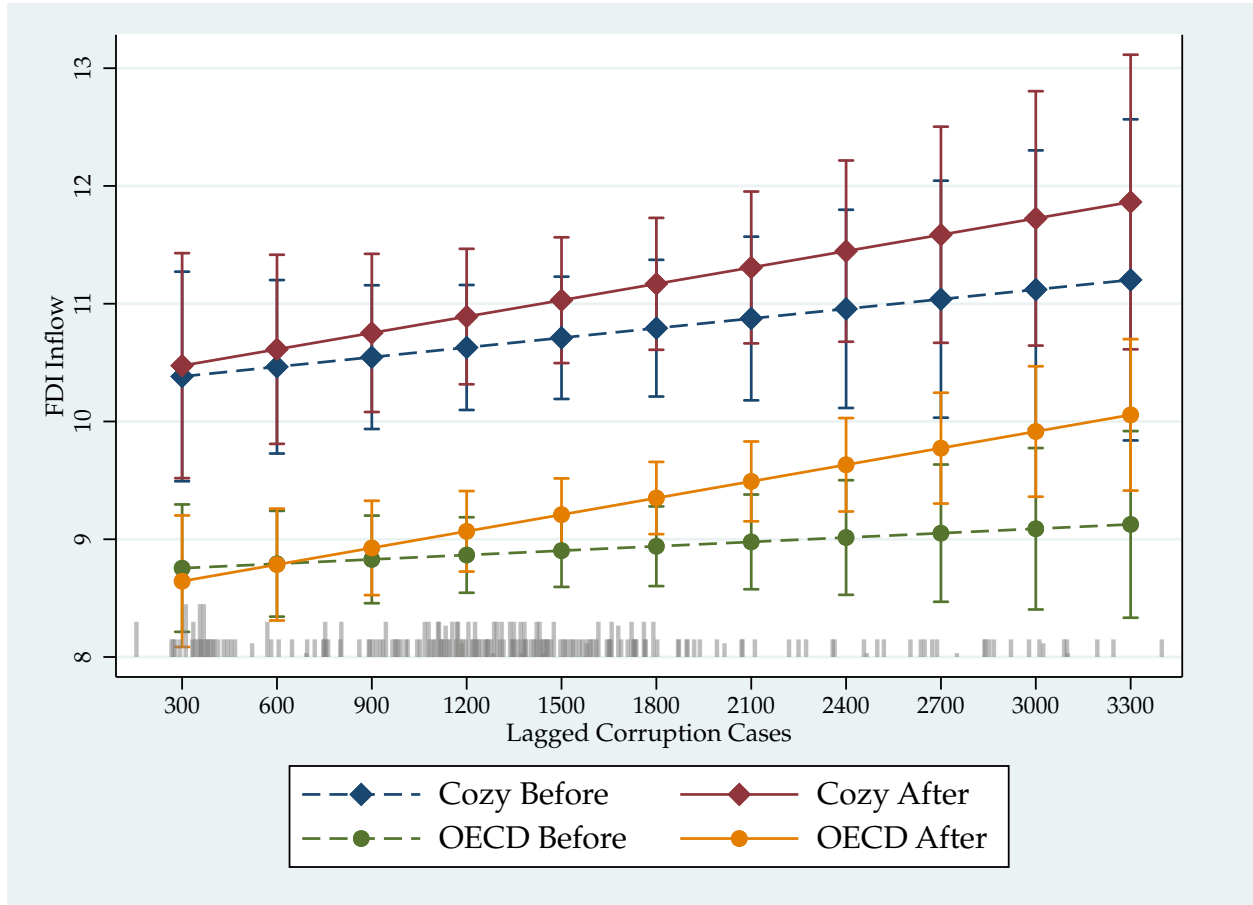
TABLE B8: NON-DIFFERENTIAL EFFECT

	(1)	(2)	(3)	(4)
	FDI	FDI	FDI	FDI
<i>OECD</i> $\times$ <i>Anticorruption Effort</i>	0.0002 (0.0003)	0.0001 (0.0003)	0.0003 (0.0003)	
<i>After2012</i> $\times$ <i>OECD</i>				0.0432 (0.1324)
<i>N</i>	1882	1848	1394	1394
<i>R</i> <sup>2</sup>	0.766	0.798	0.705	0.705
<i>Province-Origin and Year FE</i>	✓	✓	✓	✓
<i>Control Variables</i>		✓	✓	✓

*Note:* This table reports the results of alternative measures of the non-differential effect. Column (1) - (3) interact the dummy *OECD* with *Anticorruption Effort*. Column (3) drops Hong Kong and the United States. Column (4) re-runs Equation 3 without Hong Kong and the United States. All columns control province-origin and year fixed effect. Column (2) - (4) include a set of control variables. Province-origin clustered standard errors are reported in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

FIGURE B2: NON-DIFFERENTIAL EFFECT



Note: This figure plots the marginal effect of Xi's campaign on FDI inflow from OECD countries and cozy circle countries before and after 2013. The diamond dots denote cozy circle countries while the circle dots denote OECD countries. The dashed lines denote the FDI inflow change before 2013 while the solid lines denote the FDI inflow change after 2013. The bars denote 95% confidence interval.

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