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The Political Economy of China's Outward Direct Investments

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy

in

Political Science

by

Weiyi Shi

Committee in charge:

Professor Miles Kahler, Chair
Professor Susan Shirk, Co-Chair
Professor Lawrence Broz
Professor Edmund Malesky
Professor Megumi Naoi

2015

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The Dissertation of Weiyi Shi is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

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University of California, San Diego

2015

DEDICATION

For Mark.

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ABSTRACT OF THE DISSERTATION

The Political Economy of China's Outward Direct Investments

by

Weiye Shi

Doctor of Philosophy in Political Science

University of California, San Diego, 2015

Professor Miles Kahler, Chair
Professor Susan Shirk, Co-Chair

This dissertation elucidates the domestic politics of China's outward direct investments and its international implications. A current puzzle in CPE/IPE research is whether international investors from autocracies, particularly state-owned enterprises (SOEs), are profit-maximizing firms or agents of the state. Using formal analysis and two sets of original firm-level data on Chinese investments, I demonstrate that the behaviors of China's SOEs reflect both state preferences and firms' profit incentives and

that the interaction of the two can lead to perverse outcomes unintended by the state: China's political elites depend on SOEs to carry out certain state objectives (e.g. energy security) and devise preferential policies (e.g. subsidies, insurance, bailouts) that enable firms to accomplish these objectives. SOEs, however, take advantage of these policy perquisites to seek rents. Knowing that the state will bail them out when investments fail, they take excessive risks when choosing host countries to earn high returns, ultimately passing on the cost of failed investments to the disenfranchised public. I apply this core insight to evaluate three aspects of China's approach to outbound investments: investment decisions by Chinese firms; the effect of Chinese investment on host country development and governance; and China's foreign policy toward economies that are the sites of its foreign investment.

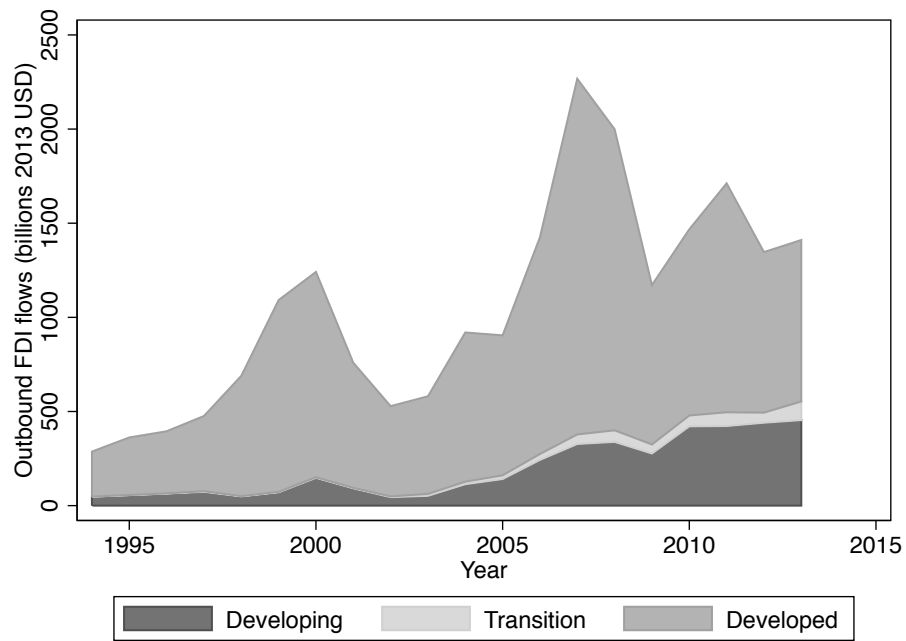
Chapter 1

The Changing Landscape of FDI

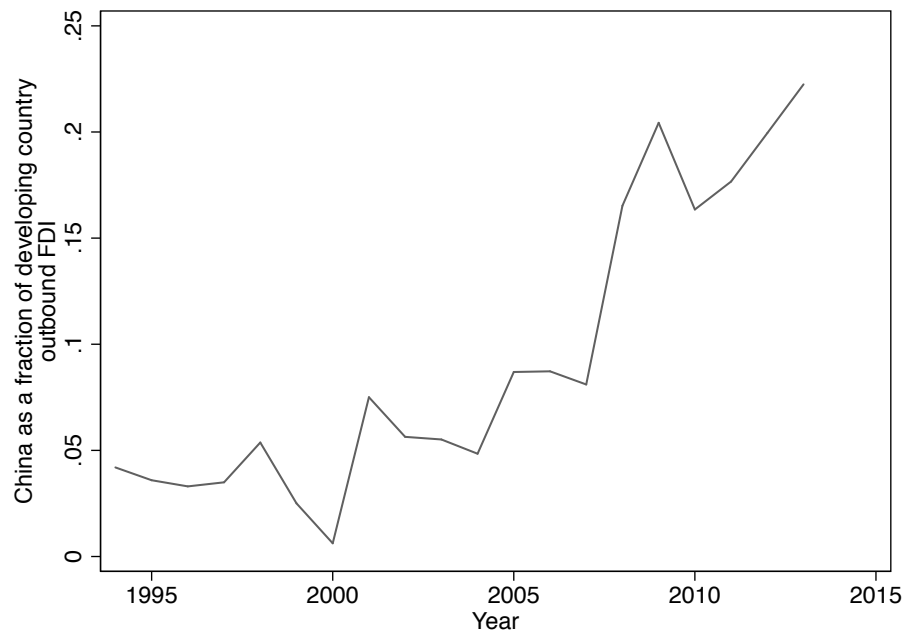
1.1 The Puzzle

Foreign direct investments (FDI) from emerging markets now play an increasingly important role. According to UNCTAD's *2014 World Investment Report*, developing and transition economies together invested \$553 billion, or 39 percent of global FDI outflows, compared with only 12 percent at the beginning of the 2000s. Among all emerging economies, China has by far the highest investment outflow: it is now the world's third largest provider of international capital after only the United States and Japan, and accounts for more than 20% of total investments originating from developing economies (Figure 1.1). The second emerging economy ranked by FDI outflow, Russia, accounts for 11%. China's outward FDI exceeds that of all other BRIC countries combined.

The ascendance of outward FDI from emerging economies, and from China in particular, is a recent phenomenon. Only two decades ago China was only a major recipient of FDI and a popular destination as western multinational corporations (MNCs) sought to expand. For most of global economic history, FDI and MNCs were economic institutions associated with the European and North American economies. The earliest form of transnational corporations (e.g. the British East India Company, the Swedish Africa Company) can be traced to colonizing ventures from Western Europe, notably England and Holland in the 16th century (Greer and Singh 2000). For much of



(a) Outbound FDI Flows by Source Country Type



(b) China as a Fraction of Outbound FDI from Developing Countries

Figure 1.1: Outbound FDI Flows

the 20th century, MNC was synonymous with American corporate powerhouses such as Ford, Kodak, and Chevron. The 1980s saw the rapid development of Japanese MNCs. Like China, Japan's ambitious acquisition of global assets aroused much anxiety in the west at the time, but this was ultimately assuaged by Japan's descent into the lost decade.

It is in this historical context that scholars, policymakers, and the public are now trying to place China's rapidly growing outward investments, but two interrelated features associated with China's outward FDI makes this placement difficult. First, China is authoritarian with a highly capable state; the majority of modern MNCs have been based in democracies. We have some understanding of how MNCs and political elites relate in a democracy – corporations like Walmart and Chevron form powerful policy lobby to advance their global interests – but how an autocratic state supports, controls, and interacts with its transnational corporations is much less known. It is all too easy to take for granted that autocratic leaders have some sort of towering command over economic actors. Second, a majority of Chinese outward investments are made by state-owned enterprises (SOEs). In 2006, 81% of China's FDI came from SOEs, and among those investments 82% were made by central SOEs (OECD, 2009). In spite of the rapid rise of Chinese private investments in recent years, SOEs still accounted for 60% of total Chinese outbound FDI in 2012. This percentage is much higher than the global average; where SOEs account for 11 per cent of global FDI flows (UNCTAD 2014). The entire literature on FDI, however, is based on studying private firms from developed democracies. How SOEs behave as MNCs has hardly been theorized, and is even less well understood when the SOEs are from autocracies.

This lack of understanding fuels anxiety and suspicion: With state support, will China's increasingly powerful MNCs undermine the current liberal market order and outcompete western corporations? Will China's conglomerates, acting under central command, become the modern day East India Company – neo-imperialists that not only extract materials and resources but also dominate the internal politics of their “colonies”? The press is filled with alarming titles and headlines on China's rapidly growing overseas investments: *China Buys Up the World* (cover of the Economist, November 2010), *The Chinese Are Coming* (BBC documentary series, 2011), *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World* (Jaques, 2009), *China's Silent Army: The Pioneers, Traders, Fixers and Workers Who Are Remaking the World in Beijing's Image* (Araújo and Cardenal, 2013), *Beijing Consensus: How China's Authoritarian Model Will Dominate the Twenty-First Century* (Halper, 2010), *Eclipse: Living in the Shadow of China's Economic Dominance* (Subramaniam, 2011) and *China, Inc.: How the Rise of the Next Superpower Challenges America and the World* (Fishman, 2005). The anxiety is perhaps best captured by Heriberto Araújo and Juan Pablo Cardenal's commentary in the *New York Times*:

By buying companies, exploiting natural resources, building infrastructure and giving loans all over the world, China is pursuing a soft but unstoppable form of economic domination. Beijing's essentially unlimited financial resources allow the country to be a game-changing force in both the developed and developing world, one that threatens to obliterate the competitive edge of Western firms, kill jobs in Europe and America and blunt criticism of human rights abuses in China.¹

¹ *The New York Times*, “China's Economic Empire.” June 1, 2013.

Impressions of the nature of China's outward investment vary widely. On one hand, authoritarianism and the prevalence of state ownership lead many to perceive Chinese MNCs as agents of the state and Chinese outward investment as embodying China's grand strategy and economic statecraft. Along these lines, the Chinese government has explicitly pushed for outgoing FDI under the overarching strategy known as *Go Out* since the early 2000s. More recently, Xi Jinping's *One Belt and One Road* economic framework, designed to enhance the country's energy security and connections to Central Asia, further evidence the extensive involvement of state planning in China's outward FDI. In public discourse the term "China Inc.," which suggests that Chinese government agencies are a monolithic body with a coherent strategy and that firms would stand in line with the government and follow its directives, has been used by countless scholars and analysts (Chen, 2008). Ed Zhang, senior editor at China Daily, surmises about the political nature of Chinese outward FDI: "For more than half a century, China has tended to see its outbound investment not as a pure economic activity but as a mixture blended with political significance, a gesture of friendship or humanitarian aid, to countries that were ignored by the traditional major powers of the world."² McNally (2012) goes so far as to coin the notion of Sino-capitalism, which "assigns the Chinese state a leading role in fostering and guiding capitalist accumulation" and "espouses less trust in free markets and more trust in unitary state rule."

On the other hand, some see Chinese MNCs as corporations operating more or less autonomously from their home state. For the last thirty-five years, China has

² *China Daily* (Europe), "Dark Side of China's Overseas Investment." January 30, 2015.

transitioned from a planned economy to a socialist market economy. State enterprise reform aimed to improve efficiency and gave SOEs more commercial autonomy; all centrally administered SOEs are at least partially listed on stock exchanges. Lardy (2014) argues that China is on track to becoming a fully marketized economy, that there is no evidence state-owned firms are returning to prominence, and that the impending dominance of state capitalism is exaggerated. Anecdotes presented by a number of policy reports confirm that Chinese MNCs' investment decisions are led by firms instead of the government.³ Even among China's national oil companies, there is evidence that they follow primarily commercial calculus when trading in offshore oil and acquiring overseas assets (Liou 2009, Jiang and Sinton 2011). In this light Chinese MNCs, like their western counterparts, are profit-maximizing firms looking for commercial opportunities overseas.

The central puzzle of this dissertation is thus the following: Are the expansion of China's outward investment and MNCs best understood as state-led or market-driven? And what does the mechanism driving Chinese investment imply for the behavior of Chinese firms, their impact on host economies, and China's foreign policy toward the sites of investment?

1.2 The Core Argument

I argue in this dissertation that neither the state-centric nor the market-centric views of Chinese outward investment are fully accurate. I show that MNCs from an autocracy vary in terms of their ties to the home state; the behaviors of SOEs reflect

³ See, for example, Cornish (2012), who describes Chinese SOEs as "profit-driven to their core."

both state interventions and firms' profit incentives. I show how the interaction of the two forces can lead to perverse outcomes unintended by the state. I develop a general theory for how the home state influences MNCs' foreign investments through policy manipulations and test my theory with original firm-level data on Chinese outbound FDI. Specifically, I build on two workhorse models in international political economy (Melitz 2003; Grossman and Helpman 1994) to explain the interactions of firms and home government. Political elites depend on SOEs (and other firms with political ties) to carry out certain state objectives (e.g. energy security) and devise preferential policies (e.g. subsidies, insurance, bailouts) that enable firms to accomplish these objectives. However, firms can also take advantage of the policies for their own benefit and seek rents. I refer to this phenomenon as rent capture and show that, counter to intuition, rent capture can happen more readily in an autocracy due to the lack of public accountability: SOEs can count on being bailed out by elites when investments go poorly, ultimately passing on the losses to the disenfranchised public. This implicit insurance leads to moral hazard, encouraging firms to take excessive risks when choosing host countries in a gamble for higher than normal returns (i.e. rents). Contrary to prevalent impressions, SOEs in an autocracy are at best imperfect agents of the state.

The two predominant perspectives on Chinese FDI described earlier each only captures one side of this coin. Corporations can concurrently fulfill state objectives and maintain commercial autonomy and incentives. It is precisely this dual role that allows firms to leverage policy vis-a-vis the political elites to reap rents (Figure 1.2 below). This duality makes the governance of these firms difficult, especially in a stability-focused and information-scarce autocracy. As I will demonstrate in Chapter 2, rent

capture is unavoidable in the sense that it is an equilibrium outcome. In other words, political elites give SOEs policy privileges knowing that SOEs would take advantage of the policies to capture rents. SOEs, knowing that elites would impart these privileges, do take advantage of them to capture rents.

Everything else equal, the more the political elites perceive themselves to be beholden to firms to accomplish certain state objectives, the more likely rent capture is to occur. The less the political elites are able to monitor and discipline the behavior of firms, the more likely rent capture is to occur. The more easily the political elites can pass on the costs of bailout or other forms of preferential policies to taxpayers, the more likely rent capture is to occur. In an autocracy like China, elites perceive economic growth to be fundamental to their political survival. As such, elites are, or at least perceive themselves to be, highly dependent on SOEs to deliver strategic resources and ensure employment. In the absence of third parties, elites lack effective means to monitor and discipline these firms. Meanwhile, passing on the loss of Chinese MNCs to taxpayers is easy when the state also controls the financial system and taxpayers are disenfranchised. Under these circumstances rent capture is all too ready to occur.

I apply this theory to evaluate three central and interrelated features of China's approach to outbound investments: the behavior of Chinese investors, the effect of Chinese investment on host countries and their socioeconomic development, and China's foreign policy toward economies that are the sites of its growing foreign investment.

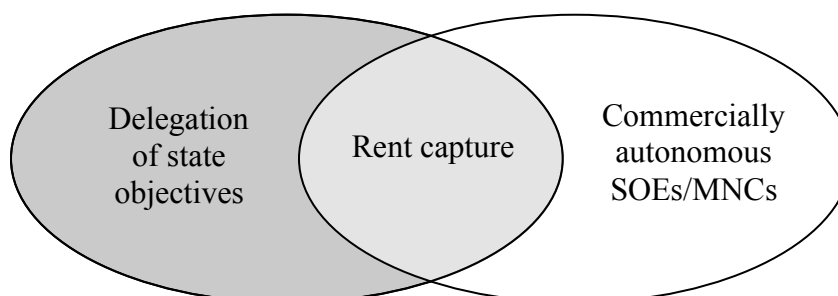


Figure 1.2: State Objectives and Rent Capture

In terms of investor behavior, I produce two key empirical findings that are consistent with my theoretical expectation. Analyzing data from an original firm-level survey of 1,056 Chinese companies and 21,054 FDI project records compiled from governmental registries, I find: (1) While standard economic models predict that the most productive firms invest overseas (Helpman, Melitz, and Yeaple 2004), Chinese firms' decisions are not driven only by productivity but instead are shaped by elite preferences and the accompanying policy distortions. Controlling for productivity, Chinese SOEs in the natural resource sector are more likely to invest overseas than private companies in the natural resource sector. Chinese SOEs in the manufacturing sector, tasked with providing revenue and employment in China and armed with policy advantages on their home turf, are less likely to invest abroad than their private counterparts (Chapter 3). (2) Among Chinese firms that do invest overseas, SOEs are disproportionately invested in countries with higher political risks. This differential persists after controlling for various indicators of state intent including the sector of investment and China's bilateral political relations with the host country. I show that, compared to private Chinese firms, SOEs are both more risk tolerant (i.e. taking the

necessary risks to accomplish state objectives) and risk-seeking (i.e. to earn rents) when they invest overseas.

That Chinese SOEs are both risk-tolerant and risk-seeking has nuanced implications both for countries that receive Chinese investments and for China's foreign policy. In terms of the effect on host countries, a common perception is that Chinese investments perpetuate corrupt governance and prop up rogue states. I contend that Chinese SOEs' higher risk tolerance makes them a stabilizing force and potentially a more reliable source of growth in some of the world's most politically and economically fragile areas. Higher risk tolerance also reduces SOEs' incentives to engage with local governance and to influence policies in host countries. I illustrate this finding with additional survey evidence and case interviews collected from host countries including Zambia and Vietnam and compare business operations among Chinese investors and western MNCs in those countries (Chapter 5).

Finally, the combination of state intervention and market dynamics that drives Chinese FDI imparts novel implications on China's foreign policy. A substantial part of China's rapidly accumulating overseas assets is in natural resources. The protection of fixed investments across borders has historically been associated with annexation and colonialism (Frieden 1994). China's approach of subsidizing and insuring its MNCs, however, favors risk absorption over risk mitigation through political control of host sites. The moral hazard inherent in this approach, however, incentivizes Chinese firms to go to countries with higher political risks, cornering the Chinese government into a reactive position. Once we recognize these patterns in Chinese FDI, we see that both

current concerns about Chinese neo-imperialism, and future hegemony, are likely exaggerated and warrant more nuanced consideration.

1.3 Limited Scope

The following limits should be noted regarding the analysis in this dissertation. First, it is focused on foreign direct investments, not portfolio investments or trade. OECD defines FDI as “cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy.” The typical vehicles for FDI are what I will term multinational corporations (MNCs), also known as multinational enterprises (MNEs) and transnational corporations (TNCs) with only slight variations in definition.⁴ As opposed to portfolio investments, FDI is characterized by investors’ ability to control operations in foreign subsidiaries. As such, this is a dissertation principally about the behavior of Chinese firms and its implications. Second, I focus on firm-level investment decisions. I do not address how rents are allocated within a firm. By making riskier investments and getting bailed out, Chinese SOEs earn higher than normal returns (i.e. rents) compared to their private counterparts. However, rents may or may not register as profits on balance sheets or be used to reward shareholders.⁵ Rents may be funneled into

⁴ Sovereign wealth funds also make direct investments overseas. Assets under management of SWFs approach \$6.4 trillion and are invested worldwide (UNCTAD 2014). Compared to the size of their assets, however, the level of FDI by SWFs is still small, corresponding to less than 2 per cent of assets under management, and limited to a few major SWFs. In 2013, SWF FDI flows were worth \$6.7 billion with cumulative stock reaching \$130 billion.

⁵ Not registering profits does not imply that the firm is not maximizing returns. Amazon, for example, prized expansion over immediate profitability for years before rewarding its shareholders. As such, testing for risk-seeking provides an indirect way to establish rent-seeking, since the actual amount of rent accrued is difficult to observe.

executive pay and employee wages, channeled to subsidiaries, reinvested in more assets, or even pocketed personally through corrupt practices. How these choices are made is a topic reserved for further research. The key observation I make in this dissertation is that SOEs seek rents, regardless of how they are eventually allocated. Third, this dissertation dedicates relatively little discussion to rent sharing through political connection. Politically connected private firms also receive preferential financing; some may do so at even higher rates and obtain better terms than SOEs, but there is no explicit, institutionalized delegation of state agenda to private firms. The key point I illustrate is the perverse consequence of delegating state objectives to commercially autonomous firms in the absence of public oversight and accountability.

1.4 Place in Existing Literature

This dissertation seeks to elucidate the political economy of Chinese outward FDI while informing the broader literature and theory building on emerging multinational firms. In Appendix 1A I provide a detailed review of the current FDI literature in three topical areas (namely the determinants of FDI; the impact of FDI on growth, development, and governance; and the link between FDI and foreign policy). I then illustrate how the rise of emerging outward FDI presents challenges to prevailing theories and empirical observations and discuss how this dissertation addresses these challenges. Here for brevity I only outline the main points of the review. Until recently the FDI/IPE literature has focused almost exclusively on private firms hailing from developed, democratic economies, where firms are assumed to operate more or less

autonomously from the home state. To begin to fill this gap, in this dissertation I present a general theory on the interaction of the home state and MNCs in shaping international investments and model the delegation of state objectives to MNCs in an authoritarian context. The FDI literature has long noted the heterogeneity of FDI's impact on host countries. Scholars, however, have predominantly focused on variations in host country conditions as the source of this heterogeneity. This dissertation shifts attention to the role of home country by investigating whether and why Chinese MNCs may exert a different impact from that of their western counterparts. International relations scholars have written extensively about the connection between power aspirations and overseas economic interests. I dissect the link between overseas economic interests and foreign policy, one of the most enduring questions in international relations (and traditionally studied in the context of democracies), and explore the mediating effect of disenfranchised taxpayers in an autocratic system.

In addition, this dissertation speaks to scholarship on state-owned enterprises in the context of Chinese/comparative political economy. My finding that Chinese SOEs seek rents globally departs from two prevalent views about the state economic sector in China: The first view is that China's SOEs carry policy burdens and do not maximize profits (Lin and Tan 1999); I show that SOEs do fulfill state objective to some extent, but they also leverage their policy roles to seek profits and rents. The current literature mostly faults China's SOEs for their inefficiency; I shift the focus to evaluate and explain the rent-seeking capacity of these enterprises. Second, it is often assumed that state ownership means state control of firm behavior. I model the strategic interaction

between political elites and firms and qualify simplistic views of the power of autocratic elites to direct economic actors.

1.5 Chapter Outline

This dissertation is organized as follows into five additional chapters:

Chapter 2 builds on two workhorse models in international political economy to explain the interactions of firms and home governments in the context of outbound FDI. First, I introduce policy distortions into Helpman, Melitz, and Yeaple (2004)'s seminal model, whose key insight is that productivity determines firms' propensity to invest abroad. I show that political elites can devise policies that alter the relative costs firms face when operating overseas vs. domestically, thereby changing the productivity threshold at which firms invest overseas. Political elites need not instruct firms what to do; by simply manipulating policy incentives, profit-maximizing firms can be made to behave in accordance with the preferences of the state. In the second model I problematize the preferences of the state and firms and show that these policy incentives can lead to perverse outcomes. The state's dependence on firms to carry out its agenda can lead to moral hazard and rent capture: SOEs, knowing that they will be bailed out when investments go badly, seek out riskier investments. I show in addition that the less accountable the political system is to the public (i.e. the more easily elites can pass on the costs of bailout to taxpayers), the more likely capture will occur, a departure from the image that autocratic leaders possess ironclad control over their agents. Following Grossman and Helpman (1994), I model elites' political survival not

only as a function of fulfilling certain state goals (e.g. energy security; economic growth) but also of rent extraction and sharing. This combination portrays more aptly the way policy perquisites are distributed in reality: SOEs are favored not just because they are agents for accomplishing certain state objectives, but also because they collude with elites to seek rents (in fact, the model predicts that the less public accountability, the more likely elites are to bail out firms for the purpose of rent-seeking). This aspect of the model complements the burgeoning political connections literature in comparative political economy, where firms obtain rents through their ties to political elites. Taken together, my theory suggests that, while elites can manipulate market mechanisms to accomplish their objectives, such manipulation can also lead to perverse consequences. The link between the state and firms, even for SOEs in an autocracy, is far from automatic or direct.

Chapter 3 tests the first model in Chapter 2 and examines how state preferences condition firms' decisions to invest overseas. Economic theory predicts that it is the most productive firms that invest abroad. The theory in Chapter 2, however, suggests that by selectively applying policy incentives elites can alter firm-level calculus and encourage certain firms to invest abroad along the lines of state objectives. Drawing from these theoretical insights, this chapter arrives at three hypotheses about Chinese FDI. 1) If Chinese FDI is driven by market mechanisms, we should observe that more productive firms invest overseas. If FDI is conditioned by state preferences and SOEs act as instruments of the state, we should observe differential patterns in different sectors of the economy, leading to the second and third hypotheses: 2) In the natural resource sector, where the state's preference is to seek supply overseas, SOEs should be

more likely than private firms to invest overseas, controlling for productivity; 3) In the manufacturing sector, where the governments' top priority is to sustain high levels of local production, SOEs should be less likely to invest overseas. I test these predictions using data from two under-explored sources, merging FDI projects compiled from the China Ministry of Commerce's registry with firm-level covariates from the economic census over a period of ten years. I confirm all three hypotheses, which suggests that both the productivity mechanism and state manipulation are at work. China's FDI is both dependent on market dynamics and fine-tuned by the visible hand to accomplish state goals.

Chapter 4 tests the second theoretical prediction in Chapter 2. While the general FDI literature assumes MNCs to be risk averse, Chapter 2 predicts that rent capture and moral hazard encourage Chinese SOEs to take excessive risks. To test for the presence of this "excess," I investigate two hypotheses: 1) If policy perks and implicit insurance have enabled Chinese SOEs to implement the state agenda (e.g. securing resources, furthering diplomatic goals) in some of the world's riskier areas, elite preferences should predict their choices of investment destinations; 2) If there is also rent capture (i.e. firms take advantage of implicit insurance to gamble for higher returns from risky assets), we would expect SOEs to disproportionately invest in riskier destinations even after controlling for the confounding effect of elite preferences. I test the hypotheses with two datasets on Chinese FDI: one includes 21,054 officially registered Chinese FDI projects (also used in Chapter 3); the other is an original firm-level survey of 1,056 companies that I completed in China in 2013. The findings from the two datasets corroborate one another and lend support to both hypotheses, suggesting that SOEs do

carry out certain state agendas, but they also hijack state policies in the process in pursuit of higher than normal returns. The results are robust to three different empirical models and various alternative specifications. Evidence from this chapter shows that in an autocracy like China even SOEs should not be regarded simply as agents of the state. They are ultimately driven by a profit calculus, can exhibit moral hazard, and generate perverse policy outcomes. That Chinese MNCs have a higher risk profile than their western counterparts presents a puzzle for the FDI literature; my findings offer a novel and nuanced explanation for this empirical regularity.

Chapter 5 incorporates additional survey research and case interviews conducted in Zambia and Vietnam to explore the implications of Chinese FDI on development in host countries. This chapter qualifies several myths commonly associated with Chinese investments: 1) Chinese investments do not benefit local development; 2) Chinese companies worsen bureaucratic corruption in host countries; 3) Chinese companies demonstrate poor practices of corporate social responsibility and possess low labor and environmental standards; 4) Chinese investment props up oppressive regimes. Perceived as agents of the state and plundering resources, SOEs are often regarded as the worst culprit. The core argument of this dissertation, however, provides more nuanced insights on these claims. Regarding the first myth, I find that Chinese SOEs' reduced sensitivity to risks in fact makes them a more reliable provider of growth and employment in host countries. Compared to western MNCs, they are better able to withstand economic cycles and policy volatility. Regarding the second myth, I present suggestive evidence from Vietnam that Chinese firms are more likely to bribe than MNCs from other countries, but that their effort does not get them ahead of other

international investors. Instead of perpetuating bureaucratic corruption broadly in a host country, Chinese investors appear to be the worst victims of their own propensity to bribe. Regarding the third myth, I present evidence from an original survey of the Zambian public that Chinese SOEs do not exhibit poorer labor and environmental practices than western MNCs. Anecdotal evidence, however, suggests that their deep pockets and quickness to agree to monetary settlements leave them vulnerable to opportunistic allegations by local groups. Regarding the fourth myth, I present suggestive evidence from Zambia and elsewhere that Chinese SOEs react passively to electoral and policy uncertainty. To the extent that China's economic engagement may have prolonged or shortened the electoral viability of the ruling party, the effect was channeled through effects on performance legitimacy instead of through direct participation in political lobbying and strategizing. This higher risk tolerance permits Chinese investors to operate in politically volatile areas while maintaining the diplomatic stance of non-interference.

Chapter 6 concludes by synthesizing and highlighting the key findings in this dissertation, discussing their implications for the policy debates that motivated this dissertation project in the beginning, and outlining the remaining questions and agenda for future research.

Appendix 1A The Rise of Emerging MNCs: Challenges to Existing Literature

In this appendix I review the current FDI literature in three topical areas, namely the determinants of FDI; the impact of FDI on growth, development, and governance; and the link between FDI and foreign policy. In each area I illustrate how the rise of emerging MNCs presents challenges to prevailing theories and empirical observations and discusses how this dissertation addresses these challenges.

Determinants of FDI

Mainstream theories on MNCs are largely derived from the experience of corporations in developed economies. These theories find their origin in the 1960s and 70s, coinciding with the rise of modern MNCs in the west. The international business literature approaches theory-building from the perspective of firm organization. The eclectic paradigm (or OLI framework), pioneered by Dunning (1977, 1981), theorizes that the firm becomes an MNC when advantages in ownership, location, and internalization are satisfied.⁶ FDI can be seeking resources, efficiency, or markets (Dunning, 1993). The international economics literature explains FDI in the context of

⁶ Ownership advantages exist when firms possess proprietary and intangible assets, such as advanced technology, marketing and advertising skills, managerial know-how, brand names, etc. These assets are of a public goods nature and inefficient for direct contracting or licensing in arm's length markets, thereby creating incentives for horizontal integration in which firms duplicate production in multiple geographic locations to exploit economies of scale inherent in these assets. Internalization advantages arise from firms' hierarchical control of their different value-added activities involving specific assets that are dedicated to a particular long-term economic relationship. These assets are vulnerable to partners' opportunistic behavior in transactional markets and thus firms have an incentive to claim hierarchical control. Nonetheless, to exploit ownership or internalization advantages, firms do not necessarily need a foreign presence. The third set of location advantages explains why firms want to become international. The locational attractions, such as rich natural resources, large consumer markets, low labor costs, or high tariff barriers, are specific to particular countries or regions. The interaction of the three sets of advantages, therefore, makes firms favor a presence in a foreign location.

trade. Vernon's (1966) Product Life Cycle Theory, Helpman's (1984) theory on vertical FDI, Helpman, Yeaple, and Melitz (2004) on horizontal FDI, and the Markusen et. al. (2001) Knowledge Capital Model (KCM) are all seminal works that model a firm making an endogenous choice in deciding to trade, establish overseas plants, or both.⁷ In these theories, whether the drivers of FDI are relative factor prices, returns-to-scale, heterogeneity in productivity, vertical integration, or regulatory arbitrage, a basic assumption is that firms are profit-maximizing, autonomous entities faced with a hard budget constraint. It remains unexplored to what extent these theories can explain FDI by state-owned enterprises and firms from autocracies, where the applicability of these assumptions becomes questionable. The role of home governments and their capacity for altering the decisions of MNCs is decidedly missing in current models of FDI.

Political scientists' contribution to the FDI and MNC literature has been largely centered around host countries. Much has been written on how political institutions in host countries shape investment inflow. Researchers identify political regime and democratization (Jensen 2003, 2008, Li and Resnick 2003, Pandya 2014, Moon 2015), electoral institutions and electoral cycles (Jensen, Findley, and Nielson 2015), executive constraint (Henisz 2000, Li 2009), federalism (Jensen and McGillivray 2005), judicial strength and rule of law (Biglaiser and Staats, 2010, 2012), regulatory quality (Daude and Stein 2007), and bilateral and international treaties and agreements (Elkins, Guzman, and Simmons 2006; Kerner and Lawrence 2013; Allee and Peinhardt 2010,

⁷ Horizontal FDI substitutes for trade, where the principal choice facing firms is whether to export or engage in direct investments. Vertical FDI on the other hand arises symbiotically with intra-industry and intra-firm trade. When the Heckscher-Ohlin model failed to account for observed patterns of trade in the 1960s, Vernon (1966) proposed "Product Life Cycle Theory," which argued that, as products mature, production moves away from the point of origin in search of lower factor costs.

Kenyon and Margalit 2014, Büthe and Milner 2008, 2014) as important factors in mediating incoming FDI. The heterogeneity among MNCs, however, has largely been overlooked. We know little about whether or how different MNCs respond to host country political conditions differently. The notable exception is a small literature on diaspora investors, which generally concludes that shorter institutional distance to the host country helps these investors mitigate political risks (Leblang 2010, Graham 2010, Gillespie et. al. 1999). The emergence of MNCs from developing economies now begs more attention be paid to additional sources of heterogeneity in terms of firm ownership and political institutions in *home* countries.

Recent scholarship has tried to reconcile traditional FDI theory with emerging-economy MNCs to varying degrees of success. Some studies find that Chinese OFDI has reached levels beyond that which China's level of development would predict (Rodriguez and Bustilo, 2011). In particular, Chinese investment appears to be less deterred by political risks in host countries compared to investment by traditional MNCs (Buckley et al., 2007; Kolstad and Wiig, 2012). Li and Liang (2012) attribute Chinese investors' lack of risk aversion to the protective effect of China's superior diplomatic relations with politically risky regimes. Others point to Chinese firms' advantages in developing applicable technology and products particularly suited for developing country markets (Zeng and Williamson 2007), reliance on personal relationships and ethnic networks, access to cheap funds and government support (Luo et al., 2010), capability to cope with weak institutions in the host environment (Cross et al. 2007; Buckley et al. 2008) and a desire to escape from home country institutional constraints such as weak intellectual property rights and rule of law (Child and

Rodrigues 2005; Rui and Yip 2008; Deng 2009; Beazer and Blake 2011). Rodriguez and Bustilo (2011) note that, in contrast to MNCs from developed countries whose advantages are firm-specific and internally generated, Chinese firms' advantages incorporate more environmental elements of the home country.

It remains under-theorized, however, how features of the Chinese political system interface with firms, particularly SOEs, to shape their investment decisions. We do not have a framework for understanding how SOEs operate in the international marketplace while bearing state objectives and responding to political command of leaders in their home country. This dissertation aims to fill the gap by explicitly modeling the interaction between political elites and firms in an authoritarian system. In addition to environmental factors identified by current scholarship that set Chinese investment apart from its western counterpart, I argue that the delegation of state objectives to commercially autonomous firms inherently and fundamentally alters firm incentives. This delegatory relationship shapes governmental policies to support firms' activities, which in turn shapes firms' propensity to internationalize and their decision-making with regard to risks (Chapters 2, 3, and 4). The nature of this interaction between firms and the home government has been largely overlooked by the current literature on the determinants of FDI.

Impact of FDI on the Host Country

The economics literature focuses on FDI's impact on various aspects of economic development such as growth (Borensztein et. al 1998, Hanson 2001),

employment (Zhao 1998, Lall 2004), inequality (Zhang and Zhang 2003, Choi 2006), and technology transfer (Saggi 2002). Much of this literature also finds that FDI's developmental impact is conditional on host country characteristics such as levels of development and governance quality (Alfaro et al., 2004; Reiter and Steensma, 2010).

Political scientists have examined the impact of FDI on political institutions and governance. This literature comes in three main categories: The first examines the link between FDI inflow and the stability and evolution of political regimes. Analyzing data on 127 countries during the period 1970-1996, Li and Reuveny (2003) find that trade openness and portfolio investment inflows erode the prospects for democracy, but FDI affects democracy positively. Bussman and Schneider (2007) observe that rising trade, FDI, and portfolio investments are all correlated with a heightened chance for civil war.

The second set of studies investigates the link between MNCs and bureaucratic corruption. Increased competition brought by MNCs drives down monopoly rents and bribe schedules; non-corrupt, western business practices can also diffuse to domestic businesses in emerging markets (Malesky, Gueorguiev, and Jensen, 2015). Further research however finds that FDI's impact on corruption is heterogeneous and conditional. Malesky, Gueorguiev, and Jensen (2015) find that MNCs are more likely to bribe local authorities in Vietnam when trying to enter a restrictive sector with high entry barriers. Pinto and Zhu (2009) report that the effects of FDI on corruption are conditional on the host country's underlying economic and political climate.⁸

⁸ FDI inflows are likely to be associated with lower corruption. In non-democratic countries with less diversified economies, a rise in FDI inflows is more likely to be associated with higher corruption levels.

The third body of literature debates whether FDI contributes to a “race to the bottom” in labor and environmental standards globally. Here trade, rather than FDI, tends to be found guilty of lowering standards. Spar (1998) notes that American MNCs, by accepting responsibility for the labor practices and human rights abuses of their foreign subcontractors, can in fact become agents of positive change. Examining labor rights in ninety developing nations, for 1986-2002, Mosley and Uno (2007) also find that FDI inflows are positively and significantly related to the rights of workers but that trade competition generates downward pressure on collective labor rights.⁹

The rise of China’s outward FDI, however, challenges and complicates a number of general observations on the impact of FDI on host countries. While globalization is generally associated with positive prospects for democratization, China’s investments, loans, and aid have long been accused of sustaining oppressive rogue regimes such as Venezuela, Sudan, and Iran (US-China Economic and Security Review Commission, 2008, 2012). China’s MNCs are neither prohibited by their home government from investing in these nations nor appear to be deterred by the significant investment risks embedded in these destinations. Chinese firms have also been said to perpetuate or worsen corrupt business practices, bribing routinely to obtain contracts and strike deals (Cardenal and Araujo 2013, Alessi and Xu 2015). This behavior contradicts the view that MNCs can sometimes propagate cleaner business environments in host countries. While employment generation is widely considered one

⁹ Payne (2009) finds that portfolio investment decreases governments’ respect for economic and social rights while the assessment on the impact of FDI is agnostic. Rudra (2002) discovers that host country conditions matter more than the inflow of investments and capital per se. Among developing nations, labor’s collective-action problems, caused by large populations of low-skilled and surplus workers, offset labor’s potential political gains from globalization.

of the biggest benefits of FDI, and jobs generated through FDI are typically regarded to be higher in quality and skill content (Pandya 2010), Chinese investments in developing economies are often perceived to plunder resources rather than generate jobs. Chinese firms bring workers from home rather than hiring locally and, when they do hire locally, offer jobs with poor working conditions and prospects (Meunier 2012, Huang and Ren 2013). Compared to their western counterparts, Chinese investments have also been criticized by numerous human rights and environmental groups for suppressing union activities and for failing to adhere to minimal labor and environmental standards.

China's MNCs are now the new face of the "race to the bottom."

Although many observe that Chinese FDI impacts the host country differently than traditional MNCs, few have analyzed why the differential exists. Some perceive Chinese firms' engagements with rogue states to be part of China's purposeful economic diplomacy and statecraft, but to what extent state objectives drive China's outward investments remains highly debated and is a central puzzle that this dissertation aims to explain. In addition, empirical evidence is scant on whether leaders in rogue states have indeed survived longer with investment inflow from China. As ruling dictatorships faltered in Libya, Syria, and Myanmar, there is little evidence that China flexes its economic muscles (e.g. sanctions and embargoes) to influence political outcomes.¹⁰ In terms of perpetuating bureaucratic corruption, low wages, and poor practices of corporate social responsibility, most think those phenomena simply mirror

¹⁰ Notable exceptions are the rare earth case and the Dalai Lama effect (Fuchs and Klann 2013). Instead of sanctioning entire countries, China prefers to target individual companies through economic pressure, often receiving quick responses from corporations eager to sustain their position in the lucrative China market (Reilly 2012).

similar conditions in China's domestic political economy (Huang and Ren 2013).

Although the statement may be observationally true, it does not explain why China's MNCs do not adapt to proven international standards. As relative newcomers to transnational operations, are Chinese MNCs still climbing the learning curve or do structural factors render their incentives and experiences fundamentally different? After all, western MNCs do not lobby for better business environments or comply with CSR standards out of altruism; they do so because it helps them achieve a more lucrative bottom line (Hernandez-Murillo and Martinek 2009).

In this dissertation I argue that unpacking the relationship between the Chinese state and China's MNCs helps us to understand not only their investment decisions but also how firms interact with host governments and local actors once investments are made (Chapter 5). That SOEs take on policy roles and can count on the state's financial support has important implications for their *modus operandi* in host countries. Their commitment to state goals and higher risk tolerance make them less sensitive to economic cycles and provides more stable employment opportunities. That Chinese investment is state-led does not necessitate negative impact for development in host countries. For the same reasons, Chinese investment is also highly resilient to political change and policy uncertainty which allows China to engage economically with politically volatile destinations without directly interfering with their internal governance. The fear that China is installing dictators through economic statecraft is likely overblown. The general impression we hold about Chinese firms' penchant for bribery and poor CSR practices also turns out to have a surprising explanation in the cases of Zambia and Vietnam: Chinese investors' image of being cash rich leaves them

vulnerable not only to opportunistic allegations for violating local regulations but also to demands for bribes by bureaucrats for delivering routine services. It is beyond the scope of the dissertation to address every aspect of the impact of Chinese investment on host countries, but I aim to disentangle some of the myths and realities about Chinese MNCs' differential impact compared to their western counterparts. Where Chinese MNCs do differ, I demonstrate that Chinese SOEs' higher risk tolerance and relative lack of financial constraints provide substantial, though still incomplete, leverage in explaining the difference.

FDI and Foreign Policy

International relations scholars have written extensively about the connection between power aspirations and overseas economic interests (Krasner 1978; Gallagher and Robinson 1981; Davis and Huttenback 1986; Frieden 1994; Lake 1997; Biglaiser and DeRouen 2007). From Hobson's thesis (1965 [1902]) on the origins of imperialism to more recent studies on U.S. congressional voting on foreign policy (Fordham 1998; Trubowitz, 1998), a rich literature suggests that, when societal actors possess substantial economic interest overseas, they tend to adopt a broader interpretation of national interest and place pressure on the state to pursue more assertive security policies to protect their overseas assets. The history of American direct investment coincided with expanding military presence of the home government. The American military intervened aggressively numerous times in the Caribbean, Mexico, Central America, and South America, aiding corporations from United Fruit to Standard Oil. Although

today military intervention is a less accepted practice to protect foreign investments (Finnemore 2003), studies continue to find that investment and security are complementary. Biglaiser and DeRouen (2007) find that U.S. troop deployment is positively correlated with not only American corporations' decision to invest in a certain destination but also the amounts invested.

China's growing overseas investments, not surprisingly, draw speculation about the trajectory of China's foreign policy. As China continues to invest farther afield to acquire strategic resources, many question to what extent China will be able to adhere to its official doctrine of non-interference. There is a fear of a nascent form of neo-imperialism. Meanwhile, optimists wonder how soon China will be able to provide public goods, and share the burden of maintaining global order with the current hegemon.

In this dissertation I argue that the link between overseas economic interests and foreign policy is mediated by domestic politics at home. The literature has so far given limited consideration to the role of domestic political institutions in shaping foreign policy. Historically, in order to sustain inefficient production, autocracies have been found to have a tendency to over expand and engage in empire building compared to democracies (Lake, 1997). Politics with oligarchic, "cartelized" structures are prone to expansion due to logrolling among parochial interests each with a monopoly on material, organizational, or informational power assets (Snyder, 1993). This mechanism, Snyder contends, provides a powerful explanation for the aggression of Japan and Germany during the twentieth century. Milner and Tingley (2015) explore the domestic politics of American foreign policy. They find that material interests and divisive ideology

harbored by Congress and interest groups impose constraints on the American presidency, leaving the president with few viable foreign policy tools other than militarism.

The core argument in this dissertation points to the insulating effect of disenfranchised taxpayers in moderating the connection between corporations' material interests and the home government's foreign policy toward the corporations' sites of investment. Because China's SOEs are ultimately bankrolled by the non-voting public, China's foreign policy can remain relatively independent from parochial corporate interests and maintain a stance of non-interference in spite of rapidly accumulating assets abroad.

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Chapter 2

Firms, Home Government, and Outbound FDI

In the introductory chapter I proposed the dilemma in placing emerging investors in the existing framework of FDI theory. The prevalence of state-owned enterprises (SOEs) and the autocratic nature of home governments raise questions about how we should conceptualize their behaviors: Can we consider them autonomous, profit-maximizing entities as current theories assume, or is it more accurate to treat them as an extension of the home state?

How elite preferences result in firm-level outcomes on international investments is poorly understood. Existing FDI theories pay scant attention to the role of the home state. According to the new new trade theory, firms' varying propensities to engage in foreign markets stems from heterogeneity in productivity: only the more productive firms export to foreign markets and, among those who export, only the most productive will engage in FDI (Melitz 2003, Helpman, Melitz, and Yeaple 2004).¹ A key implicit assumption in Helpman, Melitz, and Yeaple (2004)'s model of FDI is that firms are self-contained, profit-maximizing entities autonomous from the home government. Preference of the elite plays no role in shaping firms' investment activities. This assumption may aptly portray the average private firm in developed economies, but it is unclear to what extent it applies to SOEs and firms from autocracies. An alternative view is that firms from autocracies are simply instrument of the state and that their

¹ Melitz' (2003) theory introduces firm-level heterogeneity in trade; Helpman, Melitz, and Yeaple (2004) extend a similar logic to FDI.

investment activities reflect the state's agenda. However, little is understood as to exactly how the state delegates its agenda to firms and ensures implementation.

In this chapter I present a hybrid view that amalgamates both the profit-centric perspective and the state-centric perspective. Building on two workhorse models in international political economy, I propose a general framework in which firms' foreign economic activities are shaped by both elite intervention and firms' profit calculus. I outline my theoretical logic in two steps: First, I introduce policy distortions into Helpman, Melitz, and Yeaple (2004)'s seminal model. I show that political elites can devise policy incentives that alter the relative costs firms face when operating overseas vs. domestically, thereby encouraging profit-maximizing firms to invest or not invest overseas in accordance with the preferences of the state. In other words, the elite accomplishes state objectives by manipulating market mechanisms.

In the second model I problematize the preferences of the elite and model explicitly the strategic interaction between the elite and firms. Once we place policy incentives in the context of a strategic game between elites and firms, I show that, as long as the elite is dependent on SOEs to carry out her agenda, privileging SOEs with policy perquisites is the equilibrium outcome. However, these policy perks can also give way to perverse consequences. The state's dependence on SOEs can lead to rent capture: SOEs, knowing that they will be bailed out when investments go badly, seek out riskier overseas investments to extract rents. I show in addition that the less accountable the political system is to the public (i.e. the more easily elites can pass on the costs of bailout to taxpayers), the more likely capture will occur, a departure from the image that autocratic leaders possess ironclad control over their agents. Following

Grossman and Helpman (1994), I model elites' political survival not only as a function of fulfilling certain state goals (e.g. energy security; economic growth) but also of rent extraction and sharing. This combination portrays more aptly the way policy perquisites are distributed in reality: SOEs are favored not just because they are agents for accomplishing certain state objectives, but also because they collude with elites to seek rents. The model predicts that the less public accountability, the more likely elites are to bail out firms for the purpose of rent-seeking.

Taken together, my theory suggests that, while elites can manipulate market mechanisms to accomplish their objectives, such manipulation can also lead to perverse outcomes. The link between the state and firms, even for SOEs in an autocracy, is far from automatic or direct.

2.1 Productivity, Policy Distortions, and Outbound FDI

Why do some firms produce only domestically, some export, and others set up franchises overseas? Melitz (2003) was the first to model the heterogeneity of firms in the global economy, theorizing that opening up to trade will induce more productive firms in an industry to export and simultaneously force the least productive firms to exit. This seminal work and the large body of scholarship that followed have come to define the new new trade theory, in which scholars exploit firm-level differences to explain the structure of international trade.² Helpman, Melitz, and Yeaple (2004), hereafter HMY,

² Earlier trade theory (the Ricardian and Heckscher-Ohlin models) identifies comparative advantage and relative factor abundance as drivers for inter-industry trade (See Bhagwati 1964 for a review). The new trade theory identifies expanding product variety and economies of scale under as additional gains from trade, lending explanation to intra-industry trade (Krugman 1979, 1980). However, the new trade theory

extend the argument to foreign direct investments. The within-sector firm productivity differences that explain the structure of trade, they theorize, also explain patterns of international investments. Their key insight is that, in the presence of monopolistic competition, only the more productive firms export to foreign markets and, among those who export, only the most productive will engage in FDI. HMY's theoretical insight has been verified across many economies including the United States (Yeaple 2008), Japan (Kwon 2007), the UK (Girma et. al., 2005), Germany (Wagner 2007), and Slovenia (Damijan et. al. 2007). Empirical research consistently finds that productivity predicts firms' propensity to engage in overseas investments.

The role of the home state, however, is decidedly missing in HMY. This omission is unfortunate because, just as government policies mediate the openness of a country to receiving FDI, they are equally powerful in regulating firms' propensities to engage in overseas investments. Governments sometimes discourage or prevent firms from expanding overseas. For example, since 2005 American businesses have been able to claim tax credit for goods "Made in America." For much of the 1980s and 1990s the Chinese government limited FDI outflow in order to focus on domestic growth; it only permitted a select few state-owned enterprises to open operations overseas. Similarly, France, Japan, Korea, and Taiwan have all had highly stringent review procedures in the recent past, scrutinizing every outgoing investment project (Solis 2004). At other times, however, governments opt to encourage firms to invest

assumes that all firms are equal and thus cannot explain why we observe the presence of an exporting sector as well as a non-exporting sector in the same industry. The new new trade theory, heralded by Melitz (2003), introduces firm-level heterogeneity as an explanation for the co-existence of exporting and non-exporting firms in the same industry.

internationally, even if such encouragement is selectively applied. Since the 1950s Japan and Korea have used public credit to support the internationalization of their “national champions” (Irwin and Gallagher 2014, Solís 2003) and beginning in 2000 China has been implementing its “Go Global” strategy to facilitate outbound investments that secure natural resources and expand market access.

Intervention by home governments is particularly relevant when we consider investments originating from emerging economies. Direct investments originating from emerging economies now play an increasingly important role in the global economy: With China the largest of the group, investments from developing economies account for 35% of total FDI around the world.³ Among these investors, the prevalence of state owned enterprises (SOEs) and the autocratic nature of home governments raise questions about how we should conceptualize their behaviors: Can we consider them autonomous, profit-maximizing entities as current FDI theories assume, or is it more accurate to treat them as an extension of the home state?

In this section I update HMY’s original model to incorporate policy distortions imposed by political elites, amalgamating both the profit-centric perspective and the state-centric perspective. I show that, at any given level of productivity, elite intervention can increase or reduce firms’ propensity to invest overseas by altering the relative costs firms face operating domestically vs. overseas. In other words, I show that political elites can devise policy incentives that alter the relative costs firms face when operating overseas vs. domestically, thereby encouraging profit-maximizing firms

³ Author’s calculation based on UNCTAD bilateral investment data, 2014. Developing economies include all economies that are not classified as developed by UNCTAD.

to invest or not invest overseas in accordance with the preferences of the state. The elite accomplishes state objectives by manipulating market mechanisms.

2.1.1 Helpman, Melitz, and Yeaple (2004): The Original Model

In this section I present an overview of the HMY model, omitting and altering a few details for brevity. Interested readers may refer to HMY's original article for the full model. The HMY model is a general equilibrium model with N countries and $H+1$ sectors.⁴ Within a sector h nature determines a firm's productivity, $1/a$, measured by a labor-per-unit output coefficient a drawn from the distribution $G(a)$. Once a firm in Country i sees its draw of productivity it first decides whether to produce domestically or exit the industry altogether. If it decides to engage in domestic production it then considers whether it should additionally engage in export or FDI. In their domestic operations, firms are assumed to bear a fixed cost f_D . Firms serving foreign markets through export bear additional fixed costs f_X per foreign market. Finally, when serving foreign markets through FDI firms instead bear fixed cost f_I per foreign market. Assume that $f_I > f_X > f_D$.⁵ One can think of f_X as the cost of setting up a distribution network in a foreign country and f_D as the cost of building a new plant (along with a distribution network) in a foreign country.

⁴ One sector produces one homogenous product, which is the numeraire good. H sectors produce differentiated products.

⁵ This inequality is a stricter assumption than the fixed cost inequality assumed in the original paper and than what is necessary to obtain the model's core results. In the original paper the inequality also incorporates adjustment terms to correct for differential wages and transport costs across countries. I have omitted these adjustment terms for easier explication. See equation 1 and footnote 13 of the original paper for a thorough explanation.

For a firm with labor productivity $1/a$ the operating profit from serving the domestic market in Country i can be written as $\pi_D^i = a^{1-\varepsilon} B^i - f_D$, where $B^i = (1 - \alpha)A^i/\alpha^\varepsilon$. A^i is the level of demand in Country i , which is exogenous from the perspective of the individual firm. ε , defined as $\varepsilon = 1/(1 - \alpha) > 1$, is the price elasticity of demand for the firm's product and is assumed to be constant across countries.⁶

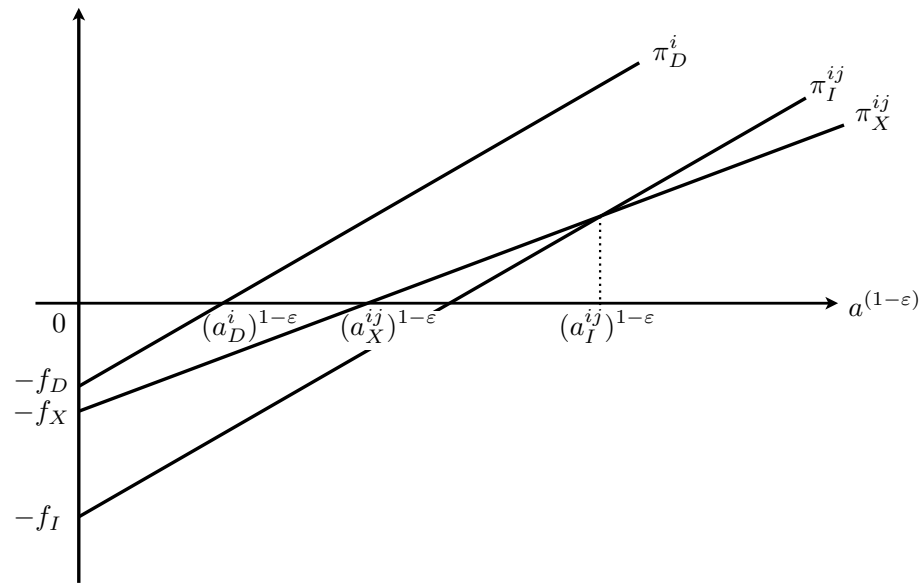
Analogously, the additional operating profits from exporting to Country j can be written as $\pi_X^{ij} = (\tau^{ij}a)^{1-\varepsilon} B^j - f_X$, where τ^{ij} is a "melting iceberg" transport cost between countries i and j .⁷ The additional operating profits from engaging in FDI in Country j can be written as $\pi_I^j = a^{1-\varepsilon} B^j - f_I$. The three profit functions π_D^i , π_X^{ij} , and π_I^j are represented graphically in Figure 2.1a below. For simplicity, Figure 2.1a portrays the case of equal demand across all countries, i.e. $B^i = B^j$. Note that the horizontal axis, $a^{1-\varepsilon}$, is a productivity index and increases monotonically with the underlying labor productivity $1/a$. The profit functions for domestic production and FDI are parallel because we have assumed equal demand, but the profit for FDI is lower for any given a because the fixed cost associated with overseas investments is larger ($f_I > f_D$). Export profits have a smaller slope due to transport costs that eat away a fraction of the value of every unit shipped (domestic and FDI operations avoid this cost).

⁶ Refer to the original paper for the full derivation of market price given consumer demand A^i , and the resulting profit function for the firm.

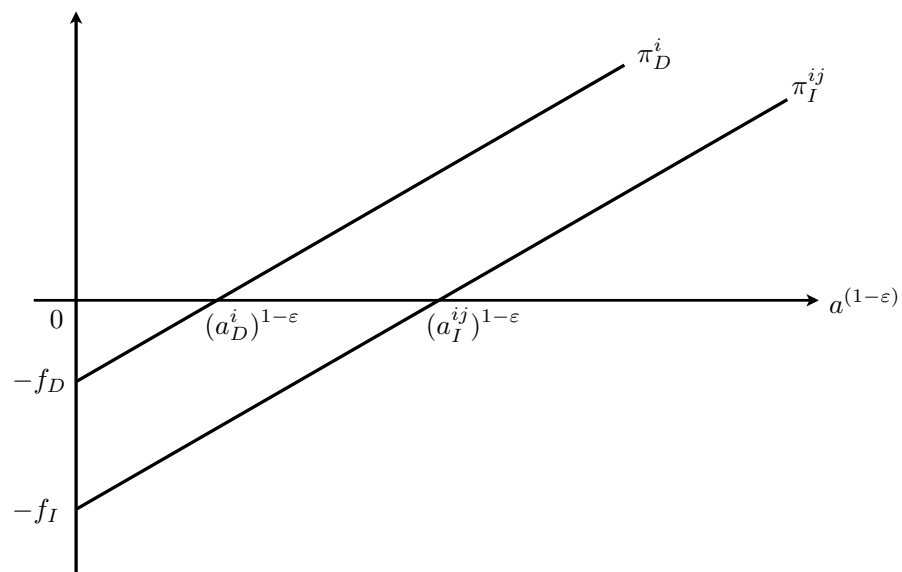
⁷ Melting iceberg transport costs account for shipping when the firm chooses to export. These costs are modeled using a factor $\tau^{ij} > 1$ that specifies the number of units that have to be shipped for one unit to arrive. A value for τ^{ij} of 1.1, for example, represents a case where about 10 percent of the value of the product is lost via shipping costs.

HMY's key results are apparent from Figure 2.1a. Productivity determines whether a firm engages in foreign economic activities. When a firm's productivity index is lower than $(a_D^i)^{1-\varepsilon}$, it will exit the industry entirely. When its productivity index is greater than $(a_D^i)^{1-\varepsilon}$ but below $(a_X^{ij})^{1-\varepsilon}$, the firm will only produce and sell domestically. When the firm's productivity index is valued between $(a_X^{ij})^{1-\varepsilon}$ and $(a_I^{ij})^{1-\varepsilon}$ it will produce and sell domestically and also export to Country j , but not engage in FDI. When the firm's productivity index is greater than $(a_I^{ij})^{1-\varepsilon}$ it will produce and sell domestically and thorough FDI in Country j , but not through export. In other words, once a firm's productivity is high enough for it to engage in foreign activities it will choose either export or FDI as a way to access international markets, but not both.

In the remainder of the paper I will build from a version of the HMY model that abstracts from trade: Since my focus is the political economy of outbound FDI, I assume that firms' access to international markets is through FDI. This simplified world is depicted by Figure 2.1b, in which firms can choose to either operate only domestically or establish international franchises depending on their draw of labor productivity $1/\alpha$. This model is more straightforward to work with here, but the core insights can easily be generalized back to a state of the world that permits both trade and FDI.



(a) Results in Helpman, Melitz and Yeaple (2004)



(b) Simplified model of FDI

Figure 2.1: Relation Between Productivity and International Activities

2.1.2 Introducing Policy Distortions: Subsidies for Outbound FDI

Note two important features of the HMY model. First, the world is composed strictly of consumers and producers; there is no governmental intervention in market activities. Second, the only source of firm-level heterogeneity in HMY comes from differences in productivity: in a given industry h , some firms are more productive than others and engage in FDI as a result.

I introduce two modifications to the model: First, I incorporate the role of the political elite in Country i . Suppose that the elite of Country i has an interest in promoting the international expansion of industry h . For concreteness, one can think of China's current strategy to develop natural resources overseas in order to ensure energy security, or Japanese and Korean strategies since the 1950s to aid the development of "national champions" (Irwin and Gallagher 2014, Solís 2003).⁸ To accomplish these strategic goals, political elites provide firms with incentives like subsidies, discount loans, or insurance to encourage them to make overseas investments. For expositional purpose in this stylized model I consider a specific type of incentive, a subsidy to the fixed cost (f_I) of setting up overseas production.⁹ I call this subsidy s_I . Second, I introduce firms' varying ties to the state. This enters as a second source of heterogeneity in addition to productivity. Here I consider two types of firms, an SOE and a private firm (PRV) operating in the subsidized sector, h . I assume further that the

⁸ In the case of natural resource strategies (where the resources are shipped home rather than sold in the host country), the HMY model can be slightly modified, replacing foreign demand (A^J) with domestic demand (A^i). The graphical model I present here applies equally well to both cases since (for simplicity) it assumes demand is the same across markets.

⁹ The logic presented here can easily generalize to other types of financial incentives including explicit bailouts, capital injection, a steady stream of cheap credit, and insurance payouts.

private firm operates autonomously from the elite. The elite depends on the SOE to fulfill its strategic goals and allocates all subsidies to the SOE. In this first step, I do not model the elite's preference or her decision process for subsidy allocation. For the moment s_I is also assumed exogenous from the perspective of the firms. The strategic interactions between the firms and political elite will be modeled explicitly in Section 2.2 below.

The SOE and private firm obtain their draws of productivity from the same distribution of labor per unit output, $G(a)$. I also assume that in sector h the political elite introduces no further policy distortions. Her only intervention is to subsidize the SOE with s_I , tied specifically to overseas investments. The profit functions for the SOE and private firm are thus identical for domestic production and can be written as $\pi_D^i = a^{1-\varepsilon} B^i - f_D$, as in HMY's original model. The profit functions for FDI, however, are now different for the two firms. For the SOE, profits are $\pi_{I,SOE}^{ij} = a^{1-\varepsilon} B^j - (f_I - s_I)$. For the private firm, profits are $\pi_{I,PRV}^{ij} = a^{1-\varepsilon} B^j - f_I$. Graphically, this is an upward shift of the SOE's profit curve relative to that of the private firm, represented in Figure 2.2. In other words, at any given level of productivity, the profit the SOE earns by investing in Country j will exceed that of the private firm by s_I . The SOE will opt to invest overseas as long as its productivity index exceeds $(a_{I,SOE}^{ij})^{1-\varepsilon}$, whereas a private firm will only engage in FDI if its productivity index exceeds $(a_{I,PRV}^{ij})^{1-\varepsilon}$. The SOE and private company are modeled as representative firms of industry h . In expectation, with respect to any foreign country j , a larger portion of SOEs in industry h will invest

in Country j than private firms, even though their levels of productivity are drawn at random from the same distribution.

If s_I is large enough (i.e. the political elite subsidizes overseas investment very generously), one can expect the perverse result of “phantom” SOEs that produce exclusively overseas. With large enough s_I , as depicted by s_{I2} and profit function $\pi_{I,SOE2}^{ij}$ in Figure 2.2, the SOE can earn a profit in Country j even if it is not competitive enough to operate domestically. The SOE will operate exclusively overseas as long as its productivity index falls somewhere between $(a_{I,SOE2}^{ij})^{1-\varepsilon}$ and $(a_D^i)^{1-\varepsilon}$, the productivity threshold required to remain profitable in the domestic market. This result directly contradicts one of HMY’s core insights: in their model of the economy the more productive firms engage in foreign activities and serve both domestic and foreign markets. In my modified model, due to the policy distortion introduced by the political elite, it is possible for a less productive SOE to invest overseas and it is also possible for a firm to produce in the overseas market alone. In fact, this theoretical result aptly describes the wave of “Going Global” currently spreading across China’s steel industry. China’s steel production has long been plagued by overcapacity. The prevalence of SOEs in the sector, however, means that the industry contributes to local revenue, wields political clout, and is shielded by local protectionism. Instead of letting the less productive firms exit the sector, the industry has lobbied successfully in recent years for policies in support of exporting excess capacity and setting up overseas steel plants.¹⁰

¹⁰ China’s steel industry is trapped in an “overcapacity” paradox: steel manufacturers, many of which are state-owned, continue to expand even as stock accumulates, steel prices continue to fall, and the manufacturers suffer losses year after year. The Chinese government now offers policy support to encourage steel plants to relocate overseas (China’s Ministry of Industry and Information, for example, is

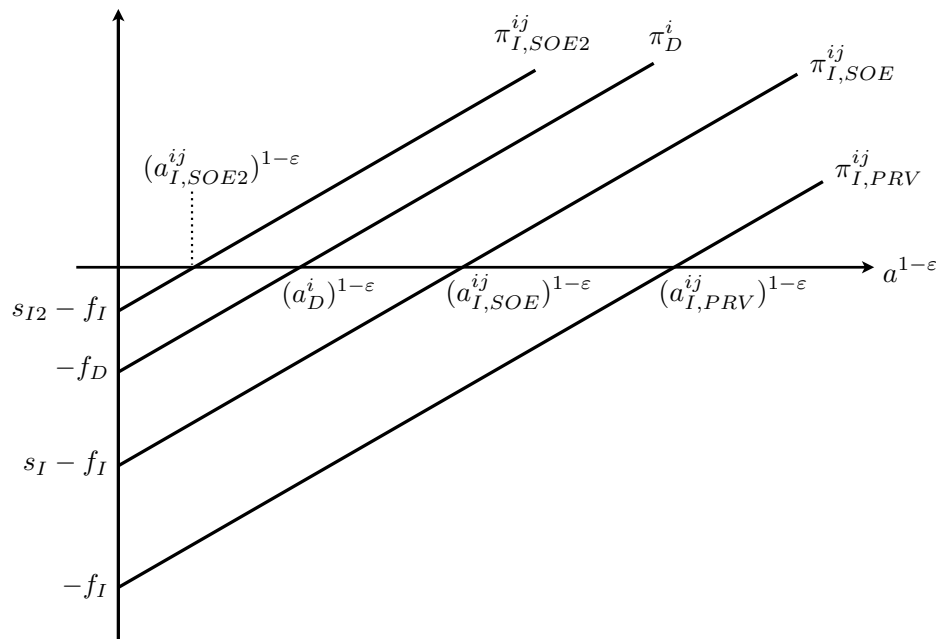


Figure 2.2: Subsidies for Outbound FDI

2.1.3 Introducing Policy Distortions: Subsidies for Domestic Production

SOEs are responsible for a large share of employment in China as well as other developing countries (Behar and Mok 2013; OECD 2009). This leads to a second potential objective for the elite in terms of local employment and revenue streams. To model this, suppose that the SOE can contribute to employment in a domestic sector k . For concreteness, consider a labor-intensive manufacturing industry.

in the process of developing a multi-billion dollar special fund to encourage the international expansion of China's overcapacity industries). The strategy, not surprisingly, has met disappointing results so far (e.g. Bao Steel and Wuhan Steel both failed in Brazil). Analysts reason that the strategy is failing because (1) Chinese steel manufacturers are uncompetitive in international markets; (2) with the global slowdown, overseas markets do not have so-called "unmet" demand. See <http://economy.caixin.com/2012-05-29/100395169.html> for an analysis of the difficulties plaguing China's steel industry.

In this sector the elite prioritizes firms' domestic growth above overseas investment. To accomplish this objective elites offer subsidies on fixed costs for the SOEs' domestic investments. I call this subsidy s_D and, as in the previous section, assume that the private firm operates autonomously from the elite. Also as before, we assume nature determines the SOE's and private firm's productivity from the same distribution, $G(a)$. Finally, for simplicity, assume that the elite have not introduced other policy distortions in sector k .

The SOE's profit function for domestic production can now be written as $\pi_{D,SOE}^i = a^{1-\varepsilon}B^i - (f_D - s_D)$, whereas the private firm's profit function is $\pi_{D,PRV}^i = a^{1-\varepsilon}B^i - f_D$. Graphically, this is represented in Figure 2.3 as an upward shift in the SOE's domestic profit function relative to that of the private firm. At any given level of productivity, the profit for the SOE operating domestically in industry k exceeds that of the private firm by s_D . The profit functions for operating overseas in Country j are the same for the SOE and the private firm and can be written as $\pi_I^{ij} = a^{1-\varepsilon}B^j - f_I$. Both the SOE and private firm will invest in Country j if their productivity indices are greater than $(a_I^j)^{1-\varepsilon}$. To operate domestically, however, the SOE's productivity only needs to correspond to $(a_{D,SOE}^i)^{1-\varepsilon}$ or greater. For the private firm, its productivity index must be greater than $(a_{D,PRV}^i)^{1-\varepsilon}$. In expectation, a larger portion of private firms will choose to invest overseas in industry k than SOEs. In other words, private firms are more likely to invest overseas than SOEs in industry k given the same draw of productivity.

So far I have assumed that the introduction of the subsidy s_D has no impact on f_D , the baseline fixed cost faced by firms operating in sector k in Country i . However, it is easy to imagine that the resulting entry of SOEs could increase costs for the private firm. To explore this, think of s_D in this highly stylized model as referring to any type of governmental support that lowers cost for the SOE. For example, the SOE may be given access to an abundance of land, thereby driving up land prices faced by the private firm. Or, the SOE could be given priority in obtaining permits and licenses, lengthening the wait time for the private firm. More generally, consider advantages the SOE might be given in bidding processes, diminishing or even eliminating private firms' access to certain opportunities. All these hindrances drive up the cost facing the private firm. When f_D becomes large enough, it can exceed f_I , the fixed cost associated with making overseas investments. Line $\pi_{D,PRV2}^i$ in Figure 2.3 depicts this scenario. In this world, a private firm whose productivity index exceeds $(a_{D,PRV2}^i)^{1-\varepsilon}$ will operate both domestically and in Country j . A private firm whose productivity index is valued between $(a_j^j)^{1-\varepsilon}$ and $(a_{D,PRV2}^i)^{1-\varepsilon}$, however, will be **crowded out of the domestic market** in Country i but still operate profitably overseas in Country j .

This scenario portrays a key motivation for many of China's private international investors. In an original survey conducted among Chinese firms in 2013, I find that private firms are much more likely than SOEs to identify "circumventing domestic regulatory restriction," a euphemism for unfair market practices, as a primary motivation for seeking investment overseas. Details about this survey are presented in Chapter 4.

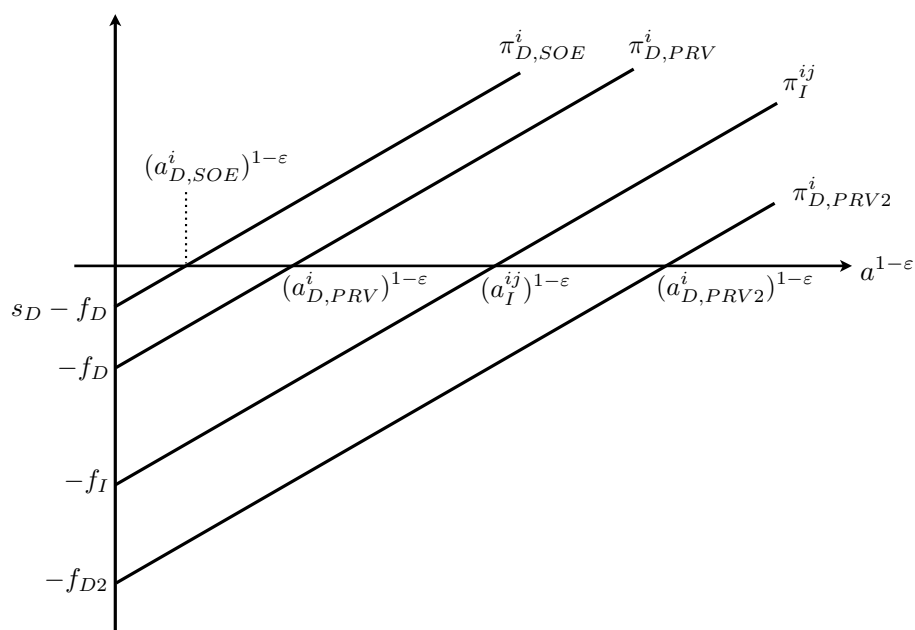


Figure 2.3: Subsidies for Domestic Production

2.1.4 Discussion

In this section I have modified the original HMY model to accommodate policy distortions imposed by the political elite of the home country. I show that, **by changing the relative costs of setting up domestic vs. overseas operations, the elite can alter a firm's propensity to invest overseas at a given level of productivity**, thereby encouraging profit-maximizing firms to invest overseas (or not invest overseas) in a sector in accordance with the objective of the elite. Furthermore, the uneven application of the distortionary policy (e.g. targeting SOEs with subsidies while excluding private firms) introduces **a new source of heterogeneity among firms: firms' differential access to policy perquisites**. In the presence of policy distortion and differential access, I have demonstrated that productivity is no longer the sole

determinant of a firm's propensity to invest overseas in a given industry; this propensity also depends on the firm's access to state subsidy and the direction of this subsidy (which in turn is determined by elite objectives).

Recall that the driving puzzle of this dissertation is whether state preferences or market forces drive the behaviors of multinational corporations originating from autocracies, especially SOEs. What I show with this model is that **firms do not need to be immune from profit incentives to act according to state preferences**. In my model, SOEs are assumed to be profit maximizing. The elite is able to regulate their behaviors not through political command, but by manipulating market mechanisms with distortionary policies. This hybrid approach generates a pair of predictions: (1) Productivity is a determinant of firm's propensity to invest overseas in a given sector; this reflects the force of the market. (2) Controlling for productivity, elite preference predicts the behavior of firms; this reflects elite intervention. I will test these predictions empirically using firm-level data on China's outbound direct investments in Chapter 3.

In addition to these core insights, there are two features to note about the model:

First, in my model I consider two broad types of elite interventions. One is changing the costs associated with overseas investments and the other is changing the costs associated with domestic investments. Although I have modeled them separately, they do not need to be mutually exclusive. The basic insight is that elites can alter firms' choice by simply modifying the relative costs of foreign vs. domestic activities.

Second, policy incentives are modeled to be exogenous from the perspective of firms in this model. I have not modeled the preference of the political elite or the

interaction between the elite and SOE. This is not entirely satisfactory given the central question of this dissertation, which is to what extent we can conceptualize SOEs to be agents of the state. In the next section, I will model the preferences of the elite and the firm, whereby policy incentives become an endogenous outcome of the actors' strategic interactions. I show further that, when these policy incentives are costless for the elite to implement (e.g. in an autocracy where the taxpayers are disenfranchised and cannot hold the elite accountable for distributive consequences), state interests are vulnerable to rent capture. SOEs can hijack the elite's policy objectives to seek rents.

2.2 Elite Preference, SOE, and Rent Capture

In the previous section, I have shown that policy distortions in the domestic economy, imposed by the political elite of the home country, can shape firms' outbound investment decisions, but I have taken the distortionary policy as given. In this section, I model the interaction between the elite and SOE, where **the elite has to make a decision regarding whether to distribute policy incentives to the SOE.**

2.2.1 Basic Model: Conditions for Rent Capture

In this stylized model, I consider four salient actors in the domestic economy: a unitary political elite, two companies that possess equal amounts of capital, one state-owned, the other private, and a representative member of the public. The elite delegates a policy task to the SOE: she depends on the SOE to produce a strategic good and to offer this good to the public at a discount, forgoing a fraction x of profits. To make it

more concrete, one can think of this strategic good as crude oil. The SOE invests globally to produce this good, obtaining a rate of return, r . For every unit of return the SOE makes on the world market it provides two things: (1) it uses a fraction x of the return to provide a discount on this strategic good to the public at home; (2) it shares the return at a rate m with the political elite. The private firm also invests globally, but does not bear any policy objective from the political elite or share its profit with the political elite.

The SOE and the private firm face two investment options, A and B . A is a risk free investment that earns a certainty return \bar{r} . B is a risky investment, yielding $r_H > 0$ with probability p and $r_L < 0$ with probability $1 - p$. The expected returns for these two investments are assumed to be equal and positive, i.e., $p * r_H + (1 - p)r_L = \bar{r} > 0$. Since only two states of world are modeled, intuitively one can think of the risk associated with Investment B as political: e.g. a civil war is estimated to break out with probably $1 - p$ in the country where Investment B is located.

To encourage the production of x in an uncertain global environment, the political elite considers whether to offer the SOE insurance. If she decides to insure the SOE, she will bail out the SOE by an amount b if the SOE chooses Investment B and the state of the world happens to be r_L (i.e. the civil war breaks out). Assume for now that $b = -r_L$; i.e. the negative return is perfectly offset to zero by the insurance. Assume also that the public bears a certain fraction of the cost of the bailout without penalizing the political elite. Call this fraction d . The political elite bears the rest of the

cost of compensation at the rate $1 - d$. One can think of it as a reduction in governmental revenue.

Borrowing the setup of Grossman and Helpman (1994)'s seminal model, the political elite's utility is defined as a linear combination of public support V and rents accrued to the political elite R . $U_{Elite} = aV(\cdot) + (1 - a)R(\cdot)$, where $0 < a < 1$. The public's support V for the political elite depends on the provision of discount x . For simplicity, assume that the public support function can be written linearly as $V = x(r + b)$, where r is the rate of return the SOE makes on the international market and b is the compensation the SOE obtains from the political elite. Rents accrued to the elite can be expressed as $R = m(r + b) - (1 - d)b$. Note that the bailout term b factors into the elite's utility in terms of both public support and the accrual of rents. This setup differs from the literature's typical treatment of corporate bailouts, in which political elites are often assumed to bail out firms for rents only (e.g. Keefer 2002). The SOE's profit function is then given by $\pi_{SOE} = (1 - m - x)(r + b)$, where we will assume $m + x < 1$ so that at least some of the return remains for the SOE.

The strategic actors in my model are the political elite and the SOE. In this basic version of the model, Nature determines x, m, a and d (this assumption will be relaxed later). The only strategic decision involved for the political elite is whether to implicitly insure the SOE. The elite's strategy set is {bail, no bail} in the event of a low return outcome. The decision for the SOE pertains to which investment to make. The SOE's strategy set is $\{A, B\}$. The expected payoff table is presented below. Note that

the private firm is indifferent between Investments A and B since they have the same expected return.¹¹

Table 2.1: Payoffs From Alternative Investments Under Implicit Insurance

	Investment A	Investment B	Investment B , with insurance
Private	\bar{r}	$pr_H + (1 - p)r_L = \bar{r}$	
SOE	$(1 - m - x)\bar{r}$	$(1 - m - x)\bar{r}$	$p(1 - m - x)r_H$
Elite	$ax\bar{r} + (1 - a)m\bar{r}$	$ax\bar{r} + (1 - a)m\bar{r}$	$p(ax + (1 - a)m)r_H + (1 - p)(1 - d)(1 - a)r_L$

The SOE's payoffs, however, can be quite different between A and B , depending on whether the elite insures the SOE. If the SOE knows that the elite will offer a bailout, it will always choose Investment B , the riskier investment.^{12,13} Given the SOE's strategy, the equilibrium of the game will be determined by whether the elite chooses to bail out the SOE. From the above table of payoffs, we know that the elite will choose to bail out the SOE if the following inequality is satisfied:¹⁴

$$x > \frac{1 - a}{a} (1 - d - m) \quad (2.1)$$

¹¹ The private firm is not a strategic actor in the model. Its payoff, however, is nonetheless presented here for illustrative and benchmarking purposes.

¹² To prove check that $[B(\text{with bail}) > A]$. From the table, that is: $(1 - m - x)pr_H > (1 - m - x)\bar{r}$, which is always true.

¹³ This behavior embodies what we call moral hazard. Originating from the study of insurance markets, the term refers to the perverse phenomenon where beneficiaries, knowing that they are insured, are incentivized to take greater risks. The SOE in my model is no exception.

¹⁴ To obtain this inequality, solve $p(ax + (1 - a)m)r_H + (1 - p)(1 - d)(1 - a)r_L > ax\bar{r} + (1 - a)m\bar{r}$. Note that the resulting inequality is free of r_H and r_L . This makes intuitive sense: higher probability of bailouts both means more expense and more potential gains for the elite.

The above inequality, combined with the feasibility constraint $m + x < 1$, defines the possible outcomes (all Nash equilibria) of the game where the SOE will select B from its choice set, $\{A, B\}$, and the elite will choose bail from their choice set, $\{\text{bail, no bail}\}$.¹⁵ **These equilibria portray what I call rent capture:** The political elite is dependent on the SOE to accomplish a certain policy objective; simultaneously the SOE, knowing that the elite will bail them out, seeks riskier investments.¹⁶ Choosing B over A , the SOE captures a higher return in expectation. The portion of the return in excess of the market return is precisely the definition of rent. The elite delegates the policy objective to the SOE, but the SOE has hijacked this objective in pursuit of rents.

Inequality (2.1) defines the general condition for bailouts (and in effect rent capture) to occur. Given the large number of parameters, it helps to interpret the substantive meaning of the inequality through a few illustrative cases. Figure 2.4a presents the case where Nature has chosen $a = 0.75$ and $d = 0$. In this case, the elite cares a great deal about public support ($a = 0.75$) and some about rent-sharing, and the taxpayers do not absorb any cost of the bailout ($d = 0$). The Nash equilibria involving rent capture populate the area of the shaded triangle, demarcated by inequality (2.1) and the constraint $m + x < 1$. Note that, even though the taxpayers will not absorb any cost of the bailout, the elite will still choose to insure the SOE if x is sufficiently large (i.e.

¹⁵ The Nash equilibrium when inequality (1) is not satisfied involves no bailout and a firm that is indifferent between A and B (though in practice it will prefer A in this scenario if even a small amount of risk aversion is present).

¹⁶ To see why this outcome constitutes a form of capture, compare it to the hypothetical counterfactual where the policy objective can accomplish itself. In this case, “policy objective” would be indifferent between Investments A and B, since the two investments have the same expected return \bar{r} and will yield the same level of the policy objective ($x\bar{r}$) in expectation. In my model, however, the elite chooses to bail and the SOE always chooses Investment B in equilibrium.

the SOE is efficient at offering the strategic good at a discount to the public) or if m is very high (i.e. the SOE yields the majority of its profit to the elite).

In most mature democracies, we observe scenarios similar to that portrayed in Figure 2.4a. Offering bailouts is politically costly for the elite (d is small). However, she will still do it if the firm is competent enough at providing the strategic good that is vital to public support, or if the firm is extremely generous about offering campaign contributions. It is easy to imagine, however, that in most democracies there are stringent rules governing campaign contributions. To reflect this, we can consider an exogenous restrictive ceiling $m < \bar{m}$ (i.e. the firm can contribute at most \bar{m} of its profit to political campaigns). Under this restriction, the outcome of elite choosing bail and SOE choosing the riskier investment B depends mainly on x and is illustrated by the thin trapezoid area below the dashed \bar{m} line in Figure 2.4a. An illuminating example is the bailout of Wall Street and the distribution of the stimulus package in the American economy. Both were controversial and politically costly, but both still happened in part due to their benefits to the overall economy. It can be argued that Wall Street firms have been rescued not only because they make handsome contributions to politicians, but also because the financial sector is foundational to the overall recovery of the economy.

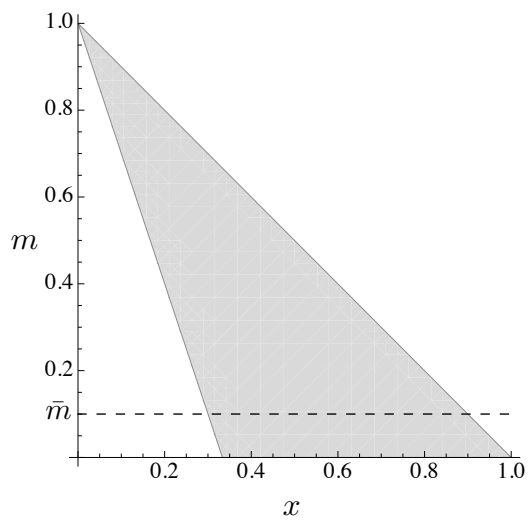
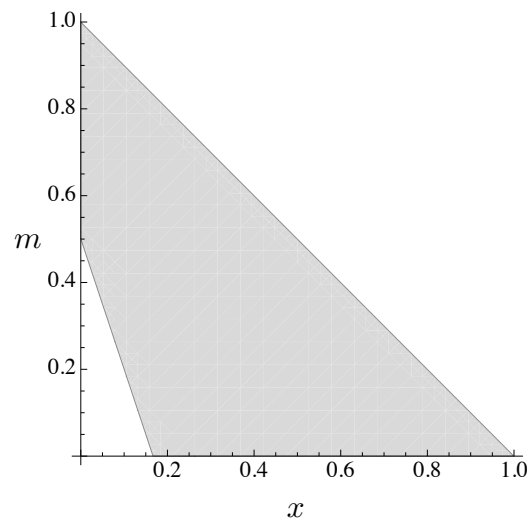
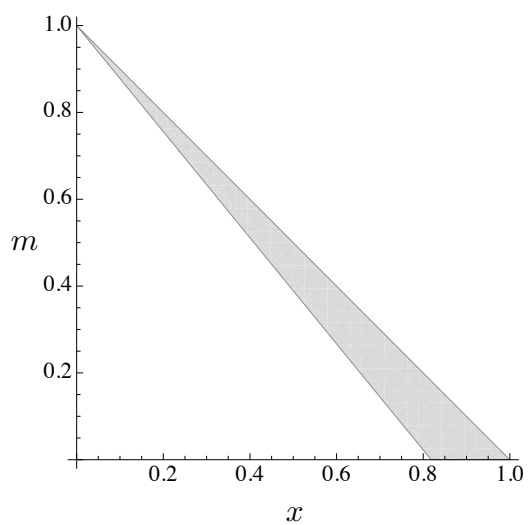
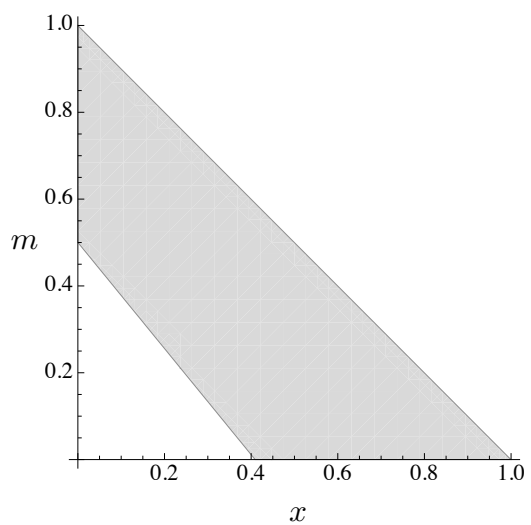
(a) $a = 0.75, d = 0$ (b) $a = 0.75, d = 0.5$ (c) $a = 0.55, d = 0$ (d) $a = 0.55, d = 0.5$

Figure 2.4: Rent Capture in the Basic Model, Key Examples

Figure 2.4b illustrates the case where $a = 0.75$ and $d = 0.5$. The elite's preference for public support vs. rents remains the same as in Figure 2.4a, except that she can now pass half of the bailout costs to the taxpayers. Note that the shaded area in Figure 2.4b is larger than that in Figure 2.4a, meaning the elite will be willing to bail out the SOE (causing it to choose investment B) over a much larger range of x and m .

The easier it is for the elite to transfer the cost of bailout to taxpayers, the more likely she will offer the SOE bailout (and the SOE will make the riskier investment). Note also that, in Figure 2.4a, bailout occurs when x is sufficiently large, but in Figure 2.4b, bailout can occur at a lower provision of x . In other words, when d is large, bailouts can occur even when the SOE is not very effective in accomplishing its designated policy objective.

What if the elite now cares more about rents and less about the provision of the strategic good? Figures 2.4c and 2.4d portray cases where $a = 0.55$. In Figure 2.4c, the elite cannot pass the cost of bailout to the public ($d = 0$) while in Figure 2.4d d is equal to 0.5 and the elite can again pass on half of the cost. It is easy to see that, when the elite cares about rents and cannot transfer the cost of bailout to the public, there is a very small region over which she will bail out the SOE (Figure 2.4c). However, when she can transfer the cost, she is much more likely to offer a bailout (Figure 2.4d).

Comparing Figures 2.4a and 2.4c, we see that, when the elite must absorb the cost of the bailout herself ($d = 0$), bailouts only occur when the elite is sufficiently concerned with the policy objective and the SOE is adequate at accomplishing the objective. However, comparing Figures 2.4b and 2.4d, we see that, when the elite can pass on the cost of

bailout to the public (d is large), she will bail out the SOE even when she cares less about the policy objective and more about rents. Taken together, these results indicate that, **the easier it is for the elite to transfer the cost of a bailout to taxpayers, the more likely she will offer bailouts to the SOE for the purpose of rent-seeking.** That is, the elite and the SOE collude to extract rents from taxpayers through the bailout.

While Figure 2.4a depicts mature democracies, Figures 2.4b and 2.4d aptly portray most autocracies (d is 0.5 instead of 0). In these systems the tax-paying public is disenfranchised, so it is easy for the political elite to transfer the cost of bailout. As a result, the game between the elite and the SOE in an autocracy supports a wider set of Nash equilibria in which the elite offers insurance and the SOE chooses the riskier Investment B . To see this, hold the value of a constant and compare 4a to 4b, 4c to 4d. Although Figures 2.4b and 2.4d both portray autocracies, the distinction between the two is how hungry the elite is for rents. In Figure 2.4b, the political elite is “benevolent” in that her interest is well aligned with that of the state ($a = 0.75$). In Figure 2.4d, however, the elite is a willing accomplice in the SOE’s rent-seeking (or alternatively, the SOE can be seen as an instrument for the elite to extract rents from the taxpayers). Regardless of the elite’s relative preference for the state or public objective vs. rents, she is more likely to engage in bailouts in an autocracy (large d) than democracy (small d). **Due to the lack of public accountability, state objectives are more susceptible to rent capture in an autocracy.**

Interestingly, with $d = 0.5$, the elite’s hunger for rents can decrease the possibility of a bailout in an autocracy (compare 4d to 4b). This result obtains because

the elite in this case still has to bear half of the cost of the bailout, which reduces her income. If $d = 1$ (i.e. the public absorbs the cost of bailout in its entirety), the entire triangle defined by $m + x < 1$ in both Figure 2.4d and 2.4b would be bailout zones, and the autocratic elite would be equally likely to bail out the SOE regardless of her relative penchant for policy objectives vs. rents. This result has a somewhat unexpected implication: in a system with some public accountability (the elite cannot quite pass off all the cost of bailout to the public) and where the autocrat is benevolent, the system is more vulnerable to rent capture than an autocracy in which the elite cares only about rent extraction.

That autocrats, particularly “benevolent” autocrats in moderately accountable autocracies, are susceptible to rent capture by SOEs is a counterintuitive result. We tend to think of SOEs in autocracies as representative of the state’s interest. My model demonstrates, however, that SOEs are at best imperfect agents of the state agenda. While accomplishing the state objective to some extent, SOEs can also take advantage of their designated role in the economy and seek rents themselves.

Additionally, I show in this model that **firms behave differently depending on their ties to the state.** In my model, the SOE bears policy objective as well as contributes rents to the political elite, and the private firm is assumed to perform neither function. In equilibrium, private firms here behave as in most prevailing IPE models: they are risk-neutral and indifferent between the two investment options. The behaviors of rent capture and excessive risk-taking only pertain to SOEs.

2.2.2 Extension: Endogenizing the Political Bargain between Elites and SOEs

In the basic version of the model, a , d , m , and x are taken as given. The elite chooses from {bail, no bail} and the SOE chooses from $\{A, B\}$. This setup essentially assumes a pre-existing agreement between the SOE and the elite in which the SOE provides x units of discount on the strategic good for every unit of profit it makes and shares the profit with the elite at a rate m . In this agreement the SOE possesses a certain degree of autonomy: after providing x and sharing rents with the elite, the SOE is left with the residual profit, and the SOE is free to choose between Investments A and B .

Now I relax this assumption and leave the terms of the agreement to elite-SOE bargaining. That is, how much discount the SOE provides on the strategic good and how much profit it shares with the elite are subject to negotiation between the two parties. To begin, I assume that neither the elite nor the SOE has access to any “nuclear options” in the bargaining process. Their bargaining strengths are relatively balanced in that the elite cannot dissolve the SOE or imprison its executive nor can the SOE unseat the elite when the negotiation fails. In this game, the elite offers a bundle of $[m, x, \text{insurance}]$ to the SOE. The SOE can take this offer, or an outside option of taking $m = 0, x = 0$, and no insurance, i.e., the SOE will operate independently of the political elite if the negotiation fails.

The conditions on m and x under which the elite will offer a bailout remain the same as in inequality (2.1) from the basic model. This is again portrayed by the gray triangle in Figure 2.5a. The SOE, however, will only accept the elite’s offer if it generates a payoff greater than the outside option. That is, if the payoff from

Investment B with bailout exceeds the payoff from operating independently from the state. Since the SOE's outside option yields \bar{r} in expectation, the SOE will accept the elite's offer of $[m, x, \text{insurance}]$ as long as:

$$m + x < \frac{(1 - p)(-r_L)}{pr_H} \quad (2.2)$$

Inequality (2.2) corresponds to the patterned triangle in Figure 2.5a. Figure 2.5a portrays the case for $a = 0.75$ and $d = 0$ (the same scenario as Figure 2.4a, in which the elite cares a lot about the policy objective but cannot pass any cost of bailouts on to the public). Because the region where the SOE will accept the elite's offer (inequality (2.2)) depends on the investment returns, we must also specify those in the example: here $r_H = 1$, $r_L = -0.1$, and $p = 0.1$.

The overlapping regions in Figure 2.5a are the equilibria where the elite and SOE are both willing to accept an $[m, x, \text{insurance}]$ bundle. Neither party would be better off walking away. Equivalently, the overlapping area is the set of m and x where it is mutually beneficial for the elite to offer insurance and for the SOEs to choose Investment B . The actual point chosen will depend on the bargaining strength of the two parties: higher m and x in the overlapping region will be preferred by the elite and lower m and x will be preferred by the SOEs.

Similarly, Figure 2.5b demonstrates the set of equilibria for bailout for the case $a = 0.75$ and $d = 0.5$.

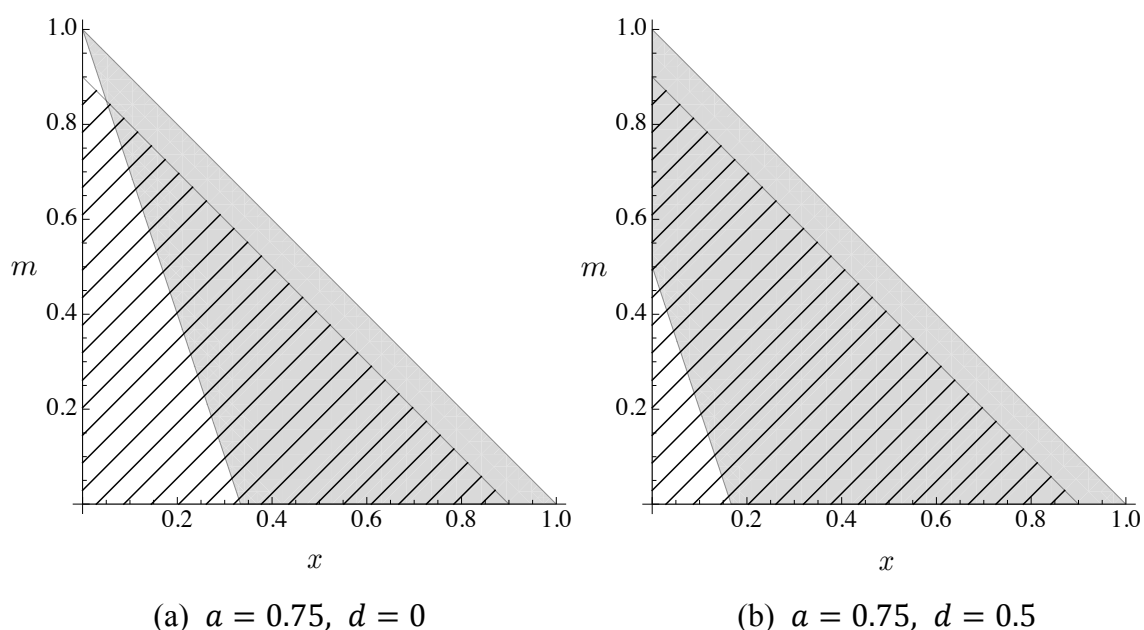


Figure 2.5: Rent Capture as an Endogenous Political Bargain

What happens if the elite or the SOE has all the leverage in this bargain?

Mathematically the dominance of power on one side or the other implies we will reach the extremes of the feasibility constraint: either $m + x = 1$, so all the return goes toward the elite's objectives, or $m = x = 0$, so the SOE keeps everything. Intuitively, suppose the political elite had all the power, there would be nothing stopping her from extracting everything from the SOE and leaving it with no residual profit. I consider both extreme scenarios.

In the first scenario, **the elite has absolute dictatorial power**. One can think of North Korea as an example. If the SOE does not take up the elite's offer of $[m, x]$, the SOE manager's outside option is not to become an independent firm, but be imprisoned or executed by the political elite. In this world the elite will always choose in

equilibrium $m = 1$ or $x = 1$ (i.e. extract everything from the SOE) depending on her relative preference for the state objective vs. rents.¹⁷ If the elite cares about state objective, it will order the SOE to generate as much x possible and no rent ($x = 1$, $m = 0$). If the elite cares about rents, it will mandate the SOE to hand over all profits and produce no x ($x = 0$, $m = 1$). In terms of the investment choice, the elite's preference dominates and it will choose investment B on behalf of the SOE when either of the following is true:

$$(a > 1/2) \text{ or } (a < 1/2 \text{ and } d > 0) \quad (2.3)$$

The conditions imply that, when the elite cares enough about the state objective ($a > 1/2$), she is willing to spend down her own revenue to produce x even if she cannot pass on the cost to the public. Even though there are bailouts and Investment B is chosen in equilibrium, this scenario does not constitute rent capture by the SOE. Instead it portrays an extreme case where the SOE has no autonomy and is used strictly as an instrument to fulfill the policy objective. Alternatively, when the elite cares more about rents ($a < 1/2$), the SOE is used strictly as an instrument for rent extraction, a conduit to funnel money from taxpayers to the elite via global investments, and the elite will choose to bail it out if she can pass on the cost to the public. Here investment B is chosen in equilibrium for the purpose of rent-seeking, except that this time the rent capture is not initiated by the SOE, but ordered by the elite herself.

This portrayal of the SOE is consistent with a prevalent impression of SOEs in an autocracy: they are not driven by profit at all (no residual profit for the SOE in this

¹⁷ Consider the elite's utility function. When $a=1/2$, the elite is indifferent between the policy objective and rents. When $a>1/2$, the elite will want to maximize x . When $a<1/2$, the elite maximizes m .

rendition of the model) and do simply as they are told. Interestingly, the model shows that, when we assume absolute power on the part of the elite, Investment B can still be chosen under the conditions portrayed in inequality (2.3). These equilibria present a challenge for when I test for the presence of rent capture empirically, since the SOE can end up taking excessive risks either by the command of the elite (as described above) or out of its own volition to seek rents (as described by the basic model). I address this challenge in Chapter 4, when I test for the presence of rent capture in the context of China's outbound FDI.

The second extreme scenario is when **the SOE has all the bargaining power**. This extreme case portrays stylistically those highly fragmented autocracies where the elite has little authority over its potential rivals. The SOE can threaten a sort of “commercial coup” if the elite fails to agree to its offer.¹⁸ In this world, the SOE will minimize the value of m (i.e. it will not share profits with the elite), setting m to zero or even negative values if permitted in the context of the model. The SOE will always demand and obtain bailouts, choose the riskier Investment B , and fulfill as little of the

¹⁸ Autocrats maintain their winning coalition through patronage, i.e., by sharing rents and spoils (BBdM et. al., 2003). For example, many of China's wealthiest SOEs are headed either by political elites themselves or their relations; their deriving benefits from positions within the regime prevents them from challenging the regime. The chief executives of China's national oil companies regularly sit on the Chinese Communist Party's Central Committee. Li Xiaolin, former premier Li Peng's daughter, the CEO of China Power International Development. Li Huidi, son of Li Changchun, former Politburo Standing Committee member, is a chief executive at China Mobile. Jeffrey Zeng, the son of the former Politburo member Zeng Peiyan, is a managing partner at Kaixin Investments, a venture-capital firm set up with two state-owned entities, China Development Bank and Citic Capital. Liu Lefei, the son of another Politburo member, Liu Yunshan, helps operate the \$4.8 billion Citic Private Equity Fund, one of the biggest state-managed funds. For more discussion on Chinese political elites' extensive involvement in state-owned as well as private industries, see “Princelings' in China Use Family Ties to Gain Riches,” The New York Times, May 17, 2012.

policy objective in x as possible.¹⁹ In this system the policy objective is extremely vulnerable to rent capture by the SOE.

In most political systems, democratic or autocratic, neither the political elite nor the SOE has absolute power over the other; the most likely scenarios are portrayed by the baseline model in Section 2.2.1 where the elite and the SOE operate under a pre-existing arrangement for m and x and only make choices about bailouts and investments. Effectively, the elite delegates a certain policy objective to the SOE; the SOE fulfills this objective and maintains some residual profit. Under this arrangement, if the political system lacks public accountability and taxpayers absorb the cost of insurance, I show that the equilibrium outcome is rent capture on the part of the SOE by taking excessive risks in the global marketplace.

2.2.3 Discussion

SOEs' Functions in the Economy

A basic premise of my model is that SOEs fulfill policy objectives. How realistic is this portrayal? SOEs are prevalent across a variety of political economic systems. In Leninist planned economies they act as the main conduit of resource allocation and economic production for the whole society. In developed markets they function in certain sectors as regulated natural monopolies and contain market failures

¹⁹ Strictly speaking the SOE would not want to produce for any loss-inducing policy objective at all, but one could argue that if the political elite gets neither rent nor public support (which is dependent on the policy objective), then the elite would not exist in the first place. So more realistically, the SOE would always choose the risky investment, get bailed out, and produce the minimal amount of x needed to prevent the public from rebelling and overthrowing the regime. The conditions for this minimal amount of x would be determined outside this model.

(e.g. energy, telecom, and rail). Regardless of the economic system, all SOEs bear some policy burden to accomplish the broader economic or political objectives of the state (Lin and Tan 1999, Davis et. al. 2012). In China, for example, SOEs are tasked with “realizing the interests of the entire country and society,” providing a micro foundation for regulating the national economy, and protecting the country’s economic security against international risks.²⁰ The Indian government describes the role of SOEs as “providing leverage to the Government (their controlling shareholder) to intervene in the economy directly or indirectly to achieve the desired socio-economic objectives and maximize long-term goals” (Davis et. al. 2012). In New Zealand, SOEs are mandated to pursue profits as their principle objective, but they are also stipulated to conduct non-commercial activities as demanded, for which they are to be compensated by the government in a contractual arrangement.²¹ In the global economy, SOEs, as instrument of economic statecraft, have been shown to adhere more closely to elite imposed trade sanctions (Davis et. al. 2012).

One reason for SOEs to be given policy perquisites is precisely that they fulfill loss-inducing policy burdens while operating commercially. These burdens include guaranteeing universal service obligations and uniform tariffs irrespective of the costs

²⁰ People’s Daily, 国有企业是社会主义市场经济第一主体, June 1, 2012. Reprinted by the State-owned Asset Supervision and Administration Commission of the State Council, <http://www.sasac.gov.cn/n1180/n1271/n20515/n2697206/14552255.html>, accessed on July 22, 2014.

²¹ The Treasury of New Zealand describes the role of SOEs as follows: “The principal objective of every SOE is to operate as a successful business and, to this end, to be as profitable and efficient as comparable businesses that are not owned by the Crown. SOEs are also required to be good employers and to exhibit a sense of social responsibility. Crown-owned companies are classified as SOEs where there are identifiable commercial functions and the entity can operate as an efficient and profitable business [...]. The State-Owned Enterprises Act 1986 recognizes that an SOE may have non-commercial roles, but requires Ministers to enter into an agreement with the SOE to pay for any goods or services that they wish an SOE to provide to any person.” Accessed July 22, 2014. <http://www.treasury.govt.nz/commercial/ownership-framework/soe/>

of provision (Forfas, 2010). For example, petroleum prices are heavily regulated in China to ensure price stability while international pricing is volatile. China's national oil companies absorb the price differential. When they incur losses, the state steps in to provide additional funding.²² My model demonstrates a generalizable case where the SOE provides a strategic good at a discount. I show that the elite providing a financial backstop to the SOE is an endogenously generated outcome that benefits both parties under a wide range of conditions. In equilibrium, the elite delegates a certain policy objective to the SOE and offers insurance; the SOE fulfills this objective, but also takes advantage of the policy perquisites to seek rents.

The SOE in my model also serves a second function: colluding with the political elite to seek rents. From this perspective preferential policies and bailouts are not just doled out in the interest of serving the policy objective, but they are also tools for rent extraction and sharing. The language "rent capture" has the connotation of benevolent political elites held hostage by SOEs, but this perception of elite naiveté is misleading. I show in my model that, depending on the elite's preference for the policy objective vs. rents, she can also be a willing accomplice of the SOE's rent-seeking. I demonstrate further that collusive rent-seeking is more likely to occur in autocracies due to the lack of public accountability. The easier it is to pass the cost of bailout to taxpayers, the more likely bailouts are to occur for the purpose of collusive rent-seeking to extract money from taxpayers.

²² This phenomenon, known as the "soft budget constraint," has been widely documented by scholars of socialist and transitional economies. See Kornai (1986) for one of the earliest discussions.

SOE vs. Political Connection

The mechanism of rent capture I describe bridges two disjoint literatures in comparative political economy. Scholars of socialist and transitional economies have investigated how state paternalism in the economy leads to the “soft budget constraint” and inefficiency (Kornai 1986, Lin and Tan 1999). In these economies the state has assumed the role of the “protector,” responsible for public welfare and national economic interests, undermining market mechanisms of efficient allocation and “natural selection” of firms (Kornai 1986). Inefficiency is the fault commonly attributed to SOEs, not rent-seeking. In contrast, the political connections literature focuses on rent seeking by private firms through their ties to political elites. The amalgamation of firms’ desire for profits and politicians’ demand for political support interferes with market outcomes. Elites trade policy perquisites for campaign contributions or political loyalty.

I demonstrate in this dissertation that the socialist view of SOEs is incomplete and that private firms do not have exclusive rights to rent-seeking. Modern SOEs, particularly those in transitional economies where public accountability is low, are just as motivated to seek rents as the next firm. Furthermore, their instrumental role with respect to political elites gives them significant leverage in extracting rents. Most transitional economies are partially liberalized, meaning that the state continues to intervene heavily in the marketplace without being able to exert complete control (having the elite dictate every investment an SOE makes is unthinkable in most economies today). This hybrid approach is precisely the condition under which my model produces the result of rent capture. The state is dependent on the SOE to intervene in the economy, but the SOE also preserves a certain degree of autonomy,

giving it the incentive as well as the ability to capture rents. In my model, the SOE may continue to be inefficient, but it is now also hungry for rents.

Information Asymmetry Between Elite and SOE

My model assumes complete information in the equilibrium result of rent capture; we do not need to assume any ignorance on the part of the elite for rent capture to occur. In my model, the elite is fully aware that, by offering the SOE insurance, the SOE will take excessive risks. Yet she still offers insurance in equilibrium. Intuitively, this happens because the elite is dependent on the SOE either to fulfill policy objectives or to seek rents on her behalf.

In reality, the elite and SOE interaction is further complicated by information asymmetry. Returns on Investments A and B in the model may be the private knowledge of the SOE. The elite could have poor information on how much the SOE really loses in the bad state of the world (i.e. the true value of r_L) or she might not even know which state of the world actually occurred (i.e. the status of the civil war where Investment B is located). This gives the SOE an incentive to exaggerate losses. The elite's ignorance both makes bailouts more likely and the amounts involved greater (the bailout amount b can exceed the true r_L), and the SOE captures more rents in the process. Again, autocracies are more susceptible to such devious behavior by an SOE due to a lack of independent monitoring and public scrutiny. Chinese SOEs, for example, are administered directly by a special commission of the State Council (State-owned Asset Supervision and Administration Commission, a.k.a. SASAC) and subject

to frequent inspections, but the incentives of SASAC itself are questionable, since the commission is merely another state agent free from public oversight.

Note also that the presence of information asymmetry is particularly likely for foreign investments as compared to domestic investments. Information on foreign assets is more difficult for the elite to obtain. Further, the SOE can potentially evade responsibility for a low return on foreign investments since the state of the world is more easily argued to be beyond its control. The elite, lacking information, can therefore be even more easily led to bail out the SOE.

2.3 Chapter Summary

In this chapter I have developed two models to illustrate the FDI behaviors of SOEs, particularly SOEs from autocracies. I have presented a general framework for understanding the interaction of firms and the home state in the context of outbound FDI and how state preferences may (or may not) translate into firm-level outcomes. Building on Helpman, Melitz and Yeaple (2004), I first demonstrate that political elites can manipulate firms' propensity to invest overseas by providing firms with policy incentives. By privileging SOEs with these policy incentives, SOEs can be encouraged to carry out investments according to elite preferences. In the second model, I demonstrate that, when the political elite is dependent on the SOE to carry out investments according to her agenda, SOE's obtaining preferential access to policy incentives is precisely the equilibrium outcome of the game. I also show that, because an SOE can count on these policy perquisites from the elite (e.g. the elite bailing out the

SOE out when it makes a poor investment), the SOE will take on excessive risks when investing overseas in pursuit of rents, subverting the state objective. I call this phenomenon rent capture and explore the various conditions under which it occurs. I find that rent capture is more likely to occur when the political elite can easily pass on the cost of bailouts to the public, when the SOE has significant bargaining power over the elite, and when the elite has incomplete information about the SOE's investment activities. In addition, I show that, when public accountability is low, the elite and the SOE are more likely to engage in collusive rent-seeking to extract money from taxpayers via bailouts.

In the next chapters, I will test empirically some of the theoretical predictions I make above and explore their implications in the context of Chinese outbound FDI. In Chapter 3, using firm-level data from China, I establish empirically that elite preferences, not just productivity, predict Chinese firms' propensity to invest overseas in a given industry. In Chapter 4, I test for the presence of rent capture by investigating Chinese SOEs' vs. private firms' differential sensitivities to host country risks, controlling for state preferences. A direct implication of my theory is that Chinese SOEs are less sensitive to host country risks, even to the point of becoming risk-seeking. Finally, I explore the implications of Chinese SOEs' greater appetite for risks on host country development and international security in Chapter 5.

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Chapter 3

Who Goes Out? Who Stays?

In Chapter 2 I build on two workhorse models in international political economy (Melitz 2003; Grossman and Helpman 1994) to develop a general theory that explicates the interactions between firms and home governments in the context of outbound FDI. The first model incorporates policy distortions into Helpman Melitz and Yeaple (2005), demonstrating that the state can alter firms' propensity to invest overseas by manipulating the relative costs of establishing operations domestically versus overseas. Recall that the driving puzzle of this dissertation is whether state preferences or market forces shape the behaviors of China's multinational corporations. What I show with this model is that firms do not need to be immune from profit incentives to implement state objectives. In this model, state-owned enterprises are assumed to be profit maximizing. The elite is able to regulate its behavior not through political command, but by manipulating market mechanisms with distortionary policies.

This hybrid perspective on the drivers of FDI generates a pair of general predictions: (1) Productivity is a determinant of a firm's propensity to invest overseas in a given sector; this reflects the force of the market. (2) Controlling for productivity, elite preference predicts the behavior of firms; this reflects elite intervention through preferential policies. In this chapter I test these predictions empirically with previously unexplored firm-level data on Chinese outbound investments and find evidence consistent with the predictions. I take advantage of heterogeneity in firm ownership and

sectoral heterogeneity in state preference to capture the impact of state preference on firm-level FDI. First, I find that productivity does influence which Chinese firms invest overseas in a given sector. Second, I show how heterogeneity among firms mediates these decisions; productivity only predicts a part of investment behavior. Specifically, I find that SOEs, reflecting the preferences of the state, exhibit investment propensities that differ from those of private Chinese firms. In the natural resource sector, where the state's preference is to seek supply overseas, SOEs are more likely than private firms to invest overseas, controlling for productivity. In the manufacturing sector, where the government's top priority is to sustain high levels of local production, SOEs are less likely to invest overseas. Consistent with a hybrid approach, China's FDI is both dependent on market dynamics and also fine-tuned by the state's visible hand to accomplish state goals.

3.1 State Objectives in China's Outbound FDI

To empirically test for the manifestation of state objectives in China's outward FDI, I leverage two sources of heterogeneity. First, state preference varies by sector. Second, state objectives are disproportionately delegated to SOEs. In this section I describe how these two sources of heterogeneity apply to China.

Policy documents identify several rationales for the Chinese state's push for outward FDI: (1) to secure natural resources overseas; (2) to diversify China's large foreign currency reserve, and (3) to build national champions. Among these rationales, overseas resource development was not only one of the earliest and most enduring

priorities, but also an explicitly sectoral priority.¹ The emphasis on the natural resource sector is not surprising given the government's growing concern over energy security. China is currently the world's second-largest consumer of oil and projected to become the largest within two decades. In 2014 China depended on imports for 60% of its oil consumption, the majority of which came from the Persian Gulf, and overtook the U.S. to become the world's largest net importer of oil. Dependence on imports not only rose dramatically for oil, but for minerals as well. Between 2002 and 2008 China's increased imports accounted for 61% of the increase in iron ore trade, 45% for lead ore, 31% for nickel ore and 29% for copper ore.² Annual iron ore import rose from 14m tons in 1990 to 444m tons in 2008, a thirty-one fold increase in eighteen years.³

Many Chinese leaders believe that exposure to international markets leaves China's resource supply vulnerable. Some senior politburo members believe that overseas investment is a better way to ensure that China's energy needs are met than reliance on trading alone. The greater the control Chinese oil companies have over overseas oil, the greater the security of supply. In 1997, Zhou Yongkang, then president

¹ At the inauguration of the "Go Out Strategy" at the 5th Plenum of the 15th Party Congress, natural resource development was declared to be one of three focal areas for the following five years; the other two were BOT projects (对外承包工程) and External Processing Trading (境外加工贸易) to promote the export of intermediate products. See full text at "中共中央关于制定国民经济和社会发展第十个五年计划的建议" available at <http://cpc.people.com.cn/GB/64162/71380/71382/71386/4837946.html>. Chapter 52 of China's 12th Five-Year Plan lists developing overseas resources as the top component of the Go Out strategy. The full text of the plan is accessible at http://www.gov.cn/node_11140/2006-03/15/content_227686.htm (accessed on July 10, 2014). In 2003 the National Development and Reform Commission (NDRC) and China Export and Import Bank (EXIM) jointly released the priorities for preferential loans to support Going Out. The first priority was natural resource development projects, followed by infrastructure.

² Farooki, Masuma. "China and mineral demand – more opportunities than risks?" POLINARES EU Policy on Natural Resources Working Paper n. 75, December 2012. http://www.polinares.eu/docs/d5-1/polinares_wp5_chapter5_4.pdf

³ 杜正艾, 从铁矿石谈判受挫看我国的资源安全问题, <http://old.globalview.cn/ReadNews.asp?NewsID=18763>

of CNPC, stated that “overseas exploration and development is a better way for China to achieve a stable oil supply because oil price fluctuations make oil imports a high risk” (Downs, 2000).⁴ Similarly in minerals, it is believed that upstream investments would ensure lower and more stable prices than arms length transactions with suppliers. In iron ore, for example, China has long perceived itself to be at the mercy of major overseas producers.⁵ In addition to calls for pricing reform and launching a set of China-specific futures contract,⁶ investment in iron ore mines is deemed an important step in establishing China’s “iron ore security system.” According to the Ministry of Industry and Information Technology, China aims to supply at least 45% of its iron ore directly and obtain mining rights to at least 50% of its imports by 2015.⁷

⁴ Downs, Erica Strecker. *China’s Quest for Energy Security*. Santa Monica, CA: RAND Corporation, 2000. http://www.rand.org/pubs/monograph_reports/MR1244.

⁵ BHP Billiton, Rio Tinto, and Vale together produce two-thirds of the world’s traded iron ore (Financial Times, October 18, 2013). Until the reform in 2010, the international iron ore market sustained a benchmark pricing system, where prices are set annually in secret negotiations between steelmakers and miners. Typically the first price deal, usually between Nippon Steel of Japan or Baosteel of China, on the one side, and the Australian miners on the other, would set the price for the rest of the industry (Financial Times, February 21, 2013). Baosteel, representing China’s steelmakers, has participated in the negotiations since 2003 with “unsatisfactory results,” occupying a “disadvantaged position” and “lacking voice (*huayuquan*).” (杜正艾, 从铁矿石谈判受挫看我国的资源安全问题, <http://old.globalview.cn/ReadNews.asp?NewsID=18763> 谭浩俊, 中国在铁矿石谈判中何无话语权, http://www.china.com.cn/news/comment/2010-01/04/content_19173936.htm). In 2014 the National Development Reform Commission recently stated that BHP Billiton and the other main iron ore suppliers “should not abuse their dominant market position,” (Financial Review, September 4, 2014, <http://www.afr.com/markets/commodities/china-calls-iron-ore-pricing-into-question-20140903-jdr8t>). However, how much “disadvantage” China actually suffers is debatable, given that prices have been on a steep decline and proved highly responsive to changes in relative supply and demand (Financial Review, September 4, 2014).

⁶ China launched its own futures contract in iron core in 2013. The yuan-denominated contract, to be traded on the state-owned Dalian Commodity Exchange, is designed to help domestic buyers protect themselves against price swings and leave China less affected by prices in markets elsewhere (The Wall Street Journal, October 17, 2013).

⁷ 经济参考报, 铁矿石保障纳入“十二五”规划, November 7, 2011.

http://news.xinhuanet.com/fortune/2011-11/07/c_122243392.htm. “铁矿石资源保障能力建设关系到我国钢铁工业能否持续健康发展, 有必要上升至国家层面的高度。”出席 2011 中国国际矿业大会的骆铁军表示。

Ultimately China's political elites are concerned about stability, which hinges on economic growth and employment generation. This concern manifests differently for different economic sectors. For the natural resource sector, which operates upstream, the state objective is to ensure stable and cheap supply to fuel domestic economic growth. There is clear language in China's policy discourse that indicates an explicit push to invest in natural resources overseas. For downstream sectors such as manufacturing, although the state also pushes these firms to internationalize, the root concern is to generate employment at home. The "external processing trading" promoted in the early days of China's Go Out strategy, for example, was a form of overseas manufacturing investment meant to stimulate demand for intermediate products produced in China. Partly in response to the textile quotas, China's textile industry accounted for over 30% of such processing trade through the mid 2000s.⁸ This strategy was largely to find outlets for intermediate inputs manufactured in China even though, due to trade restriction, the final garments could not be assembled in China for the overseas market.

As Chapter 2 explains, state-owned enterprises, by design, are disproportionately delegated state objectives and policy burdens. This characterization is particularly fitting for China, where SOEs are tasked with "realizing the interests of the entire country and society," providing a foundation for regulating the national economy and protecting the country's economic security against international risks.⁹ The thinking is

⁸ 中国纺织工业联合会, 中国纺织工业发展点评, http://www.ccpit.org/Contents/Channel_2212/2008/0711/120008/content_120008.htm

⁹ People's Daily, 国有企业是社会主义市场经济第一主体, June 1, 2012. Reprinted by the State-owned Asset Supervision and Administration Commission of the State Council).

that, in the event of another oil shock, the Chinese government will be able to pressure state-owned oil companies to forgo profits from higher international oil prices by requiring them to supply Chinese industries at artificially low prices, cushioning the impact of the shock on China's economy (Downs, 2000). While NOCs are dominant in China's oil and gas sector, the ownership structure is more diverse in iron ore and other minerals. Outside the oil and gas sector, private capital holds nearly half of exploration rights and owns 90% of mining sites in China.¹⁰ However, SOEs are still entrusted to provide industry-wide public goods. For all but one year, Baosteel was delegated the task to negotiate international benchmark pricing in iron ore on behalf of China's steelmakers.¹¹

In terms of domestic employment, and in spite of years of enterprise reforms, the state has been hesitant to relieve SOEs of their traditional roles as guarantors of job security and welfare of their employees (Dong and Putterman, 2003). Vice Premier Zhu Rongji emphasized in a 1997 speech that the problem of excess workers in SOEs should not be resolved through massive layoffs (Bai et al., 2000). Maintaining high employment in the state sector has been the major concern of the central government during the entire reform era (Li, 2007).¹² Even as China increasingly battles industrial overcapacity and environmental deterioration today, local governments find it difficult to shut down surplus steel mills and chemical plants across the country. SOEs are often

¹⁰ 新华网, 数据显示民间资本持有非油气探矿权占比近半, November 4, 2012. Reprinted by Sina Finance, <http://finance.sina.com.cn/china/20121104/150113571056.shtml>

¹¹ In 2009, the negotiation was completed by China Steel Association, 中钢协

¹² <http://down.cenet.org.cn/upfile/43/200991122536106.pdf>

under pressure to acquire struggling plants, particularly when the local workforce, dissatisfied with an impending layoff, threatens a visit to Beijing.¹³

To summarize, the elite's overwhelming concern for growth and stability at home fuels diverging preferences across sectors for outward FDI. For the resource sector, the pressure is to secure ownership over foreign supplies. For manufacturing, local exigency for employment prevails. To the extent SOEs are disproportionately burdened with these non-market objectives, we should expect that SOEs possess different propensities for overseas investments than private firms, and that the direction of this difference depends on the economic sector. In the next section I leverage this heterogeneity to empirically disentangle the market vs. state centric views of China's outward FDI.

3.2 State-Centric or Market-Centric? Testable Hypotheses

The state centric and market centric views have distinct implications for the predictive leverage of firm-level productivity on Chinese outbound FDI. If, as the HMY model portrays, the home government plays no role in shaping FDI, then productivity should predict which firms invest overseas in a given sector. However, if investment is dictated completely by political command of the Chinese elite, then productivity will not be a strong predictor of firms' propensity to venture overseas.¹⁴ If

¹³ Interview 04122015. See also 民生周刊, 2014 年第 9 期, 产能过剩沉疴求医, http://paper.people.com.cn/mszk/html/2014-04/28/content_1421988.htm

¹⁴ One could contend that productivity may still be predictive if the elite has the knowledge, capability, and incentive to rank order and cherry pick the more productive firms to carry out its agenda. However, if the experiences of many command economies in the past are any guide, it is extremely difficult if not impossible for a social planner to arrive at the optimal allocation of a free market (Lin and Tan 1999).

Chinese investments are driven by a hybrid approach as I postulate in this dissertation, then productivity should predict firm behavior, but state preferences will also matter.

First, to identify the presence of market mechanism, I test the following hypothesis:

Hypothesis 1: In a given sector, more productive firms invest overseas.

Second, in order to differentiate my hybrid view here from the firm autonomy view, I will also need to evaluate whether state preferences predict firm behavior. As the previous section explains, the preference of the state should manifest differently in different sectors of the economy. China's outward FDI is governed by a set of coordinated policies known collectively as the "Go Out" strategy. The Go Out strategy maintains a strong focus on energy security and natural resource development. The strategy takes the form of policy campaigns, deregulation, targeted support (subsidies, low-interest loans), as well as bilateral treaties and agreements to facilitate Chinese outbound investments. SOEs, bearing policy goals in their official capacity, are more likely than private firms to obtain policy perks associated with outbound FDI (CCPIT, 2013). China's policy banks have supported numerous oil and minerals investments by state companies overseas (Downs 2011, Moran 2010). These policy perks essentially correspond to s_I , presented in the model in Section 2.1.2, which moderates the link between firm-level productivity and propensity to invest overseas.

In the manufacturing sector, the government's incentive is to maintain local production and employment. As such, SOEs are often given an advantage over private companies in the domestic market. SOEs have continuous access to preferential financing regardless of repayment concerns (Hericourt and Poncet 2008, Cull and Xu

2003, Lin 2011). Further, China's SOEs are frequent targets of recapitalization by China's state banks: their service to state policies is often cited as reason for the bailout. As Steinfeld (2000) notes, "Chinese state firms to this day neither go out of business nor find themselves subject to credit provision on anything resembling commercial standards." Coddled with preferential policies, SOEs have been found to advance at the expense of China's private sector (Yang and Jiang, 2012). These policy perks associated with domestic operations essentially correspond to s_D , presented in the model in Section 2.1.3, which moderates the link between firm-level productivity and propensity to invest overseas.

Taken together, the instrumental value the SOEs provide the political elite and the political elite's different priorities in different sectors generate the following pair of empirical predictions:

Hypothesis 2: Controlling for productivity, SOEs are more likely to invest abroad in the resource sector.

Hypothesis 3: Controlling for productivity, SOEs are less likely to invest abroad in the manufacturing sector.

3.3 Data

I test my hypotheses using two novel sources of firm-level data from China. One is an original dataset on Chinese OFDI compiled from the registry of China's Ministry of Commerce (MOFCOM) which catalogues all officially approved and archived outward investment projects. As of October 2012, this registry contained

21,054 projects by 14,634 Chinese companies. The other is the China Stock Market Analysis and Research (CSMAR) database, which provides operational data (revenue, costs, etc.) on a cumulative total of 844,039 firms (both listed and unlisted companies) between 1998 and 2009. Scholars in business and finance have used the CSMAR database extensively, but the source has been underutilized in the study of political economy.

3.3.1 MOFCOM Certificate Data

The MOFCOM registry provides relatively comprehensive coverage of Chinese outbound investments due to China's internal rules regulating outward investors.¹⁵ China's capital markets are tightly controlled. To access foreign exchange through official channels, companies regardless of ownership must file an application with MOFCOM.¹⁶ The MOFCOM registry is a publicly searchable database. Though not downloadable, the relatively simple structure of the database makes it possible to extract with a web crawler. Data included in this paper cover projects that were filed through April 2012, shortly before when the crawler was last applied. The earliest project documented in the database was in 1983, when China International Water and Electric Corporation (a central SOE) established its representative office in Nepal, and

¹⁵ Firm-level international investment data are scant to begin with, and are even scarcer when it comes to investments originating from China. Analysts mainly rely on sources such as the Heritage Foundation's China Global Investment Tracker (CGIT) or commercial databases such as fDimarkets.com. The drawback of CGIT is that it only tracks investments over \$100m, which biases the sample heavily toward large-scale projects in energy, mining, and infrastructure. fDimarkets.com reportedly covers over 80% of cross-border transactions in the world, but it relies heavily on media reports and also runs the risk of bias toward large, high-profile projects.

¹⁶ After 2005, investments under a certain amount no longer need to apply for approval, but they are still required to "authenticate" (*he zhun*) their projects with MOFCOM before they can obtain a certificate allowing access to foreign exchange.

the last ones were a total of thirty-two projects registered on April 28, 2012. There are a total of 21,054 projects made by 14,634 companies recorded in the registry. Each record contains the approval date, destination country, and a description for the project. Using automatic algorithms as well as extensive cross-validation with manual assignments, I code project descriptions into industry categories consistent with those used by the China National Bureau of Statistics. Appendix 3A provides a detailed description of the coding process. The registry also provides information on whether the company is a central SOE (or the subsidiary of a central SOE). The trade-off, however, is that the amount of the investment is not provided, but this does not severely constrain this study since I am primarily interested in firms' choice to invest overseas rather than the size of the investments. Arnold and Hussinger (2005), for example, models firms' export decision with a Logit specification. A second caveat is that the data only account for project approval and not implementation. Some of the projects listed in the database may never come to fruition. Again, my research is relatively unaffected because I focus on the decision to invest rather than its implementation and impact.¹⁷

Table 3.1 shows a breakdown of all projects by industry and by firm ownership status. Not surprisingly, China's central SOEs have a notably different sectoral focus than other Chinese companies: they are more heavily invested in natural resources,

¹⁷ A related concern is that the certificate date does not equate application date and perhaps private companies encounter longer delays. One mitigating fact is that the official limit on the waiting period is five weeks, short enough that it is unlikely to significantly alter my results. In addition, I also test my findings in annual count models, which depend much less on a precise measure of time. Finally, there may be concerns with under counting. Anecdotally, small private investors in China tend to skirt the official approval and archiving process. However, this is more likely to occur in small scale manufacturing than resource investments, in which case the omission would only bias against finding my result.

reflecting the emphasis of the “Go Global” strategy. Interestingly, although China’s large-scale energy investments have attracted the most attention, Chinese investments in manufacturing and services are far greater in terms of the number of projects.

Table 3.1: Distribution of Outbound Investment Projects

Primary industry or activity	Central SOEs		Other companies	
	Number of projects	Percentage of SOE projects	Number of projects	Percentage of other projects
Agriculture, fisheries, and forestry	155	9.4	1,043	5.4
Oil, gas, and mineral extraction	166	10.0	1,291	6.7
Manufacturing	64	3.9	2,602	13.4
Utilities	20	1.2	36	0.2
Construction	242	14.6	647	3.3
Transportation and logistics	81	4.9	506	2.6
Information technology	22	1.3	346	1.8
Trade	298	18.0	7,541	38.9
Hospitality	2	0.1	97	0.5
Finance	4	0.2	11	0.1
Real estate	11	0.7	250	1.3
Business services	510	30.9	4,514	23.3
Research and technical services	74	4.5	456	2.4
Other	0	0.0	15	0.1
Entertainment and culture	3	0.2	47	0.2
Total number of projects		1,652		19,402

Source: MOFCOM Registry.

3.3.2 The CSMAR Database

Data for my firm-level covariates of interest come from the China Stock Market Analysis and Research (CSMAR) database, an academic database available through major Chinese universities and frequently used by business and finance scholars. CSMAR compiles firms’ ownership status, industry, annual revenue, assets, profits, and

other basic operational data for listed and unlisted Chinese companies based on information obtained from company annual reports, the China Statistics Bureau, and various trade associations. While generally complete for larger companies, data for some companies is not reported every year (particularly in very early years of the sample) so I work with the unbalanced panel. In total, I have approximately 3 million company-year records for an eleven-year period from 1998 to 2009, overlapping nicely with the period during which the majority of Chinese OFDI is made. For the subset of listed firms the panel is complete over a wider range, covering 1984-2012.

Because CSMAR only covers certain sectors for unlisted companies, namely manufacturing, resources (including oil, gas, and mining) and municipal utilities, I focus on two sectors in particular: resources and manufacturing (I exclude municipal utilities from the analysis). In addition, only companies with annual revenue over 5 million RMB are included.

In addition to the revenue variables available directly in the data I also construct measures of labor productivity (as revenue per worker) and total factor productivity (TFP). For a simple TFP measure I follow Yeaple (2008), taking TFP as the residual of the regression of the logarithm of output per worker (YPC) on the logarithm of capital per worker (KPC) and the logarithm of the number of workers (W). That is, I use data for each firm i and year t to estimate $\ln(YPC_{it}) = \beta_0 + \beta_1 \ln(KPC_{it}) + \beta_2 \ln(W_{it})$ and then measure TFP as the residual: $TFP_{it} = \ln(YPC_{it}) - \ln(\widehat{YPC}_{it})$.

Table 3.2 presents summary statistics (means and standard deviations) by year for the key variables used in my analyses. The first thing to note is that the database has

good coverage of both central and provincial SOEs, which is a distinct advantage over most survey data.¹⁸ Although the fraction is somewhat lower, a significant number of private enterprises do work in the resource sector alongside SOEs. Consistent with expectations, the number of SOEs has declined to less than a quarter of their presence in 1998 while the average revenue per (remaining) SOE increases nearly five fold. Private enterprises have grown significantly in number, though growth in revenue is moderate. On average private enterprises also have a higher level of productivity than SOEs, suggesting that, absent state intervention, China's private companies should have a higher propensity to expand overseas.

To identify which companies have invested abroad, I merge the MOFCOM Certificate Data and the CSMAR database using company names and provinces. One company in CSMAR may match with several certificates in the MOFCOM database across different years or even within the same year. The telecom giant Huawei, for example, has obtained certificates for 75 different countries. However, the vast majority of companies in MOFCOM's database have only filed for one certificate. The details of the merging process are provided in Appendix 3B. In 2009, 0.98% of firms in CSMAR had at least one matching certificate in the MOFCOM database. This percentage is slightly higher than that in other major economies, but this is not unexpected since the denominator includes only firms with annual revenue over 5 million RMB (the threshold for inclusion in the CSMAR database). For comparison, the percentage of U.S. firms that invest overseas is estimated be approximately 1%

¹⁸ The number of centrally owned enterprises is many times greater than what is listed under the State Owned Assets Supervision and Administration Commission (SASAC) because the database also includes their subsidiaries and treats them as separate entities.

Table 3.2: Summary Statistics for Firm-Level Covariates (CSMAR)

Ownership	Year	Frequency	Total revenue	Labor productivity	TFP	Fraction resources
			100m Yuan	1m Yuan/person	Z score	
Private	1998-2001	107,335	0.490 (2.07)	0.224 (0.4)	-0.320 (0.89)	0.033
	2002-2005	193,412	0.664 (2.71)	0.327 (0.5)	-0.033 (0.89)	0.035
	2006-2009	329,170	0.895 (3.13)	0.546 (0.8)	0.336 (0.88)	0.043
All SOE	1998-2001	32,530	0.514 (2.80)	0.087 (0.2)	-1.451 (1.26)	0.069
	2002-2005	15,901	1.287 (5.46)	0.165 (0.4)	-0.985 (1.32)	0.092
	2006-2009	7,727	2.630 (8.28)	0.397 (0.7)	-0.113 (1.19)	0.126
Central SOE	1998-2001	2,808	2.200 (7.71)	0.129 (0.3)	-0.991 (1.17)	0.057
	2002-2005	2,246	3.318 (9.48)	0.233 (0.5)	-0.525 (1.21)	0.045
	2006-2009	1,497	5.378 (11.85)	0.521 (0.9)	0.232 (1.14)	0.054
Local SOE	1998-2001	29,817	0.388 (1.98)	0.085 (0.2)	-1.490 (1.26)	0.070
	2002-2005	13,703	1.021 (4.61)	0.156 (0.4)	-1.050 (1.33)	0.099
	2006-2009	6,294	2.118 (7.33)	0.377 (0.7)	-0.182 (1.20)	0.142

Source: CSMAR database.

while the percentage of Indian firms is estimated to be 0.2%.¹⁹ In the other direction, 34% of records in the MOFCOM registry are matched in the CSMAR data. This percentage also appears to be reasonable, considering that the CSMAR data only include firms in the resource and manufacturing sectors whereas the MOFCOM registry includes overseas investments in all sectors. By project count, resource and manufacturing projects make up 18% of the MOFCOM registry.

3.4 Models and Results

I test my hypotheses in two ways, first estimating a duration model on a firm's time to first investment and then a negative binomial model on the total count of investments. The results corroborate one another.

3.4.1 Duration Model

I begin with a duration/survival model to test my hypotheses. Figure 3.1 displays the raw survival estimates (Kaplan-Meier) for SOEs vs. private companies in the resource and manufacturing sectors. These survival estimates measure the probability of a firm still not having invested abroad at the time measured on the horizontal axis. Starting the plot from 1998 creates only a small number of cases of left censoring (a few firms have already invested abroad prior to 1998). For robustness I also perform the analysis accounting more fully for the entry of firms during the model

¹⁹ See McKinsey Global Institute, "Growth and Competitiveness in the United States: The role of its multinational companies," June 2010. See address by Shri H R Khan, Deputy Governor of the Reserve Bank of India, at the Bombay Chamber of Commerce & Industry, Mumbai, 2 March 2012. Transcript available at <http://www.bis.org/review/r120306a.pdf?frames=0>, access on August 22, 2014.

period, constructing the duration from the later of the firm's establishment date or 1998. The results are robust to this approach.

Figure 3.1 shows that, consistent with my expectation above, for the manufacturing sector private firms have a much shorter duration to their first investment abroad than SOEs. Private manufacturing firms in fact have the highest probability of having invested abroad of all four types shown. Also consistent with my arguments above, the opposite result appears in the resource sector: SOEs are more likely to invest abroad than private companies. However, the patterns in the figure do not yet take into account any covariates. It is possible that, after controlling for productivity, differences across ownership types will no longer be apparent.

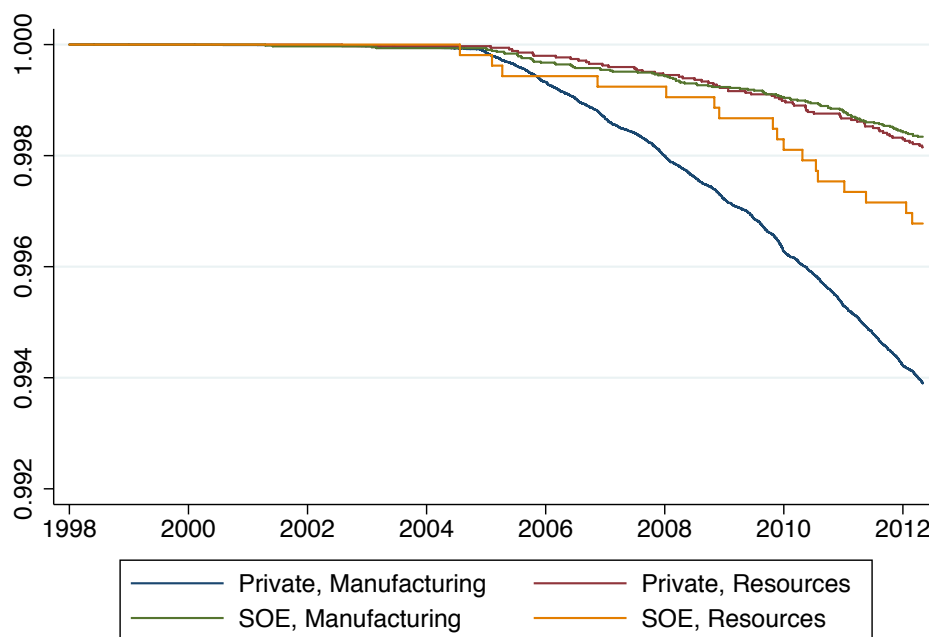


Figure 3.1: Kaplan-Meier Survival Estimates for SOEs v. Private Companies by Sector

In order to account for this dimension I next specify a Cox proportional hazard model to test the effect of my two key independent variables, firms' ownership status and productivity, on their probability of investing. In this specification I am also able to control for firm revenue. I run the model separately for the resource and manufacturing sectors to allow full flexibility in the coefficients; for example the influence of revenue and productivity can differ freely across sectors. A key advantage of the Cox proportional hazard model is that it does not make assumptions about the form of the underlying hazard function (although this does require assuming a constant effect of the covariates over time). I can therefore test very simply whether ownership status or changes in productivity have an effect (expressed multiplicatively) on a firm's probability to invest. I estimate the model using time invariant covariates to reduce computational time. I collapse the values for firm revenue, productivity, and subsidy across years by taking a simple average. For ownership I take the predominant status (the mode) over the study period.

The results of this model appear in Table 3.3. For easier interpretation, I have normalized the explanatory variables such that every one-unit increase represents an increase of one standard deviation. The hazard ratios here are coefficients that multiply the probability of investing (i.e. a coefficient greater than 1 increases the probability of investing). The results in Table 3.3 are rather striking. The first thing to note is that TFP is positively associated with firms' decisions to invest abroad, confirming the theoretical prediction of the HMY model and suggesting that market mechanisms do underlie Chinese overseas investments. Every standard deviation increase in a firm's TFP increases its probability of investing by almost three times in the resource sector,

Table 3.3: Relative Investment Hazard by Sector for SOEs Versus Private Firms

VARIABLES	(1) Resource	(2) Resource	(3) Resource	(4) Manufacturing	(5) Manufacturing	(6) Manufacturing
Is SOE	3.635*** (1.127)			0.568*** (0.0576)		
Is Central SOE		6.538*** (3.503)			0.697* (0.146)	
Is Local SOE			3.718*** (1.254)			0.539*** (0.0616)
Revenue	1.030*** (0.00508)	1.023*** (0.00663)	1.062*** (0.00656)	1.037*** (0.00165)	1.036*** (0.00178)	1.037*** (0.00166)
TFP	2.858*** (0.303)	2.760*** (0.330)	2.763*** (0.309)	1.945*** (0.0309)	1.916*** (0.0311)	1.942*** (0.0310)
Observations	37,841	33,278	37,469	743,466	692,267	737,749

Coefficients from Cox proportional hazard model expressed as ratios. Values greater than one indicate a higher investment hazard for the variable shown at left. Values less than one indicate a lower investment hazard. Significance is indicated using *** p<0.01, ** p<0.05, * p<0.1.

and almost two times in the manufacturing sector. Every standard deviation increase in revenue increases the likelihood of investing by 2-6% for both sectors. However, the effect of firm ownership status is arguably even stronger, and demonstrates opposite effects in the two sectors. In the resource sector, centrally owned enterprises have a probability of investment that is more than six times larger than private firms in the same sector, even after controlling for both productivity and firm size. The effect for SOEs overall is weaker but still large. Being an SOE makes one almost four times as likely to venture abroad. Consistent with my expectations, the effect of ownership status on outward investments is just the opposite in the manufacturing sector: Being a central SOE or any SOE in the manufacturing sector decreases one's probability to go out by 30% and 45% respectively.

3.4.2 Negative Binomial Model: Tests Using Counts of Investments

I now test my main hypotheses in a negative binomial model, using data on the counts of investments made and controlling for the same set of covariates. Unlike the Cox Proportional Hazard model, where a firm drops out of the sample as soon as it has made its first overseas investment, a count data model can consider the number of certificates a company obtains in every year during the analysis period. The choice of the negative binomial is appropriate because outward investments are "rare events," meaning that only a very small fraction of firms in the sample take the plunge to go abroad. In addition to the covariates, I can also include year dummies in this form of the estimation, flexibly accounting for any changes through time that affect all firms

together. Finally, I estimate the negative binomial model with both time invariant covariates (as above in the proportional hazard model) and also now with time varying covariates. The key results are robust across both specifications.

The estimates are presented in Table 3.4 (time invariant covariates) and Table 3.5 (time varying covariates). They are consistent with results from the hazard model, except that the effect appears even stronger for central SOEs in the resource sector. Note that TFP is again found to positively correlate with firms' decisions to invest abroad in both sectors, but productivity is far from explaining the full picture. Table 3.4 shows that being a central SOE makes the firm thirteen times more likely to invest in the resource sector (when other covariates are held at their mean values), while the effect of being a local SOE makes investment only 1.4 times more likely. In the manufacturing sector, being a central SOE makes one 56% less likely to invest abroad. Being a local SOE makes one 58% less likely. In the time varying version, Table 3.5, being a central SOE in the resource sector makes the firm nearly nine times more likely to invest abroad, whereas the effect of being a local SOE makes investment 1.2 times more likely. In the manufacturing sector, central SOEs are 52% less likely to invest overseas and local SOEs 58% less likely.

3.5 Discussion and Chapter Summary

Modifying Helpman, Melitz, and Yeaple's (2004) model of firm-level heterogeneity in international trade and FDI, I incorporate the preference of home country elites into determinants of FDI outflow. I demonstrate that home political elites

Table 3.4: Negative Binomial Model (Time Invariant Covariates)

Sector	(1) Resources	(2) Resources	(3) Resources	(4) Manufacturing	(5) Manufacturing	(6) Manufacturing
State-owned						
Coefficient	1.278*** (0.337)			-0.861*** (0.103)		
Effect at mean (proportion)	2.71			-0.58		
Central SOE						
Coefficient		2.540*** (0.486)			-0.857*** (0.247)	
Effect at mean (proportion)		13.07			-0.56	
Local SOE						
Coefficient			0.833** (0.401)			-0.879*** (0.112)
Effect at mean (proportion)			1.39			-0.58
Revenue						
	0.613*** (0.133)	0.377*** (0.123)	0.569*** (0.135)	1.853*** (0.0925)	1.891*** (0.0982)	2.027*** (0.0990)
TFP	1.067*** (0.125)	1.051*** (0.129)	1.011*** (0.127)	0.613*** (0.0191)	0.599*** (0.0195)	0.601*** (0.0192)
Year fixed effects	yes	yes	yes	yes	yes	yes
Observations	417,335	360,328	412,937	8,298,070	7,652,916	8,228,615

Table 3.5: Negative Binomial Model (Time Varying Covariates)

Sector	(1) Resources	(2) Resources	(3) Resources	(4) Manufacturing	(5) Manufacturing	(6) Manufacturing
State-owned						
Coefficient	1.055*** (0.341)			-0.835*** (0.100)		
Effect at mean (proportion)	1.98			-0.56		
Central SOE						
Coefficient		2.150*** (0.527)			-0.767*** (0.231)	
Effect at mean (proportion)		8.65			-0.52	
Local SOE						
Coefficient			0.769** (0.376)			-0.870*** (0.110)
Effect at mean (proportion)			1.23			-0.58
Revenue						
Coefficient	0.336*** (0.0626)	0.261*** (0.0616)	0.296*** (0.0586)	0.679*** (0.0335)	0.723*** (0.0369)	0.757*** (0.0365)
TFP	0.890*** (0.122)	0.872*** (0.127)	0.889*** (0.120)	0.578*** (0.0181)	0.557*** (0.0186)	0.562*** (0.0183)
Year fixed effects	yes	yes	yes	yes	yes	yes
Observations	417,358	360,612	412,929	8,298,203	7,658,286	8,228,412

can devise policies that alter the relative costs firms face when operating overseas vs. domestically, thereby encouraging profit-maximizing firms to invest or not invest overseas according to the preferences of the state. The uneven application of these distortionary policies within a sector generates a second source of firm-level heterogeneity in addition to productivity, the latter being the usual economic explanation for why some firms invest overseas while others remain at home. To the extent state-owned enterprises are agents for accomplishing state goals, the observable differences between SOEs' investment behaviors and those of private firms, controlling for productivity, signal the preference of the state.

In this chapter I empirically test the modified HMY model with firm-level data on Chinese outward FDI. I find that patterns in Chinese FDI adhere closely to my model of elite intervention. Political elites in China have differing priorities in the natural resource vs. manufacturing sectors. In natural resources the priority is to ensure supply globally, whereas in manufacturing the priority is to ensure domestic employment and revenue streams. Consistent with these priorities, China's SOEs in the resource sector are more likely than their private counterparts to invest overseas, but in manufacturing they are less likely to do so. Meanwhile, productivity still predicts firms' propensity to invest overseas in a given industry, a sign that market mechanisms are also at work. Taken together, these findings demonstrate that China's outbound FDI is governed by market dynamics but also regulated by the government in order to accomplish state goals.

Chinese FDI is neither entirely a product of the free market nor the result of sheer political command. SOEs do not need to be devoid of profit incentives to act as

instruments of the state. Through policy manipulation, autocratic governments can influence profit-maximizing firms to behave in accordance with state preferences. This manipulation, however, is not without costs. In a given sector, it is not always the most productive firms that internationalize. Internationalization also depends on the preferences of the elite and which firms elites choose to privilege. Whether a firm invests overseas also depends on whether it has been “chosen” by the state. China’s Go Out strategy, therefore, may have supported the global expansion of less efficient SOEs at the expense of its more competitive private firms.

When analysts talk about China’s outward FDI as a product of state engineering, the connotation is often that FDI serves as a vehicle for China’s foreign policy ambitions. I demonstrate in this chapter that this characterization is incomplete. This chapter highlights a different flavor of state objective. Here state intervention is guided by China’s domestic priorities to ensure growth and stability, and I show that these domestic priorities are prominent drivers for China’s outward FDI.

Several extensions to the empirics in this chapter are possible, allowing addition refinement in the tests. Currently I only differentiate between the broadly defined natural resources and manufacturing sectors and examine the average effects of state intervention on firms’ propensity to invest overseas. The evidence could be further enriched by drilling down to investigate effects at the industry level, particularly within the manufacturing sector. For example, for the steelmaking industry I anticipate that, controlling for productivity, SOEs may have a higher propensity to invest overseas than private firms due to the industry’s proximity to upstream resource acquisition in iron ore. State-owned steelmakers are likely to be more successful at lobbying for support in

developing an upstream supply chain overseas than their private counterparts. For the textile industry there is potential inter-temporal variation to explore: According to my theory, prior to 2005, state-owned textile manufacturers should be more likely than private firms to venture overseas due to the government's push to develop "external processing trade" to circumvent the quota system under the Multi Fibre Arrangement. SOEs in the textile industry assume the role of providing public goods, setting up overseas assembly plants in order to facilitate the export of intermediate inputs from downstream producers in China. Conversely, after 2005, when the quota system was abolished, textile SOEs' propensity to invest overseas should be lower than private firms, since their dominant role reverts back to providing local employment. I reserve these additional tests for future research.

Appendix 3A Industry Coding of the MOFCOM Registry

All projects are categorized by industry based on the detailed industry description included in the MOFCOM registry. This is done by machine using keywords for the entire dataset (21,054 records) and also by hand for a subset of 3,000 records. The hand coding was done independently by research assistants without using the results of the automatic coding, yet produced very comparable results. The machine procedure and parallel coding validation are detailed below.

Machine coding

I first parse the industry descriptions into words using the Yoshikoder software package (<http://www.yoshikoder.org>) and identify all keywords appearing more than 10 times in the descriptions (there are 1,555 such words). Each of these keywords is then manually classified as describing one or more industry codes. These industry codes are designated by China Bureau of Statistics in the National Industry Classification Code Table (国民经济行业分类代码表) GB_T4754-2011. Table 3A.1 below presents the ten most frequently appearing key words associated with each industry code (when there are fewer than ten key words associated with an industry, all are reported). Keywords that frequently appeared but are not specific or informative (e.g. “undertake” 从事; “international” 国际) are tracked separately but not used for the industry designation.

Table 3A.1: Top Ten Key Words Within Each Industry Designation

Agriculture, Fishery, and Forestry	捕捞,种植,采伐,养殖,畜牧,饲养,砍伐,培育,森林,渔业
Oil, Gas, and Mineral Extraction	开采,钻井,选矿,采矿,采选,采油,天然气,油气,矿,钻采
Manufacturing	修理,修造,生产,加工,制造,组装,冶炼,深加工,装配,提取
Electric Power,Gas,and Water Supply	水利,水电,电网,供水,电站,变电,电厂
Construction	市政,装潢,承包,施工,装修,建造,承建,改造,土建,分包
Transportation and Logistics	船务,运输,配送,装卸,分拨,储存,中转,分装,空运,储运
Information technology	软件,计算机,通信,通讯,数字,网卡,光缆,有线,网站,电信
Trade	收购,转口贸易,销售,进出口,批发,采购,出口,进口,买卖,经销
Hospitality	酒店,餐饮,宾馆,饭店,住宿,餐厅,中餐
Finance	融资,保险,金融
Real estate	房地产,物业,地产,不动产
Business services	品牌,咨询,劳务,人才,签证,外派,派遣,反馈,联络,收集
Research and technical services	勘探,勘测,测绘,钻探,录井,探矿,勘查,地质,转让,高新
Public Works and Environmental Management	治理,绿化,排水,垃圾,城市
Other Service	美容,按摩
Education	教学
Public Health and Social Services	中医,医疗,临床,医学
Entertainment and Culture	发行,文化,艺术,影视,图书,节目,传媒,中文,媒体,娱乐

The resulting set of keywords is matched against the industry descriptions and each project then assigned a set of industry categories based on its description. When defining manufacturing projects, for example, I count a project as “manufacturing (general)” when any of the manufacturing keywords are present. This approach codes approximately 27% of projects as manufacturing. Under this approach a project is often associated with multiple industry groups. So I also apply an alternative criterion: a project would be assigned “manufacturing (core)” if it contains more key words associated with manufacturing than any other industry category. Under this definition about 13% of projects are classified as manufacturing. Table 3.1 reports results from

this classification method since the main purpose of the table is to illustrate the distribution of investment projects' core areas of business.

Parallel coding validation

To benchmark the performance of the machine coding I also drew a random sample of 3000 projects and assigned research assistants to hand-code them into industry groups. I did not provide the machine matches, so this was done blind. The machine coding of manufacturing matched the hand-coding 92% of the time. That is, either both methods coded the project as being in manufacturing (general coding) or neither method did. Performance for other industry categories was similarly strong. The distribution of matches for manufacturing appears in Table 3A.2 below.

Table 3A.2: Performance of Machine Keyword Matching Relative to Hand-Coding in a Subsample of 3000 Observations

		Machine coded	
		Non-manufacturing	Manufacturing
Hand-coded	Non-manufacturing	70.2	5.3
	Manufacturing	3.2	21.3

Values show percentage of observations in each cell for the set of 3000 observations that were crosschecked with hand-coded variables.

Table 3A.2 shows that machine coding produces false positive 5% of the time and false negative 3% of the time. When comparing manufacturing (core coding) to hand coding, the number of false positives is reduced to only 1.2%.

Appendix 3B Merging MOFCOM Certificate and CSMAR Firm-Level Data

Text-based matching was done using the names of the firms and their provinces as recorded in the two datasets. For the main sample I used a conservative approach, assigning matches only when a relatively precise match (see below) was achieved. This means that somewhat fewer certificates are matched, but the quality of the matches is high. To the extent typographical errors are present or there are variations across the datasets in the precise name used by the firm not all matches will be made: the implicit assumption here is that the variations that could cause a match to be missed are not correlated with variables of interest in the data.

Matches are assigned using the following steps:

- 1) All punctuation is removed from the firm names in both datasets.
- 2) Common words that may be dropped when recording a company name (e.g. “limited”, “corporation”) are also removed. These were assembled using the Yoshikoder software to identify common words in the name data and then manually screening for words that are sometimes dropped in a “short form” of a company name. The full list of words screened in this step is: 总公司, 分公司, 公司, 有限, 分厂, 责任, 集团, 股份, 总厂, 国营, 企业, 合资, 中外, 附属, 控股, 国有, 联营, 独资, 合作, 厂, 市, 省, 县, 区.
- 3) For unlisted and non-central state-owned firms (where it is possible the same firm name could be used in multiple provinces), I assign a match only if both the province and firm name (after the filters above) are exactly matched across datasets.
- 4) For listed and central state-owned firms I require only a perfect match on the name of the firm; this improves the number of matches since larger companies and

central state-owned enterprises often have multiple office locations across the country. With these much larger, national firms there is also not the concern that more than one with the same name could exist in different locations.

This process produces a match for 34% of the records in the certificate data from MOFCOM. This is consistent with the sectoral distribution of coverage in CSMAR, which includes only firms in the resources and manufacturing sectors.

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Chapter 4

State Preference, Rent Capture, and Risk-Taking Abroad

In Chapter 2 above, I build on two workhorse models in international political economy (Melitz 2003; Grossman and Helpman 1994) to develop a general theory that explicates the interactions between firms and home governments in the context of outbound FDI. In Chapter 3, I test the first part of the theory using firm-level data on Chinese outbound investments and establish that Chinese elites are able to shape firms' investment decisions in line with state objectives. In this chapter, I will demonstrate that this manipulation, while effective to some extent, also leads to perverse consequences unintended by the state agenda. This point comprises the second key prediction of my theory.

Recall that my theory postulates, in a system of low public accountability, state preferences are vulnerable to rent capture: Political elites depend on state-owned enterprises (SOEs) to carry out certain state objectives (e.g. energy security) and so the elites devise preferential policies (e.g. subsidies, insurance, bailouts) enabling firms to accomplish these objectives. However, firms can also take advantage of these policies for their own benefit, seeking rents. In particular, SOEs can count on being bailed out by elites when investments go poorly, ultimately passing on the losses to the disenfranchised public. This implicit insurance leads to moral hazard, encouraging firms to take excessive risks when choosing host countries in a gamble for higher than normal returns. Compared to private firms with limited access to preferential policies,

SOEs are both more tolerant of and more likely to seek higher risks, political or otherwise, when investing overseas.

The key dependent variable of this chapter is thus multinational firms' risk-taking overseas. Although my argument extends to general risks associated with cross-border investments, I focus here on testing my theory with regard to political risks. I focus on political risks for several reasons. First, political risks derive from domestic institutions and are therefore largely country-specific (Jensen 2005, Vermeule 2013). In the globalized economy economic disturbances have become highly contagious and correlated across sectors and countries. By limiting my analysis to political risks, I can capture significant variation in firms' choices of risk level by observing where they have chosen to invest. Second, political risks, especially risks of conflict and violence, are difficult to mitigate (Graham 2014). By focusing on a category of risks with limited manageability, I conduct a cleaner test of firms' capacity to absorb risks. Third, focusing on political risks allows me to speak to an established literature in international political economy. Scholars have written extensively about the connections between political institutions, political risks, and FDI flows.

The central implication of my theory runs directly in contrast to one of the most established findings in this literature, that multinational firms are averse to political risks in host countries. My theory also implies that reaction to risk varies across firms, depending on their ties to the government. Stated more precisely, the predictions I test here come in two flavors. First, the more general of the two, is that SOEs possess higher *risk tolerance* than private firms in an autocracy. Note that this general risk tolerance does not necessarily also imply rent capture. SOEs could be taking greater

risks by direct command of the political elite.¹ For example, if it is the agenda of the state to secure strategic resources in certain countries and these countries happen to have higher risks, then having SOEs venture to those risky destinations is consistent with state intent. The elites' provision of policy perquisites is having the desired effect in this scenario: it increases SOEs' acceptance of risks in relevant host countries and enables them to accomplish state objectives. In contrast, my second prediction examines the potential for unintended firm-level responses from these same policies: I argue SOEs are also more likely to be *risk-seeking* than private firms. Motivated by their own profit calculus and taking advantage of the implicit insurance, SOEs will seek greater risks independently from state objectives (in the competitive international marketplace higher risks are associated with higher returns; Markowitz, 1952). In this case, SOEs have hijacked state policies in order to capture rents. Elites' manipulation of market mechanisms through preferential policies has led to unintended investment outcomes.

The empirical challenge in distinguishing the two flavors of my prediction is that tolerating and seeking risks are observationally very similar. Both mechanisms manifest themselves as SOEs making investments in riskier host countries than private firms. To isolate the presence of risk-seeking and rent capture, I need to identify evidence of "excessive" risk-taking compared to the baseline established by state intent (e.g. securing natural resources, furthering diplomatic goals). This baseline is the level of risk firms would have taken if they were dutifully fulfilling state goals. If after

¹ The theoretical ideal type for this scenario is illustrated in Section 2.2.2, where the elite is modeled to have dictatorial power over the SOE and therefore to command the SOE's investment activities.

controlling for indicators of state intent, SOEs are still attracted to high-risk destinations, then I have found support for the risk-seeking hypothesis, i.e., an attraction to risks that cannot be justified by the preference of the state.

Applying this empirical strategy, I evaluate my predictions with firm-level data on Chinese outbound direct investments. I control for state interests in two ways: First, I control for the sector of investment. Securing uninterrupted supply of raw materials overseas is imperative for Chinese elites to sustain domestic economic growth and, by extension, regime stability; it is part of the official mandate in Chinese policies promoting outbound FDI (Friedberg 2006, Hendrix and Noland 2014). If SOEs carry out this state objective, we would expect that their investments flow to resource-rich countries. Second, I control for China's diplomatic relations with host countries. Leaders around the world use diplomatic connections to promote economic interests (Nitsch 2007). Meanwhile, analysts have paid significant attention to China's use of trade, investment and aid policies to win influence (e.g. Davis et. al. 2012; Brautigam, 2010; Dreher and Fuchs, 2011). If economic statecraft is at work and SOEs act as instruments of the state, then we should expect SOEs' investments and elites' diplomatic activities to proceed in tandem.

I develop two novel sources of data for my empirical investigation: First, I compile records from the outbound investment registry at China's Ministry of Commerce (MOFCOM), which covers all officially recorded investment projects originating from China since 1983. The second source is an original survey of Chinese firms detailing their outbound investment activities, conducted in 2013. My findings from the two datasets corroborate one another in showing that SOEs invest in host

countries with greater risks. This disparity persists even after controlling for the confounding effects of state agenda, further suggesting that the disparity I identify stems at least in part from SOEs' risk-seeking behaviors. The findings confirm my theory: while policy interventions may be somewhat effective in enabling SOEs to act in line with state objectives, SOEs are also governed by their own profit calculus. In a low accountability system, the interaction of distortionary policies and profit incentives gives rise to rent capture at the firm level and can lead to perverse outcomes.

This chapter is organized as follows: In Section 4.1 I briefly review the literature on FDI and political risks. My study joins a small but growing literature that explicates varying responses to political risks across firms. Section 4.2 outlines features of China's partially liberalized economy that render it vulnerable to rent capture. I also present recent examples of the presence of rent capture. Section 4.3 develops testable hypotheses and describes the operationalization of key variables. Section 4.4 describes the data. Section 4.5 presents three empirical models, formally testing the key predictions of my theoretical model. Finally, Section 4.6 concludes with a discussion of the implications of my findings and potential for additional research.

4.1 FDI, Firms, and Host Country Political Risks

Foreign investors face a variety of political risks in host countries, including direct or creeping expropriation (Kobrin 1984, Frieden 1994, Tomz and Wright 2009, Li 2009), policy uncertainty (Rodrik 1991), bureaucratic corruption (Wei 1997, 2000), and political violence (Li 2006). Many scholars have found that political risks, and the

political institutions that engender or limit them, have a significant impact on FDI inflows. These institutional characteristics include political regime (Jensen 2003, 2008, Li and Resnick 2003), executive constraint (Henisz 2000, Li 2009), federalism (Jensen and McGillivray 2005), judicial strength and rule of law (Biglaiser and Staats, 2010, 2012), regulatory quality (Daude and Stein 2007), the presence of bilateral investment treaties (Elkins, Guzman, and Simmons 2006; Kerner 2009; Allee and Peinhardt 2010), and international trade agreements (Büthe and Milner 2008).

A majority of this literature, however, relies on aggregate investment flow data. It focuses on how host country institutions attract or deter foreign investments. In contrast, firm-level responses to political risks are underexplored. Only a handful of studies in political science have paid attention to investors' differential aversion to risk. The scholarship on diaspora investors finds that, due to their informational advantage and national pride, these investors are less sensitive to political risks when they invest in their countries of origin (Leblang 2010, Graham 2010, Gillespie et. al. 1999). Analyzing a sample of Japanese firms and their overseas subsidiaries, Marshall and Stone (2012) demonstrate that firms may prefer a non-zero level of expropriation risk in order to deter future entrants and to obtain monopoly rents.

In recent years, the rise of firms from emerging economies like China and Russia has created new questions in this literature. Several empirical studies identify the pattern that emerging multinational corporations (MNCs), and Chinese investors in particular, invest in riskier host countries than their western counterparts (Buckley et al., 2007; Beazer and Blake, 2011; Kolstad and Wiig, 2012). The literature offers a pair of potential explanations: (1) Emerging MNCs, having grown up in "tough neighborhoods"

themselves, may be more apt at dealing with corrupt, uncertain host environments than traditional MNCs accustomed to the rule of order and law (Cuervo-Cazurra and Genc 2008; Eden and Miller, 2004; Beazer and Blake, 2011). (2) Political affinity, insofar as the governments behind emerging MNCs may be on friendlier terms with other poorly governed regimes, could effectively reduce the risks facing investors (Li and Liang, 2012). Neither of these explanations, however, is entirely satisfactory. That emerging MNCs may be better at navigating corruption and bribes may protect them from creeping expropriation or policy uncertainty, but it will not prepare them for battling a war-torn state. Further, flags and investments may go hand in hand, but forming tight relations with one government could also alienate its opposition. China's support for Gaddafi, for example, was not able to safeguard its billions of dollars of assets in the country when the regime fell.

My work here adds a new, domestic political economy explanation for why Chinese investors appear to be less sensitive to risks in host countries. I argue that China's SOEs (which account for the majority of China's outbound FDI) differ from typical multinational corporations in that they both bear state objectives and are privileged with policy perquisites that act to enhance their tolerance of risk. Not only are these SOEs more tolerant of risk as a result, they are also risk-seeking in their own right; the confluence of SOEs' policy roles, commercial autonomy, and the lack of public accountability in China's political system creates conditions ripe for moral hazard and rent capture.

4.2 China's Outbound FDI: Vulnerable to Rent Capture

China is now the world's third largest investor after the United States and Japan and it accounts for nearly 20% of the total investment from developing economies.² I focus my empirical tests on China not only because of its importance, but also because it provides a particularly illuminating case for my theory. My theory in Chapter 2 outlines the conditions conducive to rent capture by SOEs: rent capture is more likely to occur when the state is dependent on SOEs to carry out its agenda, when SOEs possess certain autonomy, and when taxpayers are disenfranchised. In this case, because SOEs can count on being bailed out by elites when they make poor investment decisions, they take excessive risk in a gamble for higher returns on overseas investments, passing on the cost to the domestic public. In this section I illustrate the presence of these conducive conditions in China's political economy and argue that, under these conditions, the Chinese state's agenda is left vulnerable to capture by SOEs.

China's outbound FDI is guided by a national strategy known as the Go Global (or "Go Out") strategy.³ Although the motivations for "Go Out" are multifold, the first and foremost objective is to secure resource supplies overseas.⁴ SOEs are the main

² Author's calculation based on UNCTAD bilateral investment data, 2014. China is by far the largest investor among developing economies. Chinese OFDI accounts for nearly 20% of total investments originating from developing economies. The second on the list, Russia, accounts for less than 11%. China's OFDI in fact exceeds all other BRIC countries combined.

³ China was mainly a recipient of foreign investments in the 1980s and 1990s when the government promoted FDI inflow and export. The "Go Global" Strategy was first put forth during the third plenum of the 9th People's Congress and then formally adopted by the Chinese Communist Party during the 5th plenum of the 15th Party Congress. China's Go Out strategy has been described by a number of policy reports; for example see http://www.cifor.org/publications/pdf_files/wpapers/wp-79cifor.pdf.

⁴ China's official documents confirm the emphasis on investments in natural resources overseas. Chapter 52 of China's 12th Five-Year Plan lists developing overseas resources as the top component of the Go Out strategy. The full text of the plan is accessible at http://www.gov.cn/node_11140/2006-03/15/content_227686.htm (accessed on July 10, 2014). In 2003 the National Development and Reform Commission (NDRC) and China Export and Import Bank (EXIM) jointly released the priorities for

conduit for carrying out this national strategy: SOEs are prominent players in China's natural resource sector to begin with; the three large national oil companies are a dominating force in oil and natural gas.⁵ In terms of policy, private firms were not officially encouraged (*gu li* 鼓励) to engage in outbound FDI until 2012.⁶ In 2006, 81% of all FDI came from SOEs, and among those investments 82% were made by central SOEs (OECD, 2009). In spite of the rapid rise of Chinese private investments in recent years, SOEs still accounted for as much as 59.8% of total Chinese outbound FDI in 2012.⁷

China's economic reform may have reduced the overall share of SOEs in the Chinese economy, but the remaining state sector has become more consolidated and been elevated to greater strategic importance (Yang and Jiang 2012).⁸ While these

preferential loans to support Going Out. The first priority was natural resource development projects, followed by infrastructure.

⁵ In 2009 Chinese oil companies accounted for 13% of total global oil and gas acquisitions (USD 144 billion), and for 61% of all acquisitions by national oil companies (USD 30 billion) (Jiang and Sinton, 2011).

⁶ In 2006, MOFCOM circulated a draft "Opinion on Encouraging and Supporting Private Enterprises 'Going Out'", 商办合函(2006) 9号 [征求意见稿] 关于鼓励和支持民营企业"走出去"的若干意见. However, the position was not officially adopted until 2012, when twelve agencies under the State Council jointly released "Implementation Opinion on Encouraging and Guiding Private Enterprises to Develop Overseas Investments." (发改外资[2012]1905号: 国家发展改革委, 外交部、工业和信息化部、财政部、商务部、人民银行、海关总署、工商总局、质检总局、银监会、证监会、保监会和外汇局(十二家国务院有关部门)关于鼓励和引导民营企业开展境外投资的实施意见). Note that even then, private firms are to be "guided" instead of "supported" in their overseas endeavors.

⁷ China EXIM "Analysis on Developmental Trends of Chinese Outbound Direct Investments" (中国对外直接投资发展趋势分析), available at

<http://www.sinosure.com.cn/sinosure/xwzx/rdzt/tzyhz/gjtzj/163724.html>, accessed on June 30, 2014.

⁸ China's SOEs are tasked with "realizing the interests of the entire country and society," providing a foundation for regulating the national economy and protecting the country's economic security against international risks (People's Daily, 国有企业是社会主义市场经济第一主体, June 1, 2012. Reprinted by the State-owned Asset Supervision and Administration Commission of the State Council). The "Decision on Several Important Issues Regarding Comprehensively Deepening Reform" (关于全面深化改革若干重大问题的决定), issued during the Third Plenary of the 18th Party Congress forcefully reiterates: "(We) must unwaveringly consolidate and develop the public economy, uphold public ownership to be in the dominant position and to play a leadership role, and constantly enhance the vitality,

firms are delegated state objectives, they are also given significant autonomy to operate commercially. Anecdotal evidence suggests that, although SOEs purportedly bear policy burdens like energy security, they are also profit driven and possess considerable autonomy (Liou 2009, 2013). Even China's national oil companies (NOCs) are found to operate with significant liberty from the Chinese government (Liou 2009, Jiang 2014, Jiang and Sinton 2011). In discussing the NOCs, Liou (2009) observes, "the changing state/enterprise relationships associated with economic reform entail changes in the ways SOE managers carry out state-prescribed policies. SOE managers have market incentives to pursue a profit-maximization strategy that does not always reflect state interests in venturing abroad." In spite of the energy security hyperbole, Jiang and Sinton (2011) find no evidence for a government-imposed quota under which NOCs must ship equity oil back to China. Instead, decisions about the marketing of equity oil appear to be based on commercial considerations.

The latitude in decision-making was meant to make SOEs more efficient. My theory, however, predicts that this combination of commercial autonomy and designation to serve state objective breeds rent capture instead of efficiency, especially when taxpayers bear the cost of SOEs' misadventures. SOEs, anticipating that they will not be allowed to fail, take greater risks when pursuing overseas investments. Their confidence in state-provided financial backstopping is not unfounded. When crisis broke out in Libya, the Chinese government engineered one of the largest and most expensive personnel evacuations in history while leaving over eighteen billion dollars

control, and influence of the state economy" ("必须毫不动摇巩固和发展公有制经济, 坚持公有制主体地位, 发挥国有经济主导作用, 不断增强国有经济活力、控制力、影响力").

of assets behind.⁹ The 13 central SOEs invested in Libya emerged unscathed. China's SOEs are also frequent targets of recapitalization by China's state banks and sometimes directly by the finance ministry. SOEs' strategic role and service to state policies are often cited as reasons for the bailouts.¹⁰ More prevalent than intermittent bailouts, however, is SOEs' continuous access to preferential financing regardless of repayment concerns (Hericourt & Poncet 2008, Cull and Xu 2003, Lin 2011). The cost of these explicit or implicit bailouts is ultimately borne by the disenfranchised taxpayers. As Steinfeld (2000) notes, "Chinese state firms to this day neither go out of business nor find themselves subject to credit provision on anything resembling commercial standards... it is China's substantial levels of household savings that serve to prop up commercially unviable SOEs."

Leveraging the "Go Out" strategy, I argue SOEs now have access to an even bigger, global base over which to capture rents. Anecdotal and indirect evidence is accumulating for SOEs' rent seeking overseas. One indication is SOEs' extensive involvement in overseas investments outside their core areas of business (*zhu ye* 主业).

In October 2011 *The Economist* ran a report on the state-owned China Aviation

⁹ Sina Financial News, "中企 188 亿美元合同命悬利比亚 五央企披露最新进展,"

<http://finance.sina.com.cn/g/20110825/214110380641.shtml>, accessed on September 20, 2013.

¹⁰ In 2008, China's State Council authorized the recapitalization of five state-owned power companies for nearly 13 billion RMB (about 2 billion USD), citing the public service these companies provided during a deadly earthquake and blizzard as justification for the bailout. In 2012, these same companies were recapitalized again in the amount of 1 billion USD

(<http://finance.sina.com.cn/g/20090220/14585882543.shtml>, accessed August 15, 2014). In 2008 two major airlines were also bailed out, followed by more capital injection only shortly thereafter

(<http://finance.sina.com.cn/focus/sasaczzyq/>, accessed August 15, 2014). In 2011, SASAC recapitalized CNR and CSR, two large state-owned automakers (<http://business.sohu.com/20111229/n330578445.shtml>, accessed August 15, 2014).

China Central Huijin, whose principal shareholder rights are exercised by the State Council, continuously recapitalized China EXIM Bank and Sinosure (for example see First Finance Daily (第一财经日报), August 18, 2005, "中国进出口银行首家获得汇金公司 50 亿美元注资." First Finance Daily, November 13, 2009, "汇金拟发债 800 亿 注资进出口行信保公司"). Most bailouts, however, are hidden from the public eye.

Technology Import-Export Corporation (CATIC)’s failed attempt to build luxury hotels and apartments on the coast of Sri Lanka (that is, when it is not busy exporting military planes).¹¹ Although the intent of the article was to illustrate political risks involved in Chinese investments (the investment failed due to local public resistance), it also provides a case in point for my argument here: Chinese SOEs’ are making speculative investments that deviate from their designated policy roles. CATIC’s “commercial transgressions” are hardly unique. In 2012, due to rising concerns about exposure to speculative risks, the State Assets Supervision and Administration Commission (SASAC) banned central SOEs from investing in non-core business areas overseas, but still permitted “exceptions,” leaving the enforcement of this ban porous at best.¹²

Below, I introduce a series of more formal empirical tests that illustrate the link between the circumstances surrounding Chinese FDI and the resultant rent capture by SOEs.

4.3 State Objective or Rent Capture? Hypotheses on Risk-Taking

As the model in Chapter 2 demonstrates, an observable consequence of rent capture is excessive risk-taking by SOEs; this section works to establish this point empirically. Assessing rent capture empirically presents two main challenges: One is how we measure risk. The other is how to establish “excess.” First, with regards to

¹¹ The Economist, October 29, 2011. “Sri Lanka and China: About Face.” <http://www.economist.com/blogs/banyan/2011/10/sri-lanka-and-china>, accessed on November 12, 2011.

¹² See “Interim Measures for the supervision and management of the central enterprises to invest overseas” (国资委令第 28 号《中央企业境外投资监督管理暂行办法》), which states, “In principle, central enterprises are not to engage in non-core business investments overseas; if there is a special reason to invest, (the investment) should be authenticated (*he zhun*) by the SASAC.”

measuring risks, I use firms' chosen investment destination as a proxy, which is an advantage to testing for rent capture in the context of international investments. Ideally, we would like to scrutinize risks associated with every investment project; when this detailed information is unavailable the country to which the investments are directed provides a proxy. Everything else equal, a minerals project located in Australia is less risky than one located in the DRC due to Australia's more stable policies, secure political regimes, and better protection of property rights. International investments are subject to many different types of risks, both economic and political. I focus here on the political risks in a given destination. This is a sensible choice in that economic risks are pervasive and highly correlated in a globalized economy, affecting virtually all investors across all countries, whereas political risks have much greater variation upon which investors form their individual assessments and choices. In addition, political risks, especially risks of conflicts and violence, are difficult to manage. Few can stop a civil war from occurring. Thus, political risks provide me with a cleaner test of firms' risk acceptance, and one that is relatively unconfounded by firms' ability to lower effective risk.

The second key empirical challenge comes in establishing an "excess" in risk-taking. I begin by considering the benchmark embedded in the risk profile of private firms: Private firms do not carry explicit policy burdens and are at a disadvantage in accessing policy perquisites. Compared to SOEs, I expect private firms to behave in a more autonomous manner while maximizing profits and to be averse to risks in host countries. SOEs, on the other hand, can take advantage of policy perquisites and seek rents; they should be investing in riskier destinations.

Hypothesis 1: SOEs invest in riskier destinations than private firms.

However, this pattern alone does not prove rent capture, since there is also the possibility that SOEs are simply carrying out orders of the state. Theoretically this is portrayed in Section 2.2.2 of Chapter 2, where the state is modeled to possess dictatorial power over the firm. The SOEs may still be allocated policy perquisites, but these preferential policies merely enable firms to take greater risks in accordance with the state's agenda. For example, if China's premier ordered CNPC to invest in Libya, China's policy banks would still provide CNPC with discount loans and insurance to enable the firm to invest in this highly volatile area, but this act does not constitute rent capture on the part of SOE because the firms are simply following the intent of the state. So to establish rent capture we must control for the state agenda. To re-state Hypothesis 1 more precisely, there is rent capture even when controlling for the agenda of the state:

Hypothesis 1a: SOEs invest in riskier destinations than private firms, controlling for the agenda of the state.

How do we operationalize the agenda of the state? I control for state intent in two ways. First, I consider the sector of investment. China's Go Out Strategy is highly focused on securing natural resources overseas and resource investments may be inherently associated with higher political risks in host countries. Countries with rich resource endowments are disproportionately victims of conflicts and corrupt governments (Collier and Hoeffler, 2004; Collier et al., 2004; Ross, 2004; Van der Ploeg, 2011). The first-mover advantage also tends to be particularly pronounced in the natural resource sector (Bunker & Ciccantell, 2005), where latecomers are forced to invest in riskier frontiers. As a result, SOEs, by virtue of fulfilling the Chinese

government's policy directive to ensure the country's energy security, may appear to be seeking out riskier destinations without attempting to reap rents for themselves.¹³

Second, I control for China's diplomatic relations with host countries. Specifically, I use Chinese leaders' meetings with foreign dignitaries as a proxy for bilateral relations. This proxy is appropriate given that the Chinese leadership is known for cementing large numbers of MOUs and commercial contracts during overseas visits. In Xi Jinping's July 2014 visit to Latin America, for example, more than 150 contracts and framework agreements were signed for over 70 billion dollars in sectors including energy, minerals, and infrastructure.¹⁴ In May 2014, Chinese Premier Li Keqiang signed more than 60 agreements during his tour of Africa.¹⁵ Although a substantial number of agreements never materialize into actual projects (Brautigam 2010), the agreements themselves nevertheless signal the preference of the Chinese elite for investing in certain countries.¹⁶ Not only do leadership activities signal state intent, but they also capture the extent to which warm bilateral relations may reduce the effective risks facing investors, which is another confound for the moral hazard mechanism I hope to isolate. Political backing could draw in investments even when the "objective" levels of risk are high in the host country, and Li and Liang (2012) have shown that

¹³ Note that controlling for the sector of investment is a highly conservative approach since, even within the natural resource sector and for the same commodity, some investment destinations would be safer than others. Chinese elites encourage resource investment without decreeing the actual destination. In other words, there is still potential for SOE rent capture within the resource sector. By controlling for the sector of investment, however, I am essentially giving all SOE investments in resources the benefit of the doubt that they are faithfully carrying out the state agenda.

¹⁴ Xinhua Net, August 13, 2014. "习近平拉美行八大看点," http://news.xinhuanet.com/globe/2014-08/13/c_133553596.htm, accessed on August 15, 2014.

¹⁵ 中国政府网, May 12, 2014. "总理出访大约签订 60 份协议 为中非合作树立很好的目标" http://www.gov.cn/wenzheng/wz_zxft_ft17/2014-05/12/content_2678062.htm, accessed on August 15, 2014.

¹⁶ In fact, the gap between high-level agreements and ground-level investments is consistent with the presence of a disconnect between elite preference and SOE behaviors.

Chinese investment overall does tend to follow the direction of China's bilateral ties. It is conceivable that, when a project is endorsed by a high-level MOU signed between the Chinese elite and the host country, the host government would be less likely to expropriate it. More important, compared to private Chinese firms, SOEs may benefit disproportionately from positive bilateral relations by bearing the Chinese government's emblem in an otherwise risky destination.

4.4 Data

I test my hypotheses using two previously unexplored sources of data on Chinese OFDI. One is compiled from the registry of China Ministry of Commerce (MOFCOM) which catalogues all officially approved and archived outward investment projects. As of April 2012, this registry contained 21,054 projects by 14,634 Chinese companies. The other is the 2013 China Outward Direct Investment Survey with a sample of 1,056 Chinese companies, which I conducted in cooperation with the China Council for the Promotion of International Trade (CCPIT) and Tsinghua University. I designed the survey instrument to collect firm-level covariates relevant to rent capture and investment risk.

4.4.1 The MOFCOM Registry

The MOFCOM registry provides relatively comprehensive coverage of Chinese outbound investments due to China's internal rules regulating outward investors.¹⁷

¹⁷ Firm-level international investment data are scant to begin with, and are even scarcer for investments coming from China. Analysts mainly rely on sources such as the Heritage Foundation's China Global

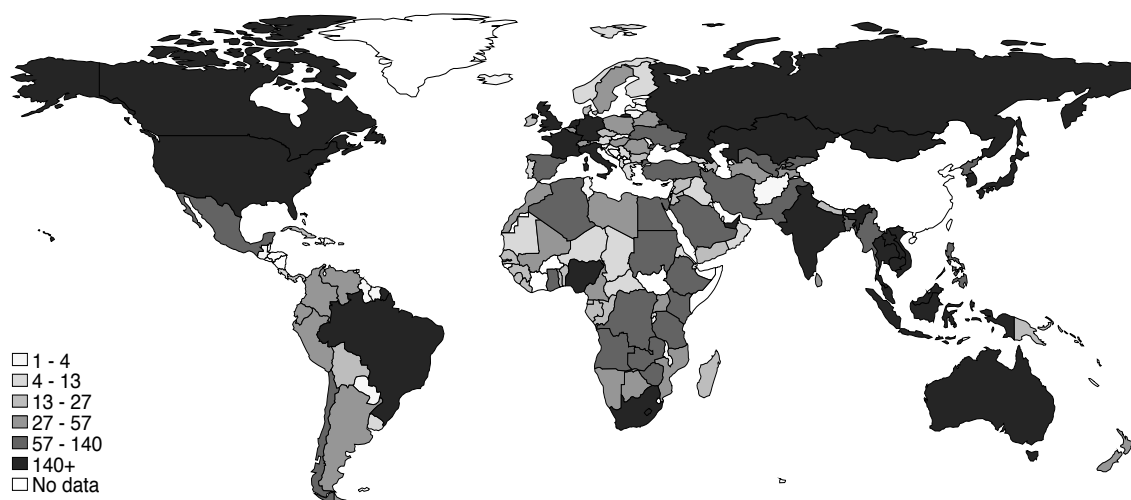
China's capital markets are tightly controlled. To access foreign exchange through official channels, companies regardless of ownership must register their projects with MOFCOM.¹⁸ The MOFCOM registry is a publicly searchable database. Though not downloadable, the relatively simple structure of the database makes it possible to extract with a web crawler. Data included in this paper cover projects that were filed through April 2012, shortly before when the crawler was last applied. The earliest project documented in the database was in 1983, when China International Water and Electric Corporation (a central SOE) established its representative office in Nepal, and the last ones were a total of thirty-two projects registered on April 28, 2012. There are a total of 21,054 projects, made by 14,634 companies, recorded in the registry. Each record contains the approval date, destination country, and a description of the project. Using machine coding as well as extensive cross-validation with manual assignments, I code project descriptions into industry categories consistent with those used by China National Bureau of Statistics. A more detailed description of the coding process and summary statistics on the sectoral distribution of projects are provided in Chapter 3 in Appendix 3A and Table 3.1 respectively.

Figures 1a and 1b present a geographic visualization of Chinese OFDI projects in the last decade (2003 - 2012). Figure 4.1a showcases the pattern for all investment

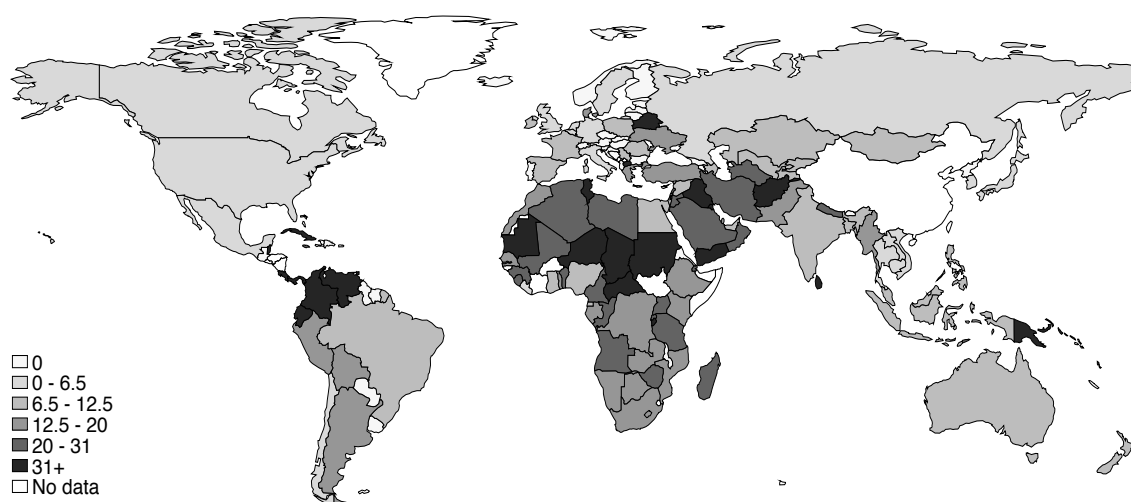
Investment Tracker (CGIT) or commercial databases such as fDimarkets.com. The drawback of CGIT is that it only tracks investments over \$100 million, which biases the sample heavily toward large-scale projects in energy, mining, and infrastructure. fDimarkets.com reportedly covers over 80% of cross-border transactions in the world, but it relies heavily on media reports and also runs the risk of biasing toward large, high-profile projects.

¹⁸ Prior to 2005, outbound investments were subject to approval by the NDRC and MOFCOM. After 2005, investments under a certain amount no longer needed to apply for approval, but were still required to be authenticated (*he zhun* 核准) and registered/archived (*bei an* 备案). In 2009, MOFCOM updated the regulation further to simplify the process, requiring only registration. For more information on policies regulating outbound investments, see Shi et al (2014).

projects from China. It is striking that, by project count, there appears to be no bias toward high-risk host countries. The pattern exhibited here is consistent with general global patterns in FDI: developed countries are the biggest magnets attracting foreign capital, including Chinese investments. However, when looking at central SOE projects as a share of projects in a given country (Figure 4.1b), we find that central SOEs are much more concentrated in high-risk host countries. The striking difference between the two figures is consistent with my theoretical expectation that SOEs are more prone to host country risks. However, it is premature to conclude that this higher propensity for risk indicates rent capture. As described above, a number of other factors like companies' sectoral concentrations could confound the relationship.



(a) Number of Projects



(b) Share of Central SOE Projects

Figure 4.1: Chinese Outbound Direct Investment Projects

4.4.2 2013 Chinese Outbound Direct Investment Survey (CODIS)

The MOFCOM registry provides little in the way of firm-level covariates other than the firm's ownership status. This is not ideal since firm-level characteristics (e.g. firm size) could also confound the hypothesis at hand. To address this limitation I turn to a second set of data. I gather firm-level covariates through an original survey, the 2013 CODIS survey, conducted from March to July 2013 in cooperation with the China Council for the Promotion of International Trade (a trade body, founded in 1952, of the Chinese government) and Tsinghua University.

The 2013 survey had a sampling list of 3,174 firms drawn from the universe of firms present in the 2008 China Economic Census, stratified according to firm size, sector (inside China), ownership and whether the company has already invested abroad (as identified by whether the firm appears in MOFCOM's outbound investment registry). Anticipating their lower responses rates, I oversample large firms, SOEs, and firms in the extractive sector. Because, as in most economies, firms that invest overseas are a tiny proportion of the total I also oversample firms that have already made such investments. This improves power in the estimates below.¹⁹ A detailed description of the sampling and survey implementation process is provided in Appendix 4A. 1091 companies returned surveys. After removing incomplete and duplicate entries, the final sample for analysis includes 1056 companies. Of these, 142 are state-owned enterprises.

¹⁹ As is calculated in Chapter 3, 0.98% of Chinese extractive and manufacturing firms with annual revenues above 5 million RMB have invested abroad as of 2012. Similarly in the U.S., fewer than 1% of firms have multinational operations (see McKinsey Global Institute, "Growth and Competitiveness in the United States: The role of its multinational companies," June 2010). In India, the percentage of firms that have ventured overseas is estimated to be 0.2% (see address by Shri H R Khan, Deputy Governor of the Reserve Bank of India, at the Bombay Chamber of Commerce & Industry, Mumbai, 2 March 2012. Transcript available at <http://www.bis.org/review/r120306a.pdf>, accessed on August 22, 2014).

In spite of having been oversampled, SOEs and companies in extractive industries represent a minority of the final sample (142 firms and 52 firms respectively). 333 companies, roughly one third, have invested overseas with 525 projects in 104 countries.

Table 4.1 compares the sectors represented by overseas investments in my survey sample and those documented by the MOFCOM registry. To mitigate the concern that my sample is biased by drawing SOEs that are particularly risk-taking, or private firms that are particularly risk-averse, I also compare the risk distribution in my sample to that in the MOFCOM registry. This appears in the final two rows and is measured by the political risk dimension of the International Country Risk Guide (ICRG). To correct for the fact that certain sectors may be inherently associated with higher risk, the statistic in the final row of Table 4.1 corrects for the sectoral distribution of each type of firms' investments. There is no evidence of bias where the risk profile differential is artificially widened between SOE and private firms in my survey sample. In fact, likely because my survey sample contains relatively few central SOEs (only 11 of them), the risk profile differential between SOEs and private firms in the survey is actually smaller than that between central SOEs and other firms in the MOFCOM registry. This makes my estimates below in Section 4.5.3 conservative. To consider similarity in the higher moments of the risk scores, Figure 4.2 plots kernel densities of the ICRG risk rating for the same sets of data. The distributions in my survey and the MOFCOM registry are quite similar, underscoring the representativeness of my sample in depicting the risk patterns of Chinese outbound FDI.

Table 4.1: Sectoral Distribution and Average ICRG Risk Rating:
Investment Projects in Survey vs. MOFCOM

Primary industry or activity	(Central) SOEs		Other companies	
	Survey	MOFCOM	Survey	MOFCOM
Agriculture, fisheries, and forestry	1.4	9.0	5.3	6.1
Oil, gas, and mineral extraction	15.3	9.6	9.0	8.1
Manufacturing	33.3	4.2	25.6	16.8
Utilities	6.9	1.4	3.3	0.2
Construction	8.3	16.6	4.7	3.9
Transportation and logistics	2.8	3.3	1.0	1.5
Information technology	2.8	1.0	5.7	1.4
Trade	13.9	15.6	22.9	31.4
Hospitality	0.0	0.1	0.3	0.6
Finance	0.0	0.1	0.0	0.0
Real estate	1.4	0.4	1.3	1.2
Research and technical services	2.8	5.1	4.0	2.6
Other	11.1	33.6	17.0	26.2
Average ICRG risk score	0.283	0.107	0.339	0.376
ICRG risk score, by industry group before averaging	0.306	0.322	0.364	0.463

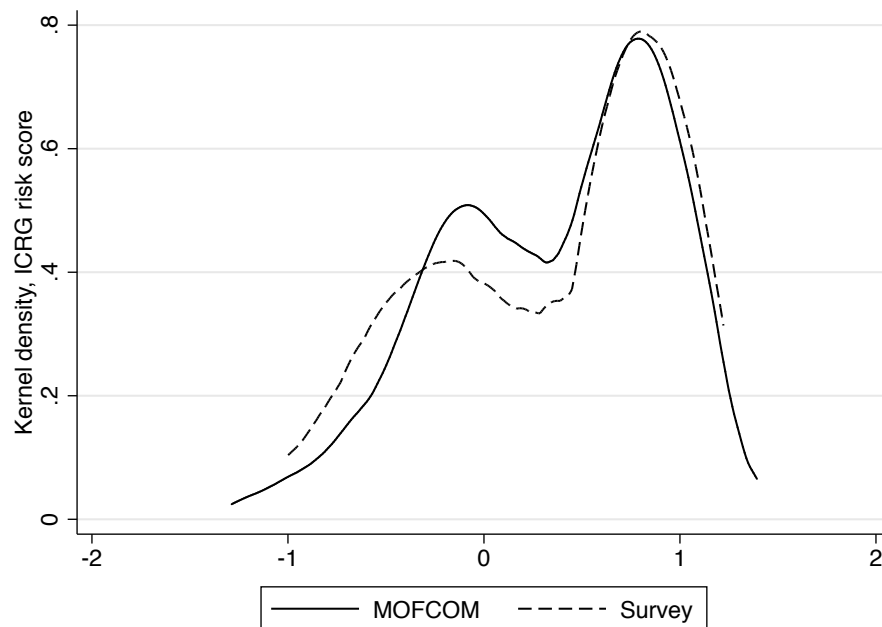


Figure 4.2: Kernel Densities of ICRG Risk Rating for Projects in Survey vs. MOFCOM

The survey poses a number of questions regarding firms' primary motivations for investing overseas. Respondents are asked to rank, on a Likert scale from 1 from 5, the extent to which their overseas investment decisions were influenced by China's bilateral trade and investment agreements with host countries, by China's Go Out policy, and by host country policies. These measures allow me to control directly for the differential influence of bilateral agreements and other policies on Chinese SOEs and private companies. The survey also inquires whether the firm receives governmental support for their overseas investments including subsidized loans, preferential access to foreign exchange, and export quotas (quota on exporting production overseas back to China). The first measure in particular captures firms' exposure to preferential financing and acts to some extent as a proxy for firms' access to bailouts. It is, however,

not a perfect measure since firms respond to the anticipation of being bailed out in the event of insolvency and not just the actual funds they may already have received at the point of the survey. It is SOEs' access to "implicit insurance," my theory contends, that alters their risk vs. return calculus when making investment decisions. Not surprisingly, as Table 4.2 demonstrates, SOEs in my survey sample were substantially more likely to obtain preferential policy treatment than private firms.

Table 4.2: Percentage of Firms Receiving Preferential Treatment

Type of support	State-owned enterprises	Private	Difference
Loans	29.7 (5.8)	16.7 (2.3)	13.0*** (5.5)
Foreign exchange	15.6 (4.6)	7.4 (1.6)	8.2** (4.0)
Export quota	7.8 (3.4)	1.5 (0.7)	6.3*** (2.2)
Overall	51.6 (6.3)	39.0 (3.0)	12.5** (6.8)

Standard errors in parentheses. Differences: *** p<0.01, ** p<0.05, * p<0.1

4.4.3 Additional Data

In addition to the two previously-unexplored data sources on Chinese outbound FDI above, I also use data on Chinese elites' diplomatic meetings with foreign dignitaries as a proxy for the intensity of bilateral ties. I construct a novel dataset of leadership meetings from entries in China Vitae, an online database that contains

detailed biographical records and activity schedules for China's elite politicians.²⁰ The activity schedules contain detailed information, including the time, location, attendees and purpose of meetings. I extract a subset of these, meetings between Chinese politicians and foreign dignitaries, to use as a measure for diplomacy efforts. The records capture the diplomatic activities of a total of 256 Chinese elite politicians over a ten-year span. The total number of diplomatic meetings from 2003 to 2012, which happens to coincide with the Hu Jintao Administration, is 11,857.²¹

Throughout this chapter I also use the political risks table (ICRG Table 3B) published by the International Country Risk Guide (ICRG) to measure risk level in host countries. ICRG political risks contain twelve dimensions, constructed on a 4-, 6-, or 12-point scale.²² A higher score means less risk. I standardize and take the mean across twelve dimensions to arrive at a total, composite measure. In addition to this total measure, I conduct robustness checks using the conflict risk sub-dimensions (an average of internal and external conflict risk scores). Risks of violence and conflicts arguably offer an even more specific test for risk-seeking and rent capture by virtue of being nearly impossible to mitigate.

²⁰ The Diplomatic Meetings Database is constructed in collaboration with Jiahua Yue, Yale University, and Patrick Chester, IR/PS, University of California, San Diego. For a more detailed description of this data, see Shi and Yue (2014).

²¹ In this database cadres are ranked at four levels in descending order of authority: the premier leader (Hu Jintao), politburo standing committee (PBSC) members, politburo members, and the central committee (containing both full and alternate members). The data capture diplomatic activities for all elite politicians and not just the head of state. This approach is innovative in the leadership visit literature and more suitable for the purpose of this paper: meetings facilitating commercial activities often happen between ministers or even provincial cadres and their counterparts in foreign countries, without involving the head of state. For additional robustness I also consider a subset of meetings including only PBSC members. The empirical results are similar.

²² The twelve dimensions are governmental stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tension, law and order, ethnic tension, democratic accountability, and bureaucracy quality.

4.5 Models and Results

In this section I present three models and results: 1) a difference-in-differences model that exploits the timing of China's Go Global strategy; 2) a dyadic country level model that captures SOEs' attraction to risks after controlling for host countries' resource endowments and ties to China, and 3) a firm-level logit model that explicitly models firm decisions. Taken together, these models not only provide convincing evidence for the presence of rent capture but also illustrate the specific mechanism through which capture occurs.

4.5.1 Difference in Differences: Exploiting Policy Timing

As Section 4.1 describes, a national strategy, "Go Global," underscores China's outbound investments. The timing of this strategy offers an opportunity to explore the differential impact of policy incentives on SOEs and private firms' investment behaviors. Although the strategy was formulated in 2000, concrete policy benefits were rolled out later. It was not until the mid 2000s that many earmarked subsidies, mechanisms for preferential financing, and deregulatory measures were put into place. For example, the Special Fund for Overseas Exploration of Mineral Resources was implemented in 2005.²³ 2004 and 2005 also saw a series of notices and decisions by China's National Development and Reform Commission (NDRC), Sinosure, China EXIM, and Ministry of Finance to provide credit support and insurance for "strategic"

²³ The managerial measures for the Special Fund (国外矿产资源风险勘查专项资金管理行办法) were issued by China Ministry of Finance in October 2005.

overseas investment projects.²⁴ These two years also saw liberalizing changes in the regulatory protocols governing enterprise investments and outbound FDI.²⁵ Beginning in 2004, the State Administration of Foreign Exchange (SAFE) has also gradually relaxed limits on firms' purchases and retention of foreign currencies.²⁶

Figure 4.3 portrays the patterns in the issuance of governmental regulations and notices on the subject of outbound FDI (OFDI). These regulations and notices are obtained by systematically searching for OFDI-themed key words on ChinaLawInfo.com (a.k.a. *Beida Fa Bao*), a legal research platform, and supplementing and cross-validating with searches on the web sites of relevant governmental agencies.²⁷ A total of 133 such documents are collected and then coded into four main functional areas: 1) “decisions” and “comments” that involve high-level strategic planning of OFDI; 2) regulations that pertain to the approval, monitoring, and reporting of OFDI projects; 3) decisions to provide or institutionalize concrete policy incentives in support of OFDI (special funds, credit provision etc.); and 4) decisions to provide services (e.g. provision of host country information and industry analyses). Document issuance by

²⁴ For example, see “关于进一步加强对境外投资重点项目融资支持有关问题的通知” by the NDRC and China Development Bank in 2005; “关于建立境外投资重点项目风险保障机制有关问题的通知,” NDRC and Sinosure in 2005; and “关于对国家鼓励的境外投资重点项目给予信贷支持政策的通知,” NDRC and China EXIM in 2004.

²⁵ In July 2004 the State Council released its “Decision on Reform of the Investment System” (关于投资体制改革的决定), which marked a significant change in how enterprise investments were governed in China, moving from an approval-based system (审批制) to a system based on authentication (核准制) and registration/archiving (备案制). This systematic reform applied to domestic as well as overseas investments (Yu and Jiao, 2011).

²⁶ See SAFE (国家外汇管理局), 《关于跨国公司外汇资金内部运营管理有关问题的通知》 released on October 18, 2004.

²⁷ The key words used are “对外投资”, “对外直接投资”, “境外投资”, “境外直接投资”, and “海外投资”. Governmental agency websites include the websites of MOFCOM, NDRC, and SAFE. The search, compilation, and coding of the documents was completed jointly with Guo Ruolu, MPA, Tsinghua University School of Public Policy and Management.

function and by year is shown in Figure 4.3. It is easy to see that 2005 is the peak year for the introduction of incentives (shown in black), followed closely by 2006.

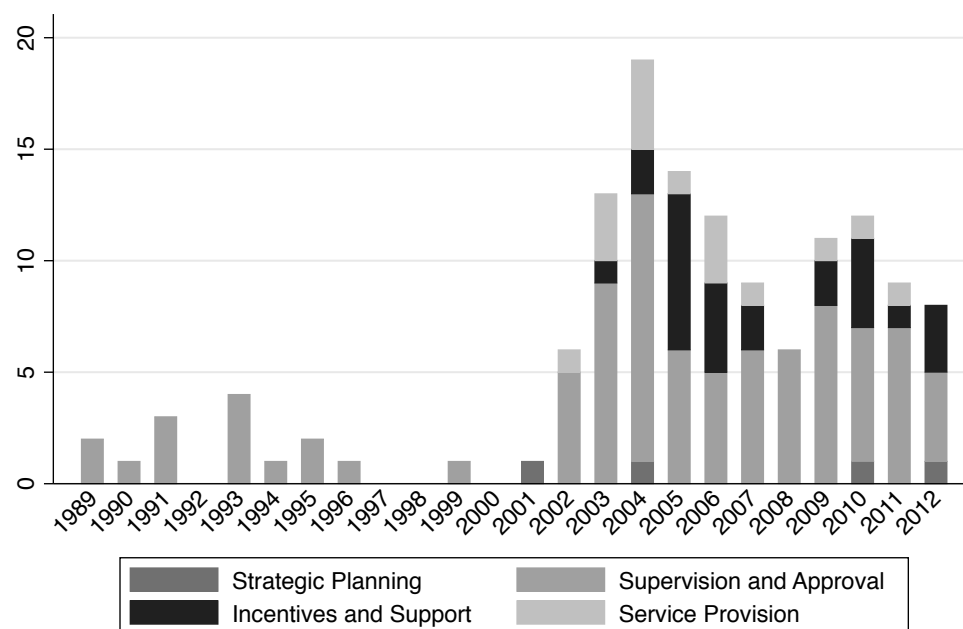


Figure 4.3: Outbound FDI Policies Issued by Function and Year

Next I consider investment decisions, shown in Figure 4.4, in conjunction with the policy changes above. Figure 4.4 visualizes rather strikingly the differential impacts of incentives on firms of different ownership status. The figure plots the average standardized ICRG score for central SOEs' overseas projects vs. other firms' overseas projects over a period of sixteen years (eight years before and after 2005 respectively). All investment projects recorded in the MOFCOM registry between 1996 and 2012 are included in the figure. The light gray shading and dashed lines mark the 95% confidence intervals for the central SOEs' and other firms' chosen ICRG scores

respectively. The dark gray column represents the short window during which the most policy incentives are implemented. Prior to this intervention, there are no large visible differences in terms of host country risks associated with central SOEs' investments vs. those of other firms. After the intervention, however, central SOEs appear to invest in significantly riskier destinations than other firms. This change can be tested formally with a difference-in-differences approach, controlling for any pre-policy difference between SOEs and other firms as well as allowing individual year fixed effects. I find that the ICRG scores associated with central SOE investments decreased by 0.32 standard deviations in the post-2005 period (Table 4.3, Column 1) after controlling for pre-2005 differences between firm types as well as year fixed effects.²⁸ Although this result cannot definitively establish rent capture, it is strongly suggestive. SOEs' increased appetite for risks coincided closely with the time when the government began to dole out policy incentives programmatically, and when companies were given more autonomy in making investment decisions.

There is, of course, still the concern that the increase in destination country risks is caused purely by SOEs' seeking natural resources. SOEs finding resources among these risky hosts may be precisely what is ordered by the Chinese leadership and the policy perks only enable them to do so. To be conservative, in Column (2) of Table 4.3 I therefore limit the sample to exclude projects in oil, gas, and minerals extraction. The result remains highly significant with a comparable, if not greater, magnitude: after

²⁸ The estimate is obtained by regressing project-level ICRG scores on a central SOE indicator, an indicator for post-2005, and the interaction of the two dummy variables (providing a control for any pre-existing differences and isolating the policy's effect on SOEs). Year fixed effects absorb any annual changes in risk common to all firms.

2005, compared to other firms, central SOEs invested in non-extractive projects associated with ICRG scores that were 0.35 standard deviations lower than in the same comparison before 2005. In Column (3), I restrict the sample further to exclude projects in construction, agriculture, power generation (utilities), and technical services. These exclusions mitigate the concern that projects in infrastructure, agriculture, and (hydro)power development are sometimes tied to Chinese foreign aid and that SOEs may be acting as instruments for China's economic statecraft. Technical services are also excluded from this column due to the concern that they may be offered in conjunction with infrastructural development; exploration services, which are tied to extractive projects, also fall in this category. The results in Column (3), however, are

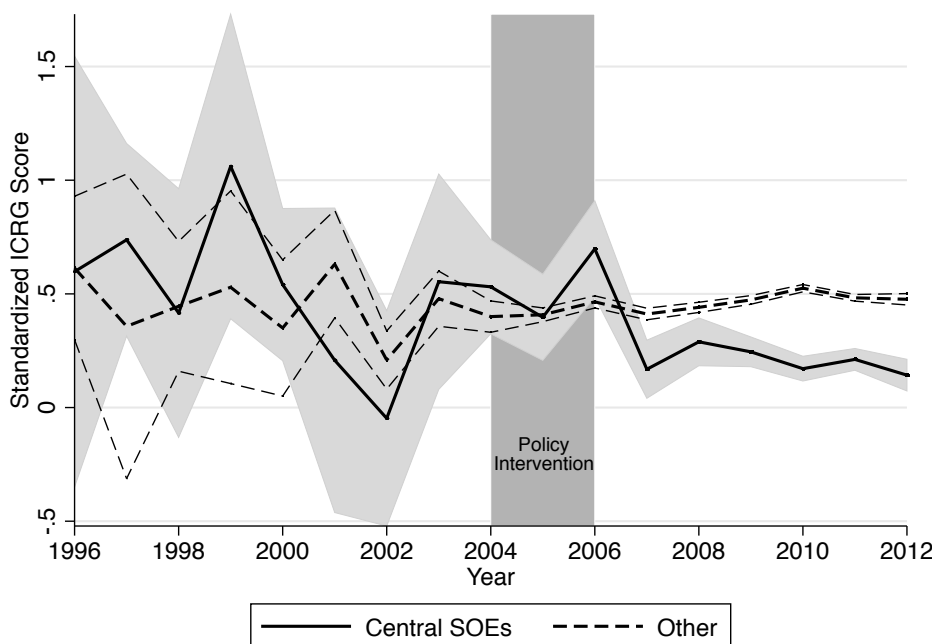


Figure 4.4: ICRG Risk Ratings Associated with Central SOE Projects vs. Other Firms

Table 4.3: Difference-in-Differences Estimates, ICRG Risk Ratings Pre- and Post-2005

	(1)	(2)	(3)	(4)
	All Projects	Excluding Extractive	Excluding Aid- Related	Light Manufacturing Only
Central SOE	0.0452 (0.0609)	0.0482 (0.0618)	0.170** (0.0687)	0.149 (0.228)
Post-policy	-0.135 (0.154)	-0.121 (0.151)	-0.158 (0.163)	-0.396 (0.383)
SOE*Post-policy	-0.320*** (0.0626)	-0.353*** (0.0635)	-0.456*** (0.0710)	-0.346 (0.231)
Constant	0.608*** (0.153)	0.607*** (0.150)	0.602*** (0.163)	0.651* (0.382)
Year fixed effects	Y	Y	Y	Y
Observations	18,681	17,553	14,994	4,261
R-squared	0.024	0.029	0.024	0.018

*** p<0.01, ** p<0.05, * p<0.1

even more strongly significant: after 2005, central SOEs' non-extractive and presumably non-aid related projects are associated with ICRG scores that are 0.46 standard deviations lower than those before 2005. In Column (4) I apply a still more stringent restriction by limiting the sample to only one subsector, light manufacturing (for example a copper smelter plant would not be included). Due to the much smaller sample size (only 216 central SOE projects fall in this category during the analysis period), the pre- and post-policy difference is just short of being statistically significant ($t=-1.50$), but the sign on the coefficient is consistent with previous specifications and the magnitude remains comparable at -0.35 standard deviations post policy intervention.

4.5.2 Country-Level Dyadic Model

In this section I continue to rely on the MOFCOM registry data, but model the patterns in China's outbound FDI more structurally with a dyadic "gravity" model. This specification has the advantage of being able to explicitly control for country-level covariates so that one can capture more transparently the extent to which elite preferences may have impacted firms' choice of investment destinations. As the MOFCOM registry data offer no firm or project-level covariates other than ownership and investment sector, I first aggregate all central SOE projects and all non-central SOE projects by destination country and year. In so doing I am essentially pooling all sectors together; later I will consider subsets containing only certain sectors. I estimate a random effects model due to the presence of time-constant dichotomous variables (e.g. the distance between countries). In Equation 4.1, a_i and b_t represent dyadic random effects and time fixed effects respectively, and u_{it} is the error (i represents country; t represents year):

$$\begin{aligned}
 OFDI\ Projects_{it} = & \\
 & \beta_0 + \beta_1 GDP_{it} + \beta_2 Distance_i + \beta_3 Crude_{it} + \beta_4 Resource\ Rents_{it} + \beta_5 Autocracy_{it} + \\
 & \beta_6 Diplomatic\ Meetings_{i,t-1} + \beta_7 ICRG\ Risk\ Rating_{it} + \beta_8 OFDI\ Projects_{i,t-1} + \\
 & a_i + b_t + u_{it}
 \end{aligned} \tag{4.1}$$

I estimate equation (4.1) as a Poisson model (reflecting the discrete counts of projects in the dependent variable) with random effects at the individual country level. The independent variable of interest is the ICRG Risk Rating, which is measured by the

standardized ICRG political risks rating averaged across twelve subcomponents (be reminded that a lower value indicates worse risk rating and higher risk). The right-hand side variables GDP and the Distance between capitals are controls reflecting the standard gravity model of trade and are obtained from the World Development Indicators (WDI) and the CEPII GeoDist database respectively. To measure natural resource endowments in a given host country, I rely on measures for crude oil export published by the US Energy Information Administration and natural resource rents calculated by WDI, which include rents not only from oil, but also derived from coal (hard and soft), minerals, and forest resources as a share of the country's GDP. These two variables capture the extent to which Chinese FDI is driven by resource investments. As such, they also provide control for the possibility that central SOEs appear to be drawn to riskier destinations merely because they are implementing the state agenda to ensure energy security and raw materials supply. The Diplomatic Meeting variable, lagged by one year, offers control for the extent to which firms' behaviors are influenced by China's bilateral ties. As discussed in Section 4.2, bilateral relations matter in two ways: First, they reflect the Chinese government's investment priorities. Chinese leaders' state visits often entail signing MOUs and committing to large numbers of investments. If Chinese SOEs are faithful agents of the state, they will follow the lead of the elites. Second, strong bilateral relations could reduce the effective risks facing investors and SOEs could benefit disproportionately. Finally, the variable Autocracy provides an additional control for potential affinity. All non-dichotomous right hand side variables are standardized before the model is estimated.

I estimate several versions of the model and present the results in Table 4.4. All models are estimated with robust standard errors. Model (1) estimates all Chinese OFDI projects as the dependent variable; Model (2) estimates non-central SOE OFDI projects; and Model (3) estimates only central SOE projects. Models (4) through (6) are equivalent to Models (1) through (3) except that, instead of considering all pillars in the ICRG political risk, they look in detail at the risks of conflicts as the right-hand-side variable. With the Chinese government lacking the capacity to project power, conflict risks are difficult to mitigate even for SOEs. Models (4) through (6) could therefore provide a stronger test for risk-seeking behaviors. Following Li and Liang (2012), Models (7) through (9) incorporate an additional control, lagged OFDI projects, to account for potential unobservables shaping FDI.

I find that Chinese FDI projects do generally reflect state preferences and that the estimates are robust across the three specifications. From Models (1) to (3), we see that natural resource endowments are a key driver of Chinese investments and that central SOE projects are driven primarily by crude oil. This finding is consistent with the ownership distribution in China's resource sector: while the oil industry is dominated by national oil companies, firm ownership status is much more diverse in the minerals sector.²⁹ One standard deviation increase in a host country's crude export increases the number of Chinese central SOE investments in that country by around 22% (Column 3). A standard deviation increase in natural resource rents in general is not correlated with an increase in central SOE projects, but it is associated with nearly 24% of increase in investments by all other firms (Column 2). Diplomatic visits have a

²⁹ See Shi (2014) Table 2.

positive impact on FDI made by both central SOEs and other firms. Consistent with expectations, the magnitude of the effect is stronger for central SOEs. Increases in diplomatic meetings with dignitaries in the host country in the previous year increase central SOEs' investments by 11%, but only by 6% for other Chinese firms (Columns 3 and 2). The results are robust to the alternative assumptions made in Models (4) to (9), with similar parameter estimates in all cases. Central SOEs appear to follow closely the diplomatic activities of China's elites and play a key role in securing oil supplies overseas.

Importantly, my results also show that SOEs are not perfect instruments of the state. Evidence for excessive risk-taking and rent capture can be found in the coefficient on ICRG ratings. Here, the behaviors of central SOEs set them apart from other firms. After controlling for host country resource endowments and diplomatic ties with China, Chinese investments in general are drawn to host countries with higher ICRG ratings. That is, the average Chinese investor is averse to host country risk. Each standard deviation improvement in the host country ICRG risk rating is associated with a 23% increase in the number of Chinese investments overall (Column 1). Central SOE investments, on the other hand, are risk seeking. Each standard deviation *decline* in the host country ICRG risk rating leads to an increase in the number of central SOE investments by 21% (Column 3). Note that, when I substitute ICRG average risk ratings with ratings for conflicts, the magnitude of the coefficient increases even further to 40% for central SOEs (Column 6). These results demonstrate that central SOEs are attracted to higher host country political risks even after controlling for the preference and intent of the state, which is precisely what my rent capture hypothesis predicts.

Table 4.4: Country Level Dyadic Models, Poisson

	(1)	(2)	(3)	(4)	(5)	(6)
	All Projects	Non Central SOE Projects	Central SOE Projects	All Projects	Non Central SOE Projects	Central SOE Projects
Host Country GDP	0.157*** (0.0330)	0.190*** (0.0351)	0.155* (0.0849)	0.171*** (0.0318)	0.204*** (0.0344)	0.112 (0.0766)
Distance	-0.441*** (0.0844)	-0.473*** (0.0854)	-0.216** (0.0966)	-0.457*** (0.0813)	-0.490*** (0.0845)	-0.208** (0.0945)
Crude Oil Export	0.0629 (0.0536)	0.0430 (0.0545)	0.227** (0.0980)	0.0625 (0.0544)	0.0331 (0.0557)	0.224** (0.101)
Resource Rent	0.183*** (0.0517)	0.235*** (0.0541)	-0.0877 (0.123)	0.170*** (0.0511)	0.230*** (0.0541)	-0.0411 (0.102)
Autocracy	0.115 (0.180)	0.0825 (0.189)	0.0980 (0.325)	0.101 (0.175)	0.0676 (0.185)	0.118 (0.312)
Lagged Diplomatic Meetings	0.0566*** (0.00944)	0.0564*** (0.00963)	0.108** (0.0499)	0.0604*** (0.00965)	0.0596*** (0.00986)	0.111** (0.0499)
ICRG Risk Rating (Higher is less risky)	0.233*** (0.0627)	0.236*** (0.0642)	-0.211** (0.105)			
Conflict Risk Rating (Higher is less risky)				-0.0731 (0.0654)	-0.0425 (0.0686)	-0.399** (0.156)
Observations	647	647	647	699	699	699
Number of random effects	112	112	112	121	121	121

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4.4 (continued): Country Level Dyadic Models, Poisson

	(7)	(8)	(9)	(10)	(11)	(12)
	All Projects	Non Central SOE Projects	Central SOE Projects	All Projects (Light Manufacturing)	Non Central SOE Projects (Light Manufacturing)	Central SOE Projects (Light Manufacturing)
Host Country GDP	0.152*** (0.0403)	0.168*** (0.0426)	0.122 (0.0789)	0.319*** (0.0677)	0.344*** (0.0709)	0.175* (0.102)
Distance	-0.449*** (0.0875)	-0.483*** (0.0914)	-0.208** (0.0907)	-0.498*** (0.0892)	-0.518*** (0.0925)	-0.148 (0.122)
Crude Oil Export	0.0346 (0.0532)	0.0136 (0.0550)	0.208** (0.0858)	0.231*** (0.0767)	0.222*** (0.0793)	0.164** (0.0735)
Resource Rent	0.189*** (0.0535)	0.238*** (0.0562)	-0.0965 (0.120)	0.0649 (0.0841)	0.105 (0.0878)	0.129 (0.162)
Autocracy	0.0687 (0.185)	0.0345 (0.196)	0.0468 (0.302)	0.140 (0.242)	0.155 (0.250)	-0.0649 (0.392)
Lagged Diplomatic Meetings	0.0559*** (0.0105)	0.0533*** (0.0107)	0.0836 (0.0521)	0.0507*** (0.0189)	0.0475** (0.0191)	0.0682 (0.106)
ICRG Risk Rating (Higher is less risky)	0.247*** (0.0646)	0.255*** (0.0669)	-0.222** (0.0978)	0.0632 (0.0894)	0.0674 (0.0918)	-0.283** (0.125)
Conflict Risk Rating (Higher is less risky)						
Lagged OFDI Projects	3.95e-05 (0.000284)	0.000214 (0.000294)	0.00126 (0.00131)			
Observations	527	527	527	647	647	647
Number of random effects	101	101	101	112	112	112

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

I conduct several additional checks to corroborate my findings. First, I estimate Models (1) through (9) using a negative binomial model instead of Poisson. The results, reported in Appendix 4B, are very similar to those generated by the simpler Poisson specification. Second, I restrict the count of projects to only the light-manufacturing sector and re-estimate the models using only that subset, reporting the results in Columns (10) through (12) of Table 4.4. I adopt a restrictive scope for manufacturing, excluding manufacturing projects that may be downstream from extractive industries. Interestingly, central SOEs' manufacturing investments show no correlation with Chinese elites' diplomatic activities, while Chinese manufacturing investments on the whole continue to show a link. Meanwhile, central SOEs' manufacturing investments are still attracted to higher host country risks (at a magnitude of 28% increase in the number of manufacturing projects per standard deviation decline in the ICRG rating, Column 12), again consistent with the rent capture hypothesis.³⁰

4.5.3 Firm-Level Logit Model

The MOFCOM registry identifies few firm-level covariates other than the firm's ownership status and project sector. As noted above, this is less than ideal since firm-level characteristics could confound the hypothesis at hand. For example, firm size may be an important predictor of risk tolerance, with larger firms being more resilient against host country risks. In addition, even though the gravity model above offers

³⁰ Chinese manufacturing projects in general, however, are indifferent toward host country risks. Note that above, when estimating the models without imposing sectoral restrictions, I find Chinese investments overall are actually averse to risks in host countries. These contrasting findings make intuitive sense: Manufacturing projects ought to be less sensitive to host country risks due to greater asset mobility.

some control for sectoral bias and bilateral relations in the aggregate sense, we had no direct measure at the firm level. Not all SOEs are resource seeking, for example, and the gravity model cannot take such firm-level variation into account.

In this section I therefore turn to the 2013 CODIS survey data in order to model firm choice explicitly. The survey data has an additional advantage, which is that I know which firms actually receive preferential financing tied to outbound investments (see data description in Section 4.4.2). Recall that my theory postulates rent capture occurs when SOEs take advantage of policy perquisites and count on bailouts. While a firm's current receipt of preferential financing does not perfectly measure its anticipation of a bailout, it does provide a proxy. The survey data thus allows me to test the mechanism of rent capture more directly.

In this firm-level model, the dependent variable is a firm's probability of having selected a certain country (or countries) as it contemplates where to invest. The dataset is thus constructed as the universe of all possible firm-country pairs; a pair is assigned a value 1 if a firm chooses the country referenced, and zero otherwise. The right-hand side consists of interactions between firm-level covariates and the host country's ICRG rating. I estimate a logit model with country fixed effects. Intuitively, the inclusion of country fixed effects controls for any country-specific factors (e.g. GDP, distance, regime, ICRG rating) that determine the country's probability of being chosen by *any* firm. The interaction terms capture the marginal effects of firm characteristics on the firm's probability of selecting a country with a certain risk rating. In other words, this specification controls for all factors present in the dyadic models above as well as any

unobserved factors that vary at the country level. I can then focus exclusively on examining the influence of firm-level covariates.

The results appear in Table 4.5. As before, the ICRG rating variable has been standardized for ease of interpretation and the other variables have been de-meanned. The key coefficients of interest are the interactions between firm-level covariates and risk appearing in the lower half of the table. The first coefficient to note is that firms that rate China's bilateral agreements as important to their investment decisions make riskier investments. This suggests that China's bilateral relations could indeed be encouraging investments to go to riskier destinations, whether through the mechanism of policy leadership or via political backing that reduces the effective risk facing firms. Interestingly, being a larger firm does not correlate with investing in riskier destinations. In fact, in the survey sample larger firms are less likely to invest in risky countries, although the effect is relatively small. Curiously, possibly due to their limited number in my sample, neither do resource-seeking firms have greater propensity for risk.

The key finding shown in Table 4.5 is that, even after controlling for potentially confounding effects, being an SOE still significantly increases one's likelihood of investing in a risky destination. In other words, SOEs' risk-taking cannot be fully accounted for by the extent to which their investments are influenced by bilateral agreements, or their focus on natural resources. For every standard deviation decline in a country's ICRG rating, SOEs' probability of investing in that country increases by 27% (Column (1), main specification). Column (2) introduces an additional firm-level variable, measuring whether the company receives preferential financing tied to overseas investments. In this specification, access to financing has a strong effect on

firms' chosen risk level. For every standard deviation of decrease in a country's ICRG rating, firms that receive preferential financing increase their probability of investing in that country by as much as 36% and this effect is highly statistically significant.

Preferential financing is a close relative of bailouts. If hypothetically we had a magical variable that could capture a firm's anticipation of receiving a bailout, my theory predicts that this variable would absorb much of the influence of the firm ownership variable (since I use SOEs as a shortcut for measuring this anticipation). Although preferential financing is not quite this magical variable, it is encouraging that I still find it to subsume some of the SOE effect. The coefficient on the SOE variable is now only significant at the 10% level with a much-reduced magnitude. This lends direct support to my hypothesis that SOEs' anticipation of bailouts contributes to their risk-proneness.

To summarize, my findings from the 2013 CODIS data further corroborate the evidence above using the MOFCOM registry data. Controlling for country fixed effects and a range of firm-level covariates, the results here show that the guiding effects of bilateral agreements cannot fully account for SOEs' riskier investment profiles. On the other hand, firms' access to preferential financing, an imperfect approximation for anticipation of bailouts, is able to partially subsume the effect of state ownership. This finding lends empirical support to the specific conduit of rent capture I propose in this dissertation: SOEs, counting on bailouts in the event of financial duress, hijack state objectives in pursuit of rents by seeking risky investments.

Table 4.5: Firm-Level Logit Models

Probability of having invested in Country X	(1)	(2)
Firm Is state-owned	0.107 (0.144)	0.102 (0.145)
Firm revenue (2012 Estimate, logged)	0.00626 (0.0201)	0.00584 (0.0202)
Importance of bilateral agreements to firm investment decision	-0.00622 (0.0844)	-0.00371 (0.0849)
Importance of home country policy to firm investment decision	0.0551 (0.0828)	0.0482 (0.0837)
Importance of host country policy to firm investment decision	-0.0232 (0.0907)	-0.0196 (0.0905)
Firm is resource-seeking	0.0103 (0.0505)	0.00846 (0.0505)
Firm obtains preferential financing for investing abroad		0.0408 (0.125)
ICRG rating for Country X	(in fe)	(in fe)
Firm Is state-owned * ICRG rating for Country X	-0.273** (0.125)	-0.230* (0.126)
Firm revenue * ICRG rating for Country X	0.0483*** (0.0173)	0.0506*** (0.0174)
Importance of bilateral agreements * ICRG rating for Country X	-0.215*** (0.0720)	-0.215*** (0.0724)
Importance of home country policy * ICRG rating for Country X	0.0240 (0.0705)	0.0560 (0.0712)
Importance of host country policy * ICRG rating for Country X	0.119 (0.0772)	0.118 (0.0769)
Firm is resource-seeking * ICRG rating for Country X	-0.0612 (0.0430)	-0.0590 (0.0432)
Firm obtains preferential financing * ICRG rating for Country X		-0.357*** (0.108)
Country fixed effects	Y	Y

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

4.6 Discussion

In this chapter I have demonstrated through three empirical models that Chinese SOEs, while fulfilling state objectives to a certain extent, also hijack these objectives to seek rents. SOEs' instrumental value is most directly illustrated by the country-level dyadic model, where central SOEs' investments are found to follow closely Chinese

leaders' bilateral activities and global oil reserves. The firm-level model shows further that following China's bilateral agreements does correlate with a firm's investing in riskier destinations. Taken together, these results illustrate SOEs' higher risk tolerance: they take higher risks while fulfilling certain state objectives. However, SOEs are far from perfect instruments of the state. In addition to taking risks as a result of fulfilling policy goals, I show that they also actively seek risks. All three empirical models demonstrate that, even after controlling for various indicators of state intent, SOEs are prone to engaging with riskier host countries relative to private Chinese firms.

My findings make a significant contribution to the debate on how investors from autocracies should be perceived. First, I show that Chinese SOEs' behaviors are markedly different from those of private firms. This study is among the first to give systematic treatment to the diversity within the categorical labels of "emerging investors" and "Chinese investments." Instead of assuming that all Chinese investors are similarly oblivious to political risks or directed by some grand strategy of the Chinese government, I find that there is considerable variation among firms. Second, I find that even China's SOEs cannot be simply regarded as faithful agents of the state. I perform multiple tests arriving at the same conclusion: while SOEs do fulfill policy objectives to a certain extent, they are also motivated by rents. Privileged with policy perquisites and anticipating bailouts, they seek rents by taking on excessive risk when choosing host country destinations, a direct example of moral hazard at work.

Connecting back to the formal theory in Chapter 2, I have demonstrated that the combination of SOEs' policy burdens, commercial autonomy, and lack of public accountability in the political system provide a sure recipe for rent capture. I do not test,

however, whether the Chinese elites are “benevolent” or accomplices in SOEs’ rent-seeking overseas. With additional data collection (for example on the personal political ties of SOE executives), this would make for a fascinating extension. Although I have tested for rent capture only in the case of Chinese investments, the theoretical mechanism I identified in Chapter 2 is neither unique to China and autocracies nor is it unique to overseas investments. It will be informative to also test for the presence of this mechanism among MNCs from developed countries and mature democracies.

It should also be noted that the link I draw between SOEs and their risk-taking overseas adds to but does not preclude other explanations for why emerging MNCs appear to take greater risks when investing overseas. For example, my finding does not invalidate the view that emerging MNCs benefit from a shorter institutional distance to countries with high political risks or are backed by governments that on the whole have better ties to these countries. By taking a subnational approach and making comparisons among Chinese firms, I have held potential cross-national differences constant.

The mechanism I identify, however, does impart novel and important implications for global governance. One common criticism lodged against Chinese investors is that they are not helpful for improving host country governance. Indeed, the “institutional adaptability” hypothesis paints a picture of Chinese companies taking advantage of corrupt bureaucracies in host countries, thereby perpetuating poor governance. The mechanism I demonstrate, however, has more nuanced implications. As I demonstrate in this chapter, implicit insurance is a double-edged sword by design. On the one hand, it imparts higher risk tolerance and allows China’s SOEs to operate in

some of the world's most fragile and volatile areas. Venturing where no other can, they stand to make a significant contribution to stabilizing peaceful relations around the world, albeit without consciously or explicitly pursuing an agenda of global governance (Downs 2012). On the other hand, the elimination of downside risks also encourages rent seeking and excessive risk-taking – the “moral hazard” phenomenon. The freewheeling investment styles of some Chinese corporations may well corner the leadership into a reactive position while the companies themselves have no great incentive to participate in global governance; they can count on elites to clean up after them. I explore China's overseas investments' implications for host countries and international security and governance in Chapter 5.

4.7 Chapter Summary

In this chapter I estimate three empirical models to test for the presence of rent capture by SOEs in the context of Chinese outbound FDI. In the difference-in-differences model, I take advantage of the fact that many policy incentives facilitating Chinese overseas investments were established around 2005. I leverage this division in time to compare the gap between central SOEs' and other firms' risk profiles before and after the implementation of policy incentives. I find that central SOEs invest in significantly riskier destinations after the introduction of incentives compared to other firms during the same time periods. This result persists when I limit the projects examined to non-extractive industries and projects unrelated to China's bilateral aid, suggesting that SOEs may be *seeking* risks for rents instead of *taking* risks mandated by

their policy roles. In the country-level dyadic model, I capture directly the extent to which Chinese investments are driven by host countries' natural resource endowments and bilateral political ties. I find that central SOEs do in part fulfill the state's goal of energy security by investing in oil rich destinations, and that their investments are disproportionately guided by the Chinese leadership's bilateral activities. However, they are attracted to riskier host countries even after controlling for these proxies for state intent; whereas other Chinese firms are averse to host country political risks after controlling for resource endowments and bilateral ties. This finding again lends support to the rent capture hypothesis. It also shows that SOEs do act as agents of the state agenda but that they do so imperfectly, making transgressions to capture rents. Finally in the third firm-level model utilizing original survey data, I am able to directly test for the specific mechanism through which rent accrues. Once I control for the level of policy support a firm obtains (an imperfect proxy for a firm's anticipation of a bailout), the predictive power of being an SOE on the firm's chosen risk level is significantly reduced. This result is obtained after first controlling for the firm's sector of investment and the extent to which its investment decision is influenced by China's bilateral agreements with the host country. The finding lends credence to my postulation that it is the policy perks and anticipation of not being allowed to fail that give China's SOEs the capacity to seek rents.

The empirical results in this chapter offer strong support for my theoretical characterization of Chinese outbound FDI. For China's SOEs, the confluence of their strategic importance for fulfilling policy goals, growing commercial autonomy during China's enterprise reform, and lack of public oversight and accountability in China's

political system has created perfect conditions for rent capture. While SOEs do fulfill state goals to a certain extent, they also hijack policy for their own benefit. Manifested in terms of their choice of investment destinations, Chinese SOEs are both more risk tolerant (i.e. taking the necessary risks to accomplish state objectives) and risk-seeking (i.e. to earn rents) when they invest overseas. This combination has profound implications for host country economic development and China's burgeoning role in international governance, which I address in Chapter 5.

Appendix 4A The 2013 China Outbound Direct Investment Survey (CODIS): Sampling and Survey Implementation

The survey is conducted in cooperation with the China Council for the Promotion of International Trade (CCPIT), a trade body of the Chinese government with an extensive local network and access to firms, and Tsinghua University, who provides the institutional support for establishing contact with CCPIT. The survey began on March 1, 2013, when the sampling list and questionnaires were distributed to CCPIT sub-councils, and was completed at the end of July, 2013, when the last questionnaires were collected from the firms. The data collected in the survey pertain to firms' operations in the calendar year 2012 and prior.

The survey sample is obtained using a stratified random sampling technique. The sample list derives from two separate sampling frames. The first frame is the 2008 Economic Census data compiled by GTA CSMAR (<http://csmar.gtadata.com>), a Chinese academic database provider. I pool together the 2009 data (for the census conducted in 2008) for both listed firms and unlisted firms, which amounts to a total of 348,729 firms. I compare this list of firms with MOFCOM's registry of firms that have already invested overseas (the data merging algorithm is described in Chapter 2). This comparison identifies 0.98% of CSMAR firms as having invested overseas. This percentage is crudely comparable to the percentage of U.S. firms that have invested abroad, which stands at around 1%. The CSMAR sampling frame is then stratified based on the company's size (three brackets are set according to total revenue, with the 40th percentile (around 20 million RMB in annual revenue) and 80th percentile (around 100 million RMB in annual revenue) as cut-off points), industry (whether a company is

engaged in an extractive industry or not), ownership (state-owned vs. other ownership arrangement), and whether the company has already invested abroad (determined by comparison to MOFCOM registry). The proportions are designated to approximate equal proportions such that there is maximum precision when estimating differences across dimensions of stratification (e.g. equal samples of state-owned vs. non-state-owned firms, equal samples of firms in extractive industries vs. non-extractive). In effect, this approach allows for oversampling of firms that are state-owned, larger, in extractive industries, and already invested overseas. The same sampling fractions for each stratum are applied to each province. This sampling frame yields a total of 2,673 firms.

In order to ensure that I sample an adequate number of firms that have already invested overseas, I sample a second set of firms from another sampling frame, which are firms present in the MOFCOM registry but NOT matched to firms in CSMAR. In this registry there are few covariates available, so I only stratify according to (central) state ownership and sector (as defined by the coding algorithm described in Appendix 3A) by equal proportions. This sampling frame yields a total of 501 firms.

The final sampling list consists of 3,174 firms. I subdivide this list into provinces. CCPIT, the partner organization, then distributes the provincial list to the corresponding provincial sub-council. The sub-council manager mails the survey to the addresses of firms provided with the sampling list. Phone numbers and email addresses are used for follow-up. Branch managers are asked to contact only firms on the sampling list. However, as the survey progressed, due to limited response and concerns about the overall sample size, branch managers were instructed that, if they were able to

make contact with firms on the sampling list, they may ask these firms to contact other firms in their industry to fill out the survey. **In other words, firms randomly selected into the original sample may snowball other firms into the sample.**

In spite of the sampling design it should be noted that the final sample can only be considered approximately random. This is because I cannot guarantee that certain local branches of CCPIT did not seek out from the sampling list firms that they were more familiar with. Nor can I know for certain that it is the randomly selected firms in the original sampling list who recruited the additional firms in the final sample: it is possible that CCPIT branch managers shirked by recruiting some firms non-randomly. These caveats are not possible to verify within the organization so, to be conservative, one should only consider the final sample to be approximately random.

Assuming that the sample is only approximately random, I need to consider the possibility that the firms in my sample are better connected with CCPIT than the firms in the general population. Fortunately, the internal validity of my results (comparisons across groups of firms by state ownership) remains intact unless we have a reason to expect that being connected with CCPIT makes an SOE more likely to invest in riskier destinations than it does private firms. In reality, this potential selection bias likely only works against my results: Connection with CCPIT signals less important SOEs but more politically connected private firms (private firms that are larger and better connected with governmental entities). The fact that only 11 central SOEs are present in my final sample further demonstrates that, not surprisingly, China's largest SOEs may not be as bound by their connections with a governmental trade body. That the

risk profiles of “small time” SOEs and well-connected private firms are still significantly different from one another would only strengthen my main conclusion.

Appendix 4B Country-Level Dyadic Models: Negative Binomial

Table 4B.1 displays the results of the dyadic models in the main text (Section 4.5.2) run using a negative binomial specification in place of the simpler Poisson. This introduces an additional parameter to correct for the potential of over-dispersion in the distribution of counts. The results are robust to this more flexible model.

Table 4B.1: Country Level Dyadic Models, Negative Binomial

	(1)	(2)	(3)	(4)	(5)	(6)
	All Projects	Non Central SOE Projects	Central SOE Projects	All Projects	Non Central SOE Projects	Central SOE Projects
Host Country GDP	0.194*** (0.0396)	0.231*** (0.0407)	0.165* (0.0866)	0.203*** (0.0389)	0.238*** (0.0404)	0.117 (0.0774)
Distance	-0.259*** (0.0837)	-0.301*** (0.0833)	-0.212** (0.0968)	-0.272*** (0.0787)	-0.314*** (0.0808)	-0.204** (0.0948)
Crude Oil Export	-0.0344 (0.0533)	0.00253 (0.0575)	0.215** (0.0985)	-0.0185 (0.0507)	-5.16e-05 (0.0550)	0.211** (0.102)
Resource Rent	0.0926 (0.0651)	0.150** (0.0679)	-0.0774 (0.125)	0.0537 (0.0625)	0.116* (0.0672)	-0.0280 (0.105)
Autocracy	-0.151 (0.198)	-0.182 (0.211)	0.106 (0.324)	-0.107 (0.189)	-0.145 (0.201)	0.125 (0.311)
Lagged Diplomatic Meetings	0.0609*** (0.0131)	0.0613*** (0.0130)	0.106** (0.0507)	0.0619*** (0.0138)	0.0636*** (0.0136)	0.110** (0.0505)
ICRG Risk Rating (Higher is less risky)	0.122* (0.0734)	0.128* (0.0736)	-0.228** (0.109)			
Conflict Risk Rating (Higher is less risky)				-0.0496 (0.0851)	-0.0424 (0.0860)	-0.398** (0.158)
Lagged OFDI Projects						
Observations	647	647	647	699	699	699
Number of random effects	112	112	112	121	121	121

	(7)	(8)	(9)
	All Projects	Non Central SOE Projects	Central SOE Projects
Host Country GDP	0.222*** (0.0487)	0.243*** (0.0505)	0.124 (0.0808)
Distance	-0.280*** (0.0862)	-0.324*** (0.0884)	-0.208** (0.0907)
Crude Oil Export	-0.0367 (0.0541)	-0.0147 (0.0584)	0.206** (0.0872)
Resource Rent	0.103 (0.0700)	0.153** (0.0731)	-0.0936 (0.121)
Autocracy	-0.177 (0.206)	-0.231 (0.221)	0.0474 (0.302)
Lagged Diplomatic Meetings	0.0674*** (0.0144)	0.0657*** (0.0146)	0.0833 (0.0523)
ICRG Risk Rating (Higher is less risky)	0.150** (0.0758)	0.163** (0.0773)	-0.227** (0.103)
Conflict Risk Rating (Higher is less risky)			
Lagged OFDI Projects	-0.000383 (0.000359)	-0.000229 (0.000371)	0.00126 (0.00132)
Observations	527	527	527
Number of random effects	101	101	101

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

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Chapter 5

Impact of Chinese Investments on Host Countries

A central puzzle in this dissertation is how China's state and firms interact in the context of Chinese outward FDI. In previous chapters I have explored how this interaction shapes firms' investment decisions: I theorize and demonstrate that Chinese SOEs are driven by both state objectives and market incentives. In this chapter, I investigate Chinese firms' *modus operandi* in host countries, with a particular emphasis on how Chinese firms' connections to the home state mediate the impact of Chinese investments on foreign ground.

As Chapter 1 notes, the impact of Chinese investments on host country development and governance has been subject to much scrutiny and debate. On the one hand, China's economic power provides a much-needed source of capital for sustaining growth and employment, particularly as the West struggles with a prolonged economic slowdown. On the other hand, the perception that Chinese investments are state-driven raises the question of whether the investments are benefiting host countries or merely fulfilling China's strategic goals. Chinese investors have been accused of plundering resources at the expense of local development, violating internationally established standards for labor and the environment, perpetuating corruption, and influencing political outcomes to prop up oppressive leaders.

This chapter draws from original survey data, interview records, and secondary statistics from two host countries – Zambia and Vietnam – to provide nuanced

perspectives on these commonly held beliefs. That China's firms carry state objectives does have important implications for host countries, I find, but these implications need not be negative. My research yields the following main observations: First, Chinese investments do generate local employment, and at a rate no worse than other foreign investments. Chinese SOEs' state backing and commitment to state goals can even make them a more stable source of growth and employment compared to western MNCs. Second, Chinese firms' poor labor and environmental practices are likely exaggerated. Even in the extractive sector in Zambia where Chinese firms have been heavily criticized, a systematic survey of the labor force finds that Chinese firms exhibit no worse labor standards compared to their western counterparts. Interview evidence, however, suggests that inspections and allegations may disproportionately target Chinese firms due to their higher propensity to pay to make problems go away. This willingness to pay is arguably a byproduct of being financially unconstrained. Third, firm-level survey data indicate that Chinese firms do pay more informal payments to host governments to facilitate business transactions. However, these payments do not appear to offer Chinese firms a competitive edge. Chinese firms are given similar treatment and services to those routinely given to western MNCs without informal payments. When dealing with corrupt bureaucracies, Chinese firms may be the victim of their own cash-rich image and foster a higher demand for bribes. Fourth, in spite of acting in some ways as instruments of the Chinese state, Chinese SOEs do not seem to play an active role in shaping local electoral outcomes. Neither do they interfere with policymaking in host countries nor do they lobby actively for policy change. Instead, SOEs' commitment to state goals and their ample access to financial support from

China allow them to function in the face of political and policy uncertainties while adhering to China's diplomatic stance of non-interference. The fear is likely overblown that MNCs from an autocracy like China are bound to compromise the political sovereignty of host countries.

Evidence in this chapter paints a multi-faceted picture of Chinese firms' operations. In addition to the observations above, I find that, compared to their western counterparts, Chinese firms generally have a lower degree of localization. This maintenance of autonomous Chinese operations may suggest eagerness to claim credit with home authorities; but these behaviors are also common for firms new to global expansion. The nature of state and firm interaction provides substantial leverage for explaining what sets Chinese MNCs apart, but it would be overreaching to attribute all differences to the looming shadow of the Chinese state.

5.1 Zambia

The case of Zambia is illuminating for several reasons. First, Zambia constitutes a "least likely" case for identifying the beneficial effect of Chinese investments beyond resource extraction. Copper mining is Zambia's backbone industry and the main draw for foreign capital. If I still find that Chinese investments generate employment and growth in such an extractive environment, I have made a fairly strong case. Second, Zambia is home to investors from diverse nationalities in the same sector, mining. It provides an excellent venue for comparing the operations of Chinese investors to investors from other countries. I have the chance to observe the extent to which

Chinese MNCs' behaviors depart from prevailing practices of western multinationals in terms of employment generation, corporate social responsibility, and reaction to market uncertainty. Third, Zambia experiences significant electoral and policy uncertainty. Its highly internationalized mining sector is also susceptible to market fluctuations. These events provide opportunities to illustrate the muted effect of risks on firms' operations when they possess state support.

5.1.1 Sectoral Focus and Employment Generation

FDI has played a significant role in Zambia's economy since the 1990s,¹ and a significant driver of FDI is the country's mining sector. Until recently, Zambia was the largest African copper producer and the 7th largest in world refined copper production (3.3% of global output in 2009).² The sector accounts for roughly 70% of exports and is operated mainly by multinational corporations. According to data provided by the Zambian Development Agency,³ China, India, Britain, South Africa, and the United States are the top five foreign investors during the period 2006 to 2012, measured by

¹ After a brief trough during the global financial crisis in 2008, capital inflow rebounded quickly and again set new highs. FDI inflows averaged \$651 million for the period 2002 to 2009, with a peak in 2007 at \$1.3 billion. In 2014 Zambia attracted \$2.4 billion in FDI, compared to \$1.8 billion in 2013. Foreign firms contributed to the majority of investments. Investment pledges continue to rise, with total investment pledges by ZDA-licensed companies for 2008 reaching \$10.4 billion, 95 per cent of which is FDI (UNCTAD, 2011).

² In 2013, the DRC overtook Zambia to become Africa's largest copper producer.

³ The creation of the Zambia Development Authority in 2006 paved the way for a centralized and rationalized management of investment facilitation and promotion functions. It also provided for a generous incentive scheme for investors and endorsed the development of multi-facility economic zones (MFEZ). The first MFEZ, the Chambishi multi-facility economic zones located in the Copperbelt region, was established by the China Nonferrous Metals Corporation. The ZDA board screens all investments for which incentives are requested and typically makes its decision within 30 days. The reviews appear routine and non-discriminatory and applicants have the right to appeal the investment board decisions. The ZDA board consists of 16 members, including representatives from various government and private sector stakeholders (UNCTAD, 2011).

pledged project counts (Table 5.1). China tops the list with 260 approved projects. Measured by investment amount (not shown), the other frontrunners are slightly different with the inclusion of Canada and Ireland,⁴ but China still ranks first with 5.7 billion USD. This accounts for more than 20% of all foreign investment in Zambia during this period. In this time frame China also accounts for the most pledged employment for the local population. Pledged employment per million dollars of investment, a crude measure for the efficiency at which jobs are generated, is slightly lower for China (around 39.7 persons/million USD) compared to the United States, South Africa, and Britain, but the figure is higher than that for Indian and other foreign investors.

Table 5.1: FDI Flows into Zambia: Summary and Pledged Employment per Million USD

Source country	Number of projects	Pledged employment (thousands)	Pledged employment per million USD
China	260	22.1	39.7
India	170	18.5	37.7
Great Britain	156	18.2	41.5
South Africa	146	9.1	42.6
United States	43	4.3	45.8
All other	441	54.8	36.4
Total	1216	126.9	39.4

Foreign investments in Zambia, 2006-2012.

⁴ Canada owns First Quantum, one of the largest mining firms in Zambia. The Copperbelt Energy Corporation is majority owned by the Zambia Energy Corporation (Ireland) Ltd.

Breaking down investments by sector (Table 5.2), I find that the majority of Chinese investment (66%), measured by the amount of investment, is in energy and mining. With the exception of South Africa, this percentage is in fact higher for most other major investors. 90.4% of American investments and 75% of Indian investments are directed to energy and mining. Chinese investors seem no more focused on the natural resource sector than other foreign investors. Almost 30% of Chinese investments are in manufacturing, compared to only 16% of Indian investments and less than 2% of American investments. The only country that directs more investments to manufacturing is South Africa (34%). Manufacturing is widely regarded as a primary source of employment. The perception that Chinese investments plunder resources without generating jobs for the population appears untrue in the case of Zambia, a country that is predominantly known for its copper reserves.

Table 5.3 presents the level of employment generation by foreign investor by sector. Among all jobs Chinese investors have pledged to generate, the largest number

Table 5.2: Investments in Zambia by Sector (as a Percentage of Total Invested)

Source country	Agriculture	Construction	Energy and Mining	Manufacturing	Other
China	0.5	1.6	66.0	28.0	3.9
India	4.3	0.7	75.0	16.2	3.8
Great Britain	2.6	0.5	66.4	19.1	11.4
South Africa	15.5	1.7	19.4	33.5	29.9
United States	6.9	0.1	90.4	2.0	0.6
All other	3.6	2.1	57.2	18.5	18.5
Total	4.0	1.4	64.6	18.9	11.1

Rows sum to 100 and indicate sectoral composition of investment for each source country, and overall.

Table 5.3: Employment per Million USD Invested, by Sector

Source country	Agriculture	Construction	Energy and Mining	Manufacturing	Other
China	51.0	73.0	13.0	40.5	27.9
India	65.7	40.2	12.2	42.0	31.2
Great Britain	103.6	50.8	16.4	31.0	29.5
South Africa	75.4	19.6	37.5	41.1	34.4
United States	83.8	99.9	9.4	39.1	22.9
All other	70.7	36.0	13.4	41.7	30.1
Total	71.3	54.1	14.2	40.0	28.9

is not surprisingly in manufacturing. Chinese investors appear to be particularly efficient at generating employment in the construction industry. For every million dollars of investments in construction, 73 local employment opportunities are pledged, significantly higher than the levels pledged by British and Indian investors.

It should be noted that employment per million dollars of investment is a crude measure. A high value indicates at least two possibilities: (1) The mode of production is labor intensive, which is why this value is on average much higher for manufacturing than for resource extraction, a capital intensive industry. When the value differs across establishments within the same industry, however, it suggests differing production technologies. If Chinese companies tend to adopt more labor intensive production technologies compared to other foreign investors, we would expect that they on average register a higher employment level given the same amount of investment. (2) Higher local employment generated could also indicate a higher degree of localization. This is, however, unlikely the case for Chinese investors. As I will demonstrate in Section 5.1.3, although the perception that Chinese investors bring Chinese laborers *en masse* is

grossly exaggerated, Chinese firms are indeed much less likely to hire local Zambians for managerial positions.

The employment data presented so far are pledged values at the time of investment application. A notable concern is whether implementation rates match pledged levels. Brautigam and Tang (2009) for example find that, in spite of the presence of intergovernmental MOUs, a large number of Chinese investment projects in African agriculture fail to materialize. To mitigate this concern I analyze inspection records from the research department of the Zambian Development Agency. The records pertain to companies that obtained licenses between 2007 and 2009. Albeit based on this small sample, Table 5.4 demonstrates that Chinese firms on average exhibit one of the highest employment implementation rates (84%) among all foreign investors. British and Zimbabwean investors registered similar rates of implementation above 80%, whereas Indian investors only implemented 59% of the pledged

Table 5.4: Implemented Employment as a Fraction of Pledged Employment, by Source Country and Sector

Source country	Country-level employment implementation	Employment implementation by sector				
		Agriculture	Construction	Energy and Mining	Manufacturing	Other
China	0.84	-	0.86	0.39	1.19	0.72
Great Britain	0.83	0.51	-	-	1.29	0.68
India	0.59	0.79	1.00	0.54	0.54	0.63
Lebanon	0.53	-	0.58	-	0.26	0.74
Nigeria	0.40	-	-	-	0.17	0.63
South Africa	0.89	0.54	-	0.83	0.69	1.06
Zimbabwe	0.81	0.97	-	-	1.11	0.66
All other	0.76	0.39	0.89	0.33	1.25	0.65

Values are implemented employment divided by pledged employment. "-" indicates no projects in cell.

employment during this period. Tabulated by sector, Chinese firms achieve a lower rate of employment implementation in the mining sector (39%), but the rates are high for manufacturing (120%) and construction (85%). These numbers suggest that Chinese investors may have contributed even more manufacturing jobs to Zambia than had originally been pledged.

One may suspect the possibility of data falsification by ZDA's monitoring personnel. After all, Chinese firms have been known to bribe bureaucrats to get their way both in and outside China, a topic I will return to later in this chapter. However, if data were falsified, one would expect that Chinese firms in mining, which are larger, fewer, and possess considerably more bargaining power than firms in manufacturing, would be more successful at fudging statistics. Yet Chinese mining firms have recorded the poorest implementation records among all sectors.

Even if we decide not to trust official records, the Zambian public overwhelmingly perceive Chinese investors to be the foremost job creator in Zambia. Based on an original survey of nearly 800 households in the Lusaka and Copperbelt regions of Zambia (henceforth "Zambian Household Survey"), Figure 5.1 demonstrates the respondents' ranking of foreign investors based on which country is seen to contribute the largest number of jobs in Zambia. Nearly 70% of the respondents selected Chinese investments. When asked to list the top three job creators in Zambia, over 90% include Chinese investors in their selection. This finding is remarkable considering, less than two years before the implementation of this survey, presidential candidate Michael Sata was elected into office on a not-so-subtle anti-Chinese platform.

Members of Sata's party, the Patriotic Front (PF), constitute 37% of our survey sample.

81% of PF members in the survey sample support Chinese FDI, statistically

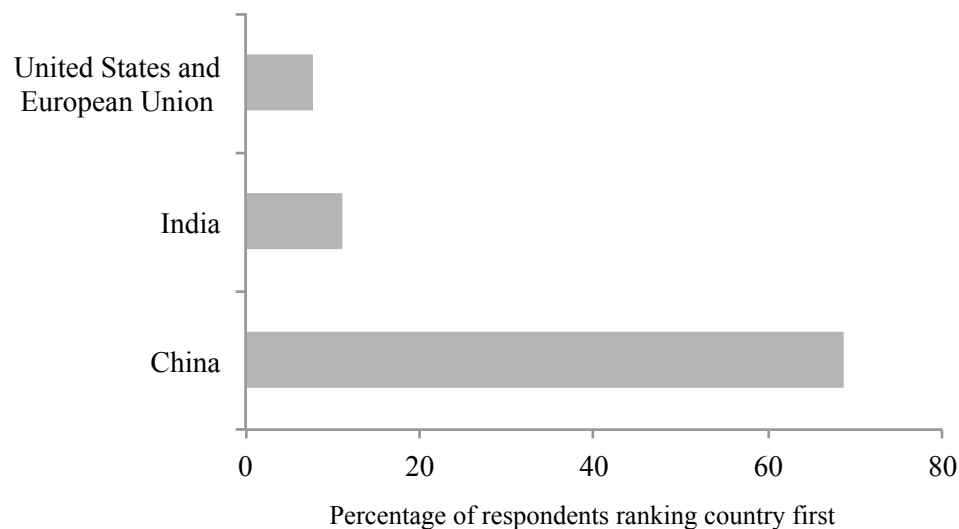


Figure 5.1: Zambian Household Survey: Country That Respondents Rank First in Job Creation

undistinguishable from the 83% of non-PF members that do. Additional information about the design and implementation of this survey is available in Appendix 5A.

To summarize, both secondary statistics and the household survey introduced here find evidence for positive impact of Chinese investments on employment generation in Zambia. Zambia qualifies as a “least likely case” for identifying this positive impact: Zambia is best known for its copper mines; but Chinese investments on the whole still generate many employment opportunities beyond the mining sector. China is no more focused on extracting natural resources than investors from other countries.

That Chinese investments are led by the state is not untrue. However, the Chinese state ultimately delegates its objectives and devises policies to enable firms to accomplish these objectives. These policies interact with market mechanisms to result in firm-level behavior. Recall that, in Chapter 3, I demonstrate that state preferences have nuanced impacts on Chinese firms' propensities to invest overseas. In the resource sector, state-owned firms are more likely to go abroad in response to both policy mandates and perquisites. In manufacturing, state firms are privileged to preserve growth and employment in China, indirectly driving more private firms to go abroad to seek a fairer and wider space of competition. I see this pattern reflected in Zambia. While the centrally owned China Non-ferrous Metal Corporation (CNMC) plays a key role in Zambia's mining industry (see detail below), private capital makes a significant contribution to manufacturing. Lower competitive pressure is a commonly cited reason for moving overseas among the Chinese manufacturers I interviewed.

5.1.2 CNMC's Countercyclical Behaviors in the Mining Sector

The Zambian economy is highly dependent on copper exports. Zambia's terms of trade improved substantially from 2000 onwards due to the "China effect", which was estimated to contribute to nearly half of the copper price growth between 2000 and 2005 (Zafar, 2007). China's interest in Zambia's copper is shaped by the desire to cut the cost of raw materials by controlling upstream assets, a rationale I discuss in detail in Chapter 3. CNMC's foray into Zambia began with the acquisition of the NFCA Mining Company in 1998 and expanded to include Luangshya Mining (acquired in 2009) and

the Chambishi Copper Smelter. CNMC also took the lead in negotiating concessions for and establishing the Chambishi Multi-Facility Economic Zone (MFEZ), where the smelter is located.

China's position in Zambia's copper sector is far from dominant, however. Commercial copper mining in Zambia began during the colonial era in the 1900s, operated by the Rhodesia Selection Trust and Anglo-American Corporation (AAC). After independence Zambia nationalized its copper mines in 1969. In subsequent decades the lack of reinvestment, disruption of transport routes, and bouts of bad luck with declining prices left Zambia's copper industry in a state of disrepair (Fessehaie, 2011). During the structural reform efforts of the 1990s the Chiluba government began to privatize the mines and sell rights to foreign investors; the government-owned Zambia Consolidated Copper Mines Investment Holdings (ZCCM-IH) typically controlled a 10-20% minority share. Today Zambia's copper mines are operated almost solely by foreign investors from India, Canada, Switzerland, China, and South Africa. Table 5.5 displays the major MNCs in the Zambian copper industry. The diverse set of investors in the same industry makes Zambia an excellent venue for comparing the behavior of the state-owned CNMC to that of other multinational mining corporations.

In this dissertation I've argued that state objectives delegated to SOEs, like CNMC, and the accompanying policy perquisites make them more tolerant of risks. The 2008 global financial crisis had a severe impact on Zambia's copper sector and its economy overall. The abrupt, unanticipated onset of this crisis and the severity of its impact provides an opportunity to observe how different producers in the same industry react to the sudden materialization of a major economic risk: World copper price

Table 5.5: Major MNCs in the Zambian Copper Industry

Mine	Investor	Year of acquisition	Corporate structure	Assets	Production volume
Konkola Copper Mines Plc (KCM)	Vedanta Resources, India (79.4%), ZCCM (20.6%)	2004	Listed on FTSE*	Mines, concentrators, smelter, leaching plants, SXEW plants	Refined copper 316,000 MT (2007)**
Kansanshi Copper-Gold Mines Plc Bwana Mkubwa	First Quantum Minerals Ltd, Canada (79.4%), ZCCM (20.6%)	2001, 1997	Listed on FTSE, TSX*	Mines, concentrators, SXEW plants (capacity 140,000 mt/y of cathodes at Kansanshi, plus 30,000 mt/y at Bwana Mkubwa), leaching plants, SXEW plants, acid plants	Refined copper 245,000 MT (2009)
Mopani Copper Mines Plc	Glencore International AG, Switzerland (73.1%), First Quantum Minerals Ltd, Canada (16.9%), ZCCM (10%)	2000	Private equity	Mines, concentrators, smelter (870,000 mt of concentrate), leaching plants, SXEW plants	Refined copper 185,000 MT (2009)
Lumwana Copper Project	Equinox Minerals Ltd, Canada/Australia (9.6%), ZCCM IH (4.4%)	1999	Listed on ASX, TSX*	Mines, concentrator	Copper concentrates 109,413 MT (2009)
NFCA Africa Mining Co Chambishi Smelter	CNMC Corp (90%), ZCCM IH (10%) CNMC (85%), ZCCM IH (15%)	1998	SOE	Mines, concentrator, smelter, acid plants, SXEW plants	Copper concentrates 50,000 MT (2007)
Luanshya and Zambia-China Economic & Trade Cooperation Zone	CNMC (85%), ZCCM IH (15%) Constructed and managed by CNMC	Constructed in 2006, 2009	SOE		Projected*** 60,000 MT
Chibuluma	Metorex Limited, South Africa (85%), ZCCM IH (15%)	1997	Listed on the JSE*	Mines, concentrator, SXEW plants	Refined copper 15,905 MT (2009)

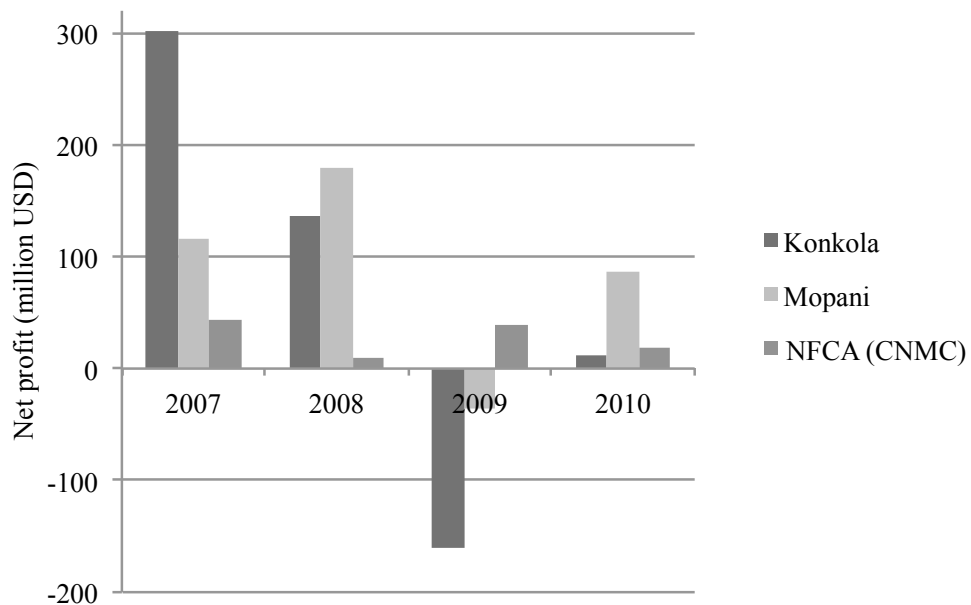
Source: Fessehaie 2011

dropped precipitously from \$9,000/ton in July 2008 to \$2,900/ton by the end of the year. The decline in copper prices reduced Zambia's trade surplus from \$30 million USD in June 2008 to a deficit of \$70 million USD in November 2008. The exchange rate, which was heavily influenced by the strength of Zambian copper exports, declined from K3,200 to the dollar in June 2008 to about K5,500 in February 2009 (Green, 2009).

Figure 5.2 below, using data from ZCCM-IH's strategic plan, reveals how some of the major mining corporations in Zambia weathered the 2008 crisis and its aftermath. Note that Konkola Copper Mines (KCM) and Mopani Copper Mines (Mopani) both suffered losses in 2009, following the crisis. In contrast the NFCA mine, operated by China's CNMC, maintained stable and even mildly increasing sales through 2009. It has also remained consistently profitable in recent years. During the crisis CNMC reportedly announced, "We will not reduce our investment by one penny; we will not reduce our production by one ton, and we will not lay off one single worker."⁵ CNMC not only maintained its operation of the NFCA mines, it also took over Luangshya in 2009. The Luangshya mine, originally under Indian (1997-2000) and Swiss (2003-2009) ownership, was one of the mines that had terminated production entirely during the crisis.

During the crisis most major foreign investors in mining curtailed production and three stopped operations altogether, resulting in the loss of some 5,000 out of a total of about 30,000 jobs in the mining sector. Green (2009) estimates that each of these formal sector jobs in Zambia in turn supports 20 jobs in services, so the employment

⁵ China.com.cn. "中国有色集团:危机中把握机遇 发展中不忘责任," http://news.china.com.cn/txt/2010-03/10/content_19576054_3.htm, accessed on July 2, 2015.



Mining profits reported in the ZCCM-IH 2012-2016 Strategic Plan.

Figure 5.2: Contrast in Mining Profits Through the Recession: Konkola, Mopani, and NFCA (CNMC)

loss in the mining sector had a serious, detrimental impact on the Zambia economy. CNMC's behavior, however, was countercyclical, expanding as other investors contracted. This observation is shared by Fessehaie (2011), "(Chinese firms) were less sensitive to high strategic and operating risks, and were markedly guided by natural resources- and market-seeking motives. Moreover, institutional factors lay behind countercyclical investment by Chinese firms."

Industry observers in Zambia have wide ranging views regarding why CNMC exhibits countercyclical behavior. One industry veteran shares, "the Chinese are here not to produce profits, or to produce necessarily at all, but they are here to lock up assets for the long term. It's what we view as neo-colonialism." Another attributes CNMC's profitability to the supporting infrastructure. The Chambishi Copper Smelter

is located in the multi-facility special economic zone discussed above (MFEZ, also known as the Zambia-China Economic & Trade Cooperation Zone (ZCCZ)), which means CNMC enjoys significant tax and duty advantages in its downstream production process.⁶ The CNMC executive I spoke with shared another perspective on why CNMC was able to pull through and expand while others struggled: “First, Chinese firms are managed differently. We employ a larger number of Chinese managers; our managers are paid less. We Chinese are hardworking, dedicated, and willing to sacrifice, so we can accomplish what others cannot in a short period of time. Second, we obtain machinery and inputs from China at a lower cost compared to those used by western MNCs.”

But the CNMC executive also shared during the same interview that the rationale for continuing to produce and expand was not entirely economic: “We won’t stop production, we need to uphold our responsibilities. Even if we lose money, we’ll have provided employment to local communities.” The executive at CNMC also portrays the Luangshya takeover as a helping gesture to the Zambian people in times of dire need. The mine employed 1,800 workers prior to the economic crisis; CNMC pledged to invest \$400m and employ 3,000 workers in the following five years.⁷ The executive describes CNMC’s presence as an integral part of bilateral China-Zambia relations. CNMC contributes to building and improving these relations.

⁶ The tax incentives are stated in the in the MFEZ Act. Investment incentives in the Chambishi and East Lusaka MFEZs are the same. These are exemption from tax on dividends for five years from the year of first declaration of dividends; 0% corporate tax for five years from the first year profits are made, with 50% of profit to be taxed in years six to eight, increasing to 75% in years nine to ten; 0% import duty rate on raw materials, capital goods and machinery for five years; and deferment of VAT on machinery and equipment imports (Alves, 2011).

⁷ China Ministry of Commerce, 中国有色矿业集团公司收购赞比亚卢安夏铜矿. <http://zm.mofcom.gov.cn/article/jmxw/200906/20090606327332.shtml>, accessed on June 20, 2015.

CNMC's state backing is an important factor in enabling their counter-cyclical behavior. First, acting as an instrument of the Chinese state, CNMC contributes to and benefits directly from bilateral cooperation. The MFEZ, which grants CNMC tax and duty benefits, was established within the framework of China-Africa Cooperation, where Hu Jintao committed to developing five trade and economic zones in Africa. Showcasing the high importance of the project for both parties, Hu Jintao and late Zambian president Levy Mwanawasa inaugurated the Chambishi part of the MFEZ in February 2007 (Alves, 2011).⁸ CNMC is in charge of developing the Chambishi MFEZ, of which it is also arguably the greatest beneficiary.⁹ Second, CNMC's presumed role as instrument of the state also gets the firm ample financing. During the interview the CNMC executive emphasized the strong work ethic of the Chinese workforce and competitiveness of China's manufacturing as a source of CNMC's profitability during hard times. A closer look at the company's financial reporting, however, tells a more complex story. According to reports submitted to ZCCM-IH, even though CNMC's NFCA mine officially registered profits during the crisis (US\$38.4 million and US\$17.4 million in 2009 and 2010 respectively), the shareholders' equity dropped to negative US\$137.4 million by the end of 2010. Negative shareholder equity occurs when the cost of liabilities exceeds the value of assets, suggesting a heavily leveraged position. It can also come from accounting methods used to deal with continued posting of

⁸ A subsection of the MFEZ (Lusaka East), near Lusaka airport, was inaugurated by Rupiah Banda and the Chinese Minister of Commerce in January 2009 (Alves 2011).

⁹ The Chambishi MFEZ is still only partially operational today. Some sectors of civil society have criticized the slow pace of development of the Chambishi MFEZ. They claim it has failed to stimulate Zambia's manufacturing sector and have accused the CNMC of being mostly interested in minerals extraction (Alves 2011). My site visit confirms Alves's description. The Chambishi MFEZ is still predominantly anchored by CNMC with few other Chinese or international investors.

substantial losses from prior years.¹⁰ CNMC's profit margin may not be as sound as it seems on paper, and the operations would likely be unsustainable without heavy lending by China's state banks.¹¹ In the language of political economy, CNMC's accounting profits in Zambia may well be rents, extracted ultimately from the Chinese taxpayers who enable the state banks.

CNMC's countercyclical behavior is consistent with the core argument I make in this dissertation. State-owned enterprises are given a soft budget constraint in order to accomplish state goals, whether it is to secure mineral assets or strengthen bilateral ties. Preferential policies and state support give CNMC higher risk tolerance and a longer time horizon, both of which make them a more stable presence when Zambia's backbone industry faltered during the global crisis. This longer time horizon is unmatched by investors from fully liberalized market economies. As Stephen Kaplan, an observer of China's influence in Latin America notes, "In comparison to the United States, where markets and short-term profits have often ruled the day, China focuses on the longer term... China has aimed to secure long-term access to energy and raw materials through global trade and investment."¹² However, as the core argument of this dissertation also points out, SOEs are not perfect agents of the state. They make commercial decisions. The combination of their commercial autonomy and policy roles

¹⁰ These losses then exist on paper only, making it possible for a company to maintain operations, despite the continued posting of substantial losses. Other situations that can contribute to negative shareholder equity are leveraged buyouts (or borrowing), severe depreciation in currency positions and substantial adjustments to intangible property (patents, copyrights, goodwill and the like) (Investopedia.com).

¹¹ CNMC's practice in Zambia is not unique. During the crisis CNMC's zinc mining operations in Mongolia also made a similar pledge to "not stop production, not reduce production, not reduce sales, or incur loss." The pledge was also accomplished at least on paper. See 张克利副董事长拜会中国驻蒙古大使馆临时代办, August 30, 2010. http://www.NFCA.com.cn/templates/t_new_list/index.aspx?nodeid=13&page=contentpage&contentid=920, accessed on June 20, 2015.

¹² The Washington Post, "Why China is investing \$250 billion in Latin America," February 4, 2015.

give rise to risk-seeking and rent-seeking behaviors evidenced by the large N analyses in Chapter 4. In this chapter, CNMC's takeover of the Luanshya mine on the one hand can be interpreted as fulfilling policy goals, increasing China's overseas copper reserve and extending a helping hand when the Zambian economy struggles. On the other hand, the takeover is a commercial move to acquire risky assets that are not immediately profitable but possess growth potential. Interestingly, CNMC executives much prefer to justify this maneuver with state objectives. The preference to subsume commercial activities under the name of serving state goals is not surprising. While the assets continue to lose value, China's taxpayers will bankroll CNMC's acquisitions. After all, the acquisitions are supposed to have security and diplomatic value beyond commerce. When the value of the assets recover, however, much of CNMC's commercial gain will be retained within the firm. This mismatch between risk and return unwittingly encourages firms to leverage state goals to seek profits.¹³ In a study of Chinese investments across southern Africa, Van de Lugt et. al. (2011) echoes this observation albeit leaving the specific mechanism unsaid: The behaviors of China's SOEs and parastatal companies often leads to a blurring of national policy and the profit-seeking strategies of companies.

¹³ Similar patterns have been observed in agricultural investment and plantation development in Laos. During the latex price drop in 2015, Yunnan State Farms, coddled with copious amounts of subsidies and loans, began to acquire struggling plantations owned by private Chinese investors in Northern Laos. The interviewed executive cited the need to safeguard China's "strategic latex reserves." Refer to Shi (2015) for additional details.

5.1.3 Labor Standards in Chinese vs. Other Foreign Firms

Chinese MNCs have been accused repeatedly by civil society groups of poor adherence to labor standards in developing countries. Chinese involvement in Zambia in particular has been subject to intense scrutiny. In 2011 Human Rights Watch (HRW) released a 122 page report, “‘You’ll Be Fired If You Refuse’: Labor Abuses in Zambia’s Chinese State-owned Copper Mines.” The report documents persistent abuses in CNMC mines including poor health and safety conditions, regular 12-hour and even 18-hour shifts involving arduous labor, and anti-union activities, all in violation of Zambia’s national laws and international labor standards (HRW, 2011). The report was widely read and created nothing short of a public relations crisis for CNMC. Labor relations appear to be equally poor in some private Chinese establishments. At Collum coal mine in southern Zambia, Chinese managers fired shots at striking workers in 2010. In 2012 rioting miners killed a Chinese supervisor and injured two others during a wage protest.¹⁴ The firm’s mining license was revoked shortly after and reinstated only in 2015. Tense labor relations arguably contributed to Michael Sata’s choice of electoral strategy in 2011, when he won wide support on an anti-Chinese platform.

Chinese MNCs’ labor practice in Zambia was so notorious that I fully expected to find dramatic differences between labor practices by Chinese investors and western MNCs in the Zambian Household Survey (Appendix 5A). In this 2013 original survey of 800 households randomly sampled in Copperbelt and Lusaka, we ask respondents

¹⁴ The Wall Street Journal, “Zambia reopens Chinese owned Collum coal mine, April 17, 2015.

who are employed by foreign firms a range of factual questions on their wages, contractual arrangements, length of shifts, and other indicators of working conditions. The results, shown in Table 5.6, are surprising and striking. The performance of Chinese firms is no worse than other foreign firms with two exceptions: First, workers employed by a Chinese firm are less likely to receive benefits. Second, workers employed by a Chinese firm are less likely to have a manager who can speak the local language. On other measures, nearly 40% of workers at both Chinese and other foreign

Table 5.6: Are Chinese Companies Worse Companies? Two-Sample Difference in Means Tests from Zambian Household Survey

	Other foreign companies	Chinese companies	Difference
Works overtime regularly	38% (0.03)	40% (0.07)	2% (0.08)
Has shifts over 12 hours	40% (0.03)	41% (0.07)	1% (0.08)
Has permanent contract	48% (0.03)	44% (0.08)	-4% (0.09)
Wage increase in 2012 or 2013	94% (0.02)	91% (0.05)	-3% (0.05)
Workplace had strike in 2012 or 2013	49% (0.07)	38% (0.14)	-11% (0.16)
Workers Are unionized	58% (0.03)	65% (0.07)	6% (0.08)
Wages Are competitive	22% (0.03)	20% (0.06)	-3% (0.06)
Receives benefits	66% (0.03)	51% (0.06)	-15% (0.06)
Manager can speak local language	45% (0.04)	30% (0.07)	-15% (0.08)

Bold type indicates difference is significant at 5%. Standard errors in parentheses.

firms work overtime regularly and endure shifts longer than 12 hours. Fewer than 50% have a permanent contract. Over 90% have had a raise in 2012 and 2013, but only about 20% of workers at both Chinese and other foreign firms think that the wages they receive are competitive for their line of work. Workers at a Chinese firm are in fact more likely to be unionized and less likely to have had a strike in the last two years. The difference, however, is not statistically significant due to the relatively small sample size.¹⁵ Granted, the direct comparison shown in Table 5.6 does not demonstrate that Chinese firms' labor practices are exemplary. Rather, it points out that most other foreign investors are equally at fault.

This point was also raised by Deborah Brautigam as she commented on the HRW report in her widely read *China in Africa* blog: "The [report] leaves a bit of a feeling that the rest of the mining sector is far better run and organized than CNMC's part. No doubt that's generally true, but workers have also complained of 'serious human rights violations' at KCM, with wildcat strikes, people being fired, and a general 'chaotic' labor situation in the mines in general. The fatality figures also suggest that the Chinese are by no means the only mines with safety problems."^{16,17} My findings from the *Zambian Household Survey* corroborate Brautigam's observation: Chinese

¹⁵ Barely more than 10% of the Zambian population is in formal employment (Central Statistical Office of Zambia, <http://www.zamstats.gov.zm/surveys/labor.php>).

¹⁶ See <http://www.chinaafricarealstory.com/2011/11/human-rights-watch-report-on-chinese.html>, accessed on July 15, 2015.

¹⁷ The lead author of the HRW report, Matt Wells, shares with Brautigam that CNMC's labor and safety practices are indeed worse because many of the workers interviewed for the report had been recently laid off from other mines due to the global financial crisis. They are in the best position to make a direct comparison. Interestingly, the fact that CNMC was able to provide employment during the crisis strengthens my points in Section 5.1.2 further.

firms' labor standards may be lacking, but they are hardly alone in the crime. A follow-up visit to the Mines Safety Department (MSD) in Kitwe also confirms that CNMC is far from the only culprit. The interviewed official confides that Mopani, a subsidiary of the Swiss-based conglomerate Glencore, has one of the worst safety records among major operators in Zambia today. KCM is also problematic in terms of safety standards, although the corporation tends to shift blame to its extensive network of subcontractors, some of which are private Chinese firms. The CNMC owned NFCA mines have had problems in the past, skimping on safety gear and protocol, but it has shown improvement in recent years.

In addition to inadequate labor conditions, Chinese firms have also been cited repeatedly for environmental violations. In February 2013, the Chambishi Copper Smelter was suspended for several days over environmental concerns.¹⁸ In January 2014, NFCA's Chimbishi South East Ore project was suspended for several months for breaking environmental laws.¹⁹ Officials in Kitwe, however, again claim that almost all major mining investors have had environmental infractions at one time or another. Although I was unable to obtain official statistics, my site visit to Mufulira in 2013 confirms first-hand the severe air pollution by Mopani's copper smelter. The acid air, a result of sulphur dioxide emissions, stung eyes as far as ten miles outside town.²⁰

¹⁸ Lusaka Times, "ZEMA orders Chambishi Copper Smelter plant shut down for polluting the environment." February 14, 2013.

¹⁹ The Wall Street Journal, "Zambia Allows Chinese Copper Mining Firm to Restart," January 23, 2014.

²⁰ Mopani Copper Mines took over the Mufulira smelter in 2000. Until recently it had been releasing 100% of its untreated sulphur dioxide emissions into the atmosphere. In March 2012 the smelter was shut down for pollution violations, only to open a month later based on "an amicable resolution" of the situation among stakeholders (Reuters, April 2012, <http://www.reuters.com/article/2012/04/21/us-zambia-mining-idUSBRE83K0AS20120421>). In 2014 Mopani completed upgrading the smelter, which now reportedly captures 97% of the emissions in compliance with rules set by the World Health Organization (Zambian

Standing in the village opposite the smelter facility, I attempted a photo of the clouds of pollutants. A vigilant, armed guard immediately rushed out of the compound to wrestle the camera away from my hands. I was only able to keep the camera after deleting all pictures of the smelter.

The question thus is, if Chinese firms are no worse than these other MNCs in upholding labor standards in Zambia's mining sector, and if environmental violations are common among foreign investors, why do Chinese firms appear to be singled out for public reprimand? Why do Chinese firms have a worse reputation than others?

Interview records and survey data reveal several contributing factors for why Chinese MNCs appear to be targeted disproportionately. First, Chinese firms, especially SOEs, demonstrate a marked fear of and unwillingness to deal with the international media. There is a deep-seated belief that western media outlets are only interested in painting a sinister image of Chinese investors because those types of stories sell. One CNMC executive laments:

We don't talk to any media personnel now, unless they are from reputable outlets in China like Xinhua or CCTV. Otherwise we only consider media requests authorized by the embassy; even then we are reluctant and will not say much... Western media outlets are deceptive. When they come to us, they say they want to hear our side of the story and clear our name, but, regardless how open we are and what they actually observe, they turn around and "blacken" (*mo hei*) us. So we've now stopped talking to them altogether.

Other SOEs operating in Zambia adopt a similar stance. At the time of my fieldwork in 2013, the only major Chinese firm in Zambia that has a dedicated PR department is the privately run Huawei. When asked why CNMC does not recruit

media personnel, the executive cites a lack of suitable talent. Although there may be some truth to the claim of talent shortage, and the western media may indeed have a penchant for China bashing, it also appears that a state-owned firm like CNMC prioritizes its audiences differently than a typical mining MNC. For a western MNC, good local and international press on corporate social responsibility is important for succeeding in the host environment and for satisfying shareholders and the international public. For Chinese SOEs, however, the importance of impressing delegations from the Chinese government and getting coverage by Xinhua and CCTV far outweighs establishing amenable relations with the local press and international outlets. After all, these firms bear responsibilities to carry out state objectives and their biggest shareholder is the Chinese government.

Second, Chinese firms' cash rich image may have made them unwitting targets of opportunistic allegations by local groups and agencies. CNMC, and other Chinese firms to a lesser degree, perceive that they are subject to more frequent and fastidious inspections from various branches of the local government. Often during these visits some citation will be threatened, fines issued, all without proper documentation. Fearing they will escalate the problem or jeopardize relations with local partners, Chinese investors simply pay up. As one executive surmises, "If money can solve the problem, then it is not a problem for us." As evidence from Vietnam also corroborates, Chinese investors are generally less likely to use legal discourse or formal arbitration to resolve disputes, preferring informal means. In any individual case in the short term, giving in to quick monetary demands may be optimal. Collectively for Chinese businesses in the long run, however, this practice may have bred a tendency among

local groups to target Chinese firms for additional revenue. Beyond citations, Chinese businesspeople widely report that they are often stopped at immigration and unable to enter Zambia unless they pay an ad hoc fine. Vehicles with Chinese drivers are often stopped in the road and arbitrarily fined by the local police. Another Chinese executive laments, “You really don’t see the local bureaucrats bothering western firms, because these firms go straight to court, but we Chinese just pay and get it over with. In a way we have trained them to target us. It’s kind of our own fault.”

A third reason Chinese firms may be targeted involves a set of language and cultural barriers. Combined with lower localization, these barriers can damage public image. As Table 5.6 above shows, Chinese firms are less likely to place local Zambians in managerial positions. While according to CNMC the use of Chinese managers is key to maintaining competitive advantage, many of these managers experience genuine difficulty in communicating more than rudimentary work instructions to their Zambian colleagues. In addition, from the perspective of the Zambian workforce, the use of Chinese managers likely represents a lack of upward mobility.

I investigate attitudes toward these Chinese business practices, and the link to opinions about Chinese FDI, using the Zambian Household Survey. Table 5.7 presents my approach: I connect a respondent’s feelings about Chinese businesses (e.g. does the respondent think communication is a problem) with the same respondent’s feelings about FDI in general and Chinese FDI in particular. The two strongest predictors for negative opinions about Chinese FDI (as opposed to FDI in general) are i) the perceived lack of Zambian managers in the workplace and ii) inability of managers to speak the local language. Chinese firms’ lower degree of localization may have hurt their image

as responsible corporations caring for local communities, and appears connected to negative opinions about Chinese FDI more broadly.

Table 5.7: Zambian Household Survey: Marginal Effect of Attitudes About Chinese Businesses on Respondent's Support for Chinese FDI

	Supports FDI from China	Supports FDI, not FDI from China
Female	-0.076* (0.039)	0.024 (0.032)
In Lusaka	0.074 (0.056)	-0.107** (0.047)
Schooling	0.010 (0.010)	0.007 (0.008)
PF member	0.020 (0.031)	0.011 (0.026)
Respondent agrees that, relative to other foreign investors, Chinese businesses are:		
More likely to have Zambian managers	0.142*** (0.028)	-0.091*** (0.023)
Less involved in local communities	0.035 (0.032)	-0.010 (0.026)
Less likely to show care	0.008 (0.047)	-0.040 (0.034)
More likely to bribe	0.008 (0.031)	-0.006 (0.025)
More difficult to communicate with	-0.019 (0.032)	0.056** (0.025)
Observations	742	742

Additional controls (not shown) are age, income, travel frequency, marital status, and sector of employment. *** p<0.01, ** p<0.05, * P<0.1.

5.1.4 Electoral Politics and Policy Uncertainty

Historically it is not uncommon for powerful multinational corporations to ally with their home governments to install favorable political environments in host countries. For example, in 1954 the United Fruit Company (UFC) had a strong influence in inducing the United States, through the Central Intelligence Agency (CIA), to overthrow the democratically elected Arbenz government in Guatemala. The burgeoning Guatemalan revolution threatened to end the predatory labor practices from which UFC profited handsomely, and the Arbenz government began to expropriate UFC's land holdings *en masse* under the new agrarian law. In response, UFC lobbied various members of the U.S. government and public aggressively, allegedly spending over half a million dollars (equivalent to nearly five million dollars today). Once President Truman authorized a Guatemalan coup d'etat, UFC plotted directly with the CIA and other U.S.-backed dictators in the region to remove Arbenz and installed a military regime.

Today the perceived strong ties between the Chinese government and its economic agents provokes anxiety as to how much they are influencing domestic politics in host countries. From Myanmar to Libya to Venezuela, the Chinese government is known to engage with oppressive regimes to promote Chinese investments and trade. This approach has been criticized by the international community for hampering progress in democratization and human rights. Recent cases, however, would seem to suggest that China, in spite of pumping billions in investments and trade into these politically fragile areas, wields limited political clout and reacts

passively to political changes. The Arab Spring in Libya left many Chinese SOEs with obsolete contracts negotiated under Gaddafi. The democratic transition in Myanmar left China's massive dam, railway, mines, and pipeline projects uncertain. South Sudan's independence from the north presented contractual risks for China National Petroleum Corporation's pipelines, which had all been negotiated with the northern capital of Khartoum. China forged close relations with Hugo Chavez, and his death left China with enormous oil deals and loan programs in limbo among the opposition groups in Venezuela. The most recent case was Sri Lanka. Ex-president Mahinda Rajapaksa's electoral defeat left China's ambitious plans for building a new port city uncertain, with the newly elected government edging closer to the United States and India. In all cases, China staunchly voices its respect for "the choice of the people," regardless whether the political game resolves in its favor.²¹ China reacts by either temporarily abandoning its economic missions or trying to woo the next administration with still more economic olive branches. In a November 2014 visit with the Burmese reformist president Thein Sein, Chinese premier Li Keqiang signed deals worth \$7.8 billion covering energy, agriculture, telecommunications, infrastructure and finance.²² In 2015 Xi Jinping vouched for another 20 billion in investments and 5 billion in financing for Venezuela,

²¹ For example, regarding the capture and death of Gaddafi, China's foreign ministry made this statement in October 2011: "China unswervingly respects the Libyan people's choice and the important position of Libya's National Transitional Council in solving problems." In Tunisia, visiting Chinese Vice Foreign Minister Zhai Jun told Beji Caid-Essebsi, prime minister of the Tunisian national unity government in March 2011 that The Chinese government respects the choice of the Tunisian people and is willing to cement and develop the bilateral traditional friendship and the mutually-beneficial cooperation as always (Xinhua News, March 8, 2011).

²² Reuters, November 14, 2014.

now led by President Nicolas Maduro.²³ In Zambia, soon after the Patriot Front victory, China's ambassador Zhou Yuxiao was the first to pay President Sata a congratulatory visit. Hu Jintao immediately invited Sata for a state visit to Beijing.²⁴

Zambia presents a typical case that illustrates how Chinese firms and government manage political uncertainty. When CNMC first ventured into Zambia in 1998, President Chiluba of the political party Movement for Multiparty Democracy (MMD) was in his second term. MMD continued to wield considerable public support, winning two more presidencies through Levy Mwanawasa and Rupiah Banda. When the populist Patriot Front (PF) candidate Michael Sata won the 2011 election, MMD's defeat came as a surprise to CNMC as well as Chinese diplomats.

A CNMC executive shared that they had fully anticipated that Banda would be able to continue into a second term. MMD's defeat created great uncertainty, as all of CNMC's deals, including the economic zones, had been negotiated under the watch of MMD. China's SOEs have long relied on high-level governmental endorsement for their business dealings. Mwanawasa visited CNMC's NFCA mines on July 7, 2007 and was quoted as saying that "[t]he purpose of coming here is to show support for what the Chinese are doing for Zambia. I wanted to see their responsibility and how they are paying back to the community and I am excited." (Fessehaie, 2011). When NFCA's "west ore body" project was launched in October later that year, Vice President Rupiah

²³ Reuters, January 7, 2015 and Reuters, April 20, 2015. Granted, Maduro previously served with Chavez and was in his inner circle. Both belong to the United Socialist Party (PSUV), which Chavez founded in 2007. The political discontinuity between Maduro and Chavez is minimal and in many ways Maduro's win is a fortunate outcome for China following Chavez's death. Maduro, however, won by a mere 1.5 percent margin. The massive protests Venezuela experienced in 2014-2015 also threaten an uncertain political future.

²⁴ The Christian Science Monitor, "Zambia's new President Sata sets new mining rules for China," September 28, 2011.

Banda visited the firm to inaugurate the project (Fessehaie, 2011). In the end, not only was MMD defeated, but incoming president Sata won on an explicit anti-China platform. The CNMC executive said, “There was nothing we could do. Our government’s policy is that we do not interfere with their politics. The choice is left up to their own people. That is a line that we absolutely cannot cross [...] when the government changes, that’s what you call political risk and indeed that creates some problems for us, but we just have to deal with it and be prepared for it. It’s all part of the cost of doing business.”

Ample financial support from Chinese banks enables CNMC to take political uncertainty and policy volatility in stride. The PF administrations are markedly populist. Its most prominent electoral promise is that foreign investors share more benefits with the Zambian population. In September 2011, CNMC reportedly prepared two separate runs of paychecks for its Zambian workers at NFCA, a status quo check if Sata lost, and an 85% raise if the populist Sata won.²⁵ As soon as Sata’s triumph became apparent, the second round of paychecks were dispatched. Since election the PF governments have also proposed repeatedly to increase mines royalties. Each time the proposal faced strong opposition from a consort of international mining conglomerates, but never CNMC or the Chinese embassy. In a January 2015 announcement, Guy Scott’s interim government abruptly doubled mineral royalties for both underground and open pit mining.²⁶ The announcement angered several international miners with the Canadian

²⁵ The Christian Science Monitor, “Zambia’s new President Sata sets new mining rules for China,” September 28, 2011.

²⁶ Taxes for open pit mines increased from 4 percent to 8 percent while those for underground mining increased from 6 to 20 percent of the value of copper mined. In April 2015, however, the cabinet decided

mining giant Barrick Gold, owner of Zambia's biggest open pit mine at Lumwana, being the most vocal. The company claims that it will pull out of the country and leave more than 3,000 miners jobless. In contrast, the Chinese embassy vowed that none of the Chinese owned mines would pull out of Zambia on account of the revised taxes.²⁷

In spite of possessing the largest stake in the copper mining sector, Chinese companies are perhaps the least active in institutionalized policy lobbying. Representatives from western mining firms share during interviews that they are largely unaware of their Chinese colleagues' participation in the policy discourse. At the Chamber of Mines, which is a government-initiated industry association, Chinese firms are Class B members, which means they indirectly elect one representative among their number to join the council, the chamber's policymaking body. Firms such as KCM, Mopani, and First Quantum are all Class A members, who participate directly in council activities. Furthermore, Chinese membership is entirely absent from the self-organized Association of Zambian Mineral Exploration Companies. As one interviewed western executive puts it, "the Chinese have no interaction at the public level."

In section 5.1.2 I document CNMC's resilience in the face of economic cycles thanks in part to their privileged status as an agent of the Chinese state. In this section their passive reaction to political turnover and policy uncertainty further demonstrates a higher risk tolerance. The stance of non-interference, to which both China's diplomats and mining companies adhere, is ultimately made possible by Chinese taxpayers'

to scale back and set mining royalties for both open pit and underground mines at 9%. See <http://www.mining.com/its-official-zambia-scales-back-mining-royalties-to-9/>.

²⁷ Star Africa News, "Chinese mining investors to stay in Zambia in spite of tax increases," January 2, 2015. <http://en.starafrica.com/news/chinese-mining-investors-to-stay-in-zambia-in-spite-of-tax-increases.html>

financial backstopping. Because the Chinese public would pick up the tab in the end, firms can continue to operate in the face of considerable uncertainty, and the Chinese government can continue to extend economic olive branches to one short-lived administration after another.

5.2 Vietnam

It is a common perception that Chinese firms bribe to gain competitive advantage, especially when operating in corrupt systems. Vietnam provides the perfect testing ground for whether Chinese MNCs bribe more than other MNCs and whether their behaviors perpetuate or even worsen bureaucratic corruption in host countries. China enjoys institutional and cultural proximity to Vietnam. Similar to China, Vietnam has a single-party communist political system that is not particularly known for clean business practices. If there is anywhere we should anticipate Chinese firms to try to bribe their way ahead, it would be Vietnam. As such, Vietnam constitutes a “most likely” case. Furthermore, many other foreign investors in Vietnam possess similarly close cultural and institutional distances to the Vietnamese system, providing a comparison group: Vietnam’s foreign investments come predominantly from East and Southeast Asia, with Taiwan, South Korea, Japan, and Singapore claiming the top investment amounts. The composition of nationalities in the comparison group is significant precisely because institutional and cultural distances can mediate one’s ability to use bribery successfully.

While the Zambia case offers the chance to compare multiple MNCs in the same industry, nearly all major non-Chinese investors in Zambia (India, South Africa, Britain, Canada) are of the anglo-saxon tradition or territories of the former British empire. When it comes to engaging with the local bureaucracy in Zambia, Chinese firms are arguably at an inherent disadvantage due to greater institutional distance. Chinese firms' relative inaction on policy discourse implies higher risk tolerance, but the cause of this inaction could instead reflect Chinese firms' limited familiarity with the local institutional environment. Turning to the Vietnamese case, however, Chinese investors should be equally if not more familiar with ways to interface with the local bureaucracy. If I observe that Chinese firms are more or less likely to bribe to gain advantage, I can be fairly confident that the disparity is not entirely due to differences in firms' institutional or cultural literacy.

The challenge in studying corrupt business practices is that they are difficult to observe. Firms are highly unlikely to disclose such practices during interviews. Instead I rely on survey data that (1) guarantee the confidentiality of the respondents and (2) incorporate list experimental designs that are particularly suited for collecting sensitive information by enhancing anonymity. The Vietnam Provincial Competitiveness Index (VPCI) project conducts an annual firm-level survey across 63 provinces and municipalities that measures key indicators of business environments. The questionnaire regularly covers topics including ease of licensing and registration, incentives offered by local governments, security of contracts and property rights, policy transparency and regulatory quality, and dispute resolution mechanisms. Beginning in 2010 the survey included more than a thousand foreign investors annually.

The sample I analyze includes three waves from 2010 to 2012, where a total of 2,819 foreign firms from 55 countries are surveyed. 175 of these firms are from China. More information about the design, sampling, and implementation of the VPCI survey is available at the project's website.²⁸

On the issue of bribery and bureaucratic corruption, the survey instrument includes the following list experiment (also termed the unmatched count (UCT) or item count technique). Respondents are shown a baseline list of activities commonly employed by businesses to expedite the attainment of their investment licenses. Such activities include, for instance, finding a domestic partner who is already registered or hiring a local consultancy to obtain the license. For a randomly treated 50% of questionnaires, the list of activities includes an additional sensitive item, unofficial payment to the provincial official to expedite the process. In other words, roughly 50% of respondents are in the treatment group, where they are shown a list of activities containing the sensitive item; the other 50% are in a baseline control group, where they are shown the list of activities without the sensitive item. All respondents are asked to report the total number of activities they engaged in, without identifying which specific activities. From the difference between the total number of activities reported by the treatment and control groups, we can infer the average propensity to pay informal charges in a given sample. UCT is a well established technique to induce more truthful response to sensitive inquiries by improving anonymity. A detailed discussion of UCT and the accompanying regression techniques is available in Imai (2011).

²⁸ The website is <http://www.pcvietnam.org>.

Figure 5.3 below visualizes the list experiment. The gap between the point estimates for the baseline and treatment groups represent the propensity to bribe (or the fraction of respondents that bribe). From the figure, nearly 65% of responding Chinese firms pay informal payments to expedite licensing whereas only 23% of investors of other nationalities are estimated to bribe. The wider confidence intervals for China reflect a smaller sample size. Chinese investors' higher propensity to bribe relative to other foreign investors is highly statistically significant, although this simple visualization does not yet account for factors like the sector of investment. One could imagine that, if the mining sector is inherently more corrupt and Chinese investors are disproportionately focused there, controlling for such confounding factors would be important.

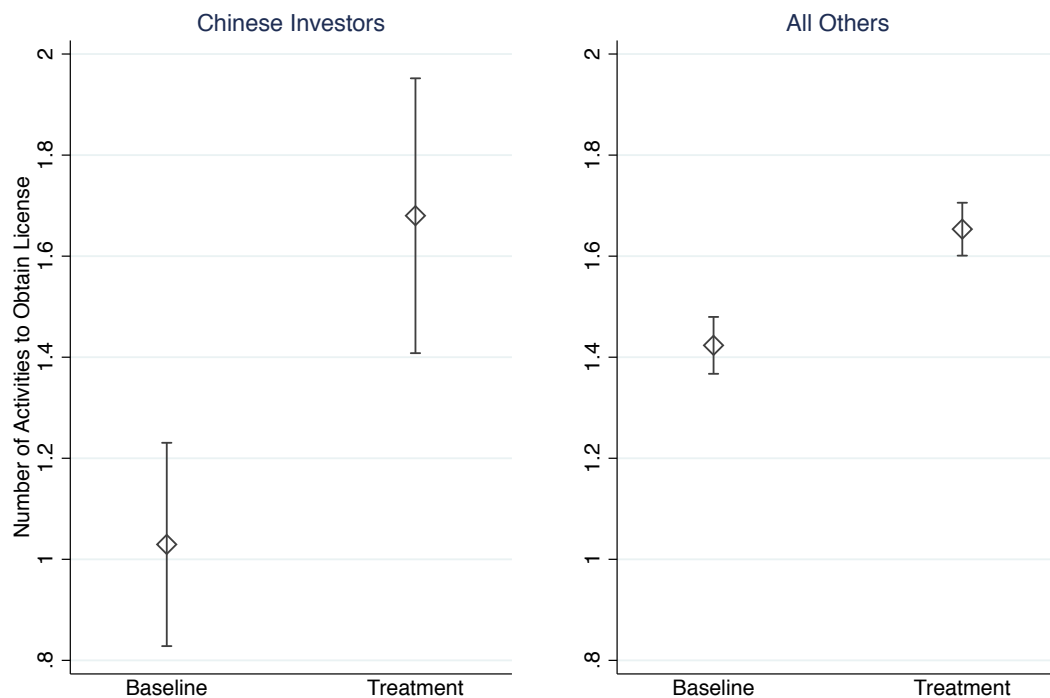


Figure 5.3: Visualization of Unmatched Count Experiment to Estimate Rate of Informal Payments by Chinese Versus Other Foreign Investors

Following Malesky et. al. (2015), in Table 5.8 I introduce controls for the effect of sector (dividing respondents into manufacturing, construction, finance, resources, and services), year of investment, and province. I consider two types of confounding effect that each control (like sector of investment) might have on the survey experiment: The first is simple variation in the baseline number of activities in each group. Businesses in a certain sector, province, or year may need to do a larger number of baseline non-bribing activities to get licensed than businesses in another sector, province or year. These are listed as “baseline” controls in Table 5.8.

Second, I can control for differential effects of sector, province, and year on the treatment effect itself. In other words, I account for the fact that bribery in certain sectors, provinces, or years may be more common among all businesses, Chinese or not. These are listed as “treatment” controls in Table 5.8. I isolate the remaining treatment effect (rate of bribery) and in the first row of the table show the difference between Chinese and other firms. Column (1) of Table 5.8 shows the difference between Chinese and other firms without any controls; this is the basic version of the effect that was visualized above in Figure 5.3. The estimate in the first column, 0.421, indicates that Chinese firms are 42 percentage points more likely to bribe than other firms (this is the difference between the 65% rate for China and 23% rate for others taken from the figure). I then gradually add controls across columns, culminating in the most stringent test in column (5). Chinese firms’ higher propensity to bribe is robust across all specifications and in fact, when considering all controls, shows up even more strongly. This pattern demonstrates that it isn’t the mix of sectors or provinces that is driving

Chinese investors' higher tendency to bribe. If anything, Chinese investors appear to be attracted to provinces where less bribing is generally done.

Table 5.8: Difference in Informal Payments Rate Between Chinese and Other Investors

	(1)	(2)	(3)	(4)	(5)
Additional treatment effect (informal payments) by Chinese	0.421** (0.210)	0.451** (0.212)	0.592** (0.242)	0.452** (0.213)	0.612** (0.250)
Sector controls (baseline)		X	X	X	X
Sector controls (treatment)				X	X
Year controls (baseline)			X		X
Year controls (treatment)					X
Province controls (baseline)			X		X
Province controls (treatment)					X
N	2299	2299	2299	2299	2299
R ²	0.019	0.020	0.149	0.022	0.165

Each specification includes baseline and treatment effects for Chinese and other firms, and (2) through (5) include additional baseline and treatment effects for the control groups indicated. The coefficient on the interaction between the treated group and Chinese investments represents the additional treatment effect present among Chinese investors and is displayed in row one. *** p<0.01, ** p<0.05, * P<0.1.

The results from Column (5) are visualized in Figure 5.4 for easier interpretation.

The fraction of bribers is markedly higher among Chinese investors than it is among other foreign investors. The figure also introduces a more finely detailed comparison group including only other East Asian investors (Taiwan, Japan, and South Korea). This group has an even lower propensity to bribe compared to non-Chinese foreign investors more broadly, further sharpening the comparison with China. This pattern demonstrates that it isn't Chinese investors' cultural proximity to Vietnam that is driving their higher propensity to bribe, either.

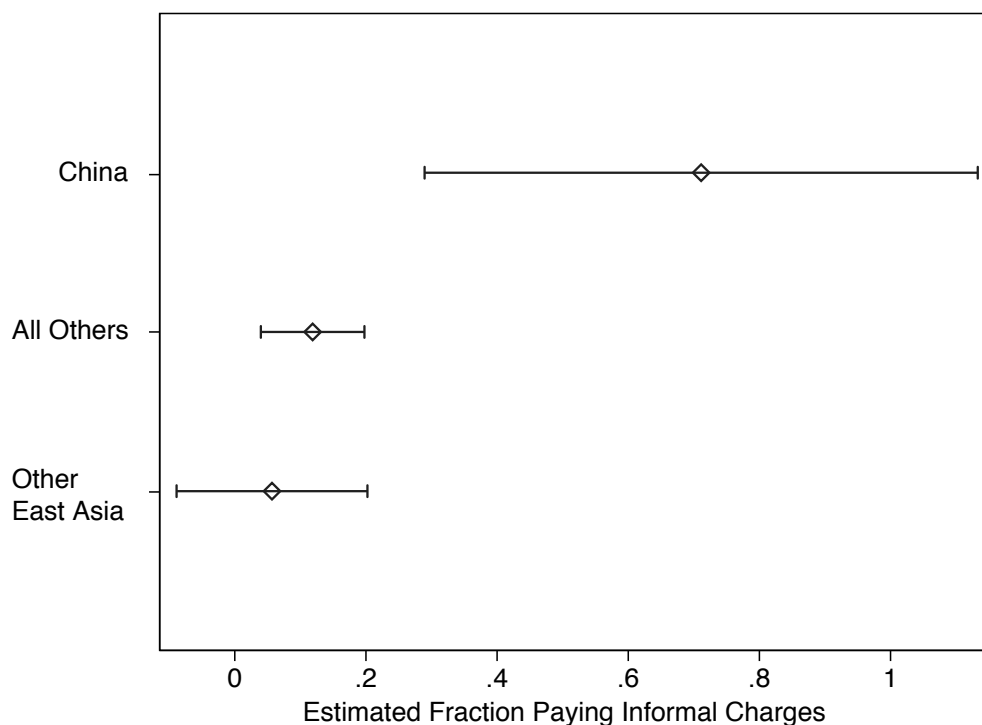


Figure 5.4: Estimated Informal Payments by Chinese Versus Other Investors

So far I have found robust evidence that Chinese investors are more likely to bribe than other foreign investors in Vietnam. The question remains, however, as to what, if anything, Chinese investors are gaining through these “informal” payments. Table 5.9 compares Chinese investors’ experiences in receiving favorable treatment from the local government to those of other foreign investors.²⁹ Interestingly, Chinese investors on the whole are no more likely to receive a tax holiday, tax reduction, or reduced land fees. They also do not seem to pay less for operating permits. In fact, there is preliminary evidence that Chinese investors have to bribe just to achieve

²⁹ The table displays the coefficient on an indicator for Chinese investments in a regression of the outcome of interest on the China indicator plus a set of controls for year, province, and sector.

treatment comparable to other foreign investors who make fewer informal payments.

More Chinese investors have had to negotiate in order to receive incentives, even

Table 5.9: Incentives Received and Costs Incurred by Chinese Versus Other Foreign Investors

	Difference	Standard error
Negotiated for incentives	0.150*	(0.091)
Incentives received		
Tax holiday	-0.114	(0.073)
Tax reduction	-0.098	(0.083)
Reduced land fee	-0.034	(0.086)
Land introduced by official	0.057*	(0.030)
Additional documents required	0.728	(1.976)
Cost for all permits	0.179	(0.244)
Total permit time > 3 months	0.108***	(0.040)

Difference between Chinese and all other investors, with controls (not shown) for year, province, and sector. All response variables are binary with the exception of additional documents required (number of documents) and cost (quartiles by year).
 *** p<0.01, ** p<0.05, * p<0.1.

though the actual incentives received are no better than those given to foreign investors generally. They are somewhat more likely to have obtained land plots through the introduction of a local official, but the land fees they pay are not lower. Perhaps the most ironic finding is this: although the list experiment reveals that Chinese investors are far more likely to give informal payments in order to expedite the licensing process, it takes them significantly longer to receive all the permits. The fraction of Chinese investors spending more than three months to complete all their permits exceeds that of other foreign investors by 10%.

The findings presented in Table 5.9 are surprising. Our predominant impression is that Chinese investors are adept at utilizing corrupt local systems to their advantage. They secure lucrative deals by lining the pockets of unscrupulous bureaucrats and politicians. It is widely believed that Chinese firms' ability to bribe without retribution from corporate oversight in their home country gives them a significant advantage in navigating corrupt host environments. This advantage is thought to attract Chinese investors to corruption-ridden countries that other MNCs try to avoid. Evidence from the VPCI survey, however, suggests a very different scenario. Here I find that Chinese firms do bribe more, but that their effort does not get them ahead of other international investors.

One plausible explanation is the presence of opportunistic demands for bribes. For bribery to occur, the supply and demand of bribes must coincide. Our scrutiny of Chinese firms' tendency to bribe has often focused on the supply side, neglecting demand by local bureaucrats. Granted, the two sides may well have grown symbiotically; Chinese firms' readiness to resort to bribery likely cultivated greater demand in the first place. This pattern is not unlike what I observe in Zambia, where Chinese firms, in a habit of paying up whenever something goes wrong, feel disproportionately targeted for frivolous citations by local bureaucracies. Once we recognize that demand for bribes can be opportunistic and targeted, we may also want to reevaluate our concern for the negative impact of Chinese investors' corrupt behaviors. Instead of perpetuating bureaucratic corruption broadly in a host country, Chinese investors may in fact be the worst victims of their own propensity to bribe. At least that would appear to be the case in Vietnam.

5.3 Chapter Summary and Discussion

Focusing on two host countries, Zambia and Vietnam, I evaluate four central claims often made about the impact of Chinese investments. They are (1) limited contribution to local development, (2) poor demonstration of corporate social responsibility, (3) engagement with bureaucratic corruption, and (4) interference with political outcomes and policymaking.

Claim 1: Chinese investments make limited contribution to local economic development.

A common perception is that Chinese investments are mainly to achieve state goals that primarily benefit the Chinese economy instead of the host country: whether it is to acquire natural resources, to promote the export of China's own goods, to harness technological gains, or to conduct corporate and political espionage. A substantial portion of Chinese investments are in the capital intensive natural resource sector. Even if Chinese investments generate growth, economic gains and resource rents accrue primarily to the oft corrupt and dictatorial elites instead of the general population in developing countries.

In this chapter the case of Zambia demonstrates that Chinese investments are able to generate substantial manufacturing employment even in an economy highly dependent on its copper sector. Furthermore, because Chinese state-owned firms are delegated state objectives and given preferential financial support, they are better able to weather economic cycles and provide more stable opportunities of employment. This observation is consistent with Weisbrod and Whalley's (2012) finding that Chinese investments' contribution to Sub-Saharan African growth is pronounced throughout the

financial crisis.³⁰ Chinese firms offer wages comparable to those offered by other foreign firms in Zambia, but they are less likely to offer managerial positions to the local workforce. This pattern appears to be repeated in other parts of Africa. A case study of Egypt, Algeria, Tunisia and Morocco finds that Chinese investments tend to generate jobs for low skilled youth, but do little to alleviate unemployment pressure in knowledge-intensive sectors (African Development Bank, 2012). In South Africa a survey of sixteen Chinese firms also found that they employ relatively unskilled laborers (Huang and Ren, 2013). With time, however, Chinese firms' degree of localization could increase, placing more locals in positions with higher skill content.

Claim 2: Chinese investments demonstrate poor labor and environmental standards.

Although this claim may be true generally, the case of Zambia demonstrates that Chinese investors do not exhibit significantly worse labor and environmental standards than MNCs from other countries, and further that Chinese firms have shown improvement in recent years. However, anecdotal evidence suggests that Chinese investors' cash rich image makes them vulnerable to opportunistic allegations by local groups. Chinese firms' lack of willingness and competence to engage the international media and their lack of localization also appear to contribute to their tarnished image.

³⁰ There has been limited work assessing the actual impact of Chinese investments on the development of host economies. Analyzing growth data from thirteen Sub-Saharan African countries, Weisbrod and Whalley (2012) find a significant portion of the elevated growth in Sub-Saharan Africa in years around the Financial Crisis can be attributed to Chinese investment.

Claim 3: Chinese investors bribe to get ahead.

The case of Vietnam crystalizes a surprising finding: Chinese investors do bribe substantially more, but there is no evidence that they obtain advantageous perquisites with their bribes. It is possible that their penchant for bribing may have cultivated a targeted demand for bribes by local bureaucrats. As such, the concern that Chinese MNCs are outcompeting western MNCs by engaging in corrupt transactions may be overblown. In addition, targeted demand for bribery likely has limited impact on the overall level of bureaucratic corruption in these countries. My finding in the case of Vietnam is also supported by my observations in Zambia, as well as by Cardenal and Araujo's (2013) findings in Central Asia:

A high-ranking Chinese businessman in Turkmenistan shares, "The governments of Central Asian countries such as Turkmenistan and Kazakhstan see Chinese people and businesses as a source of money that is willing to pay bribes and participate in systems of corruption. That's what you have to go through if you want to do business in this country. The bribes are usually small amounts, a little bigger from time to time. For Chinese people, this is nothing unusual because of our tradition. We consider it easier to deal with things in that way than causing bigger problems. You just pay up and then the problem goes away." When we ask him how CNPC manages to square these bribes within their budgets and balance sheets, "We plan these payments into our budgets. We know about it here in Ashgabat and they know about it in Beijing. They know that's how things work here, and so we include the bribes in our balance sheets. We don't have any other choice."

Claim 4: Chinese prop up oppressive dictators.

There has been little systematic research on whether Chinese investments in fact prolong the life of authoritarian regimes. Analyzing the survival of authoritarian regimes from 1998-2008, Bader (2015) finds that the effects of economic cooperation from China are conditional on the regime type of the recipient. China's economic

cooperation is associated with regime durability in party-based regimes while in non-party regimes it in fact correlates with regime collapse. One possible explanation, she proposes, is that party-based regimes tend to engage in performance-based legitimation strategies and China's economic engagement more readily translates into public support in such systems than other types of regimes. Bader's explanation suggests that, to the extent China prolongs autocracy in host countries, such influence is channeled through enhancing the legitimacy of current rulers as opposed to wielding direct political clout and installing dictatorships.

How Chinese firms have met electoral and policy uncertainty in Zambia is consistent with Bader's proposition. To the extent that China's economic engagement may have prolonged or shortened the electoral viability of MMD, the effect was channeled through arguably unintended consequences on party legitimacy instead of through direct participation in political lobbying and strategizing. Granted, Zambia is an electoral democracy and hardly qualifies as an oppressive dictatorship, but for corporations under short-term profit pressure, the temptation to strong arm a favorable political environment is still great. Contrary to many fears, neither the Chinese government nor its state-owned firms are doing that in Zambia. The financial backstopping ultimately provided by the Chinese public allows China to absorb the cost of political and policy uncertainty. It is precisely this higher risk tolerance that allows Chinese investors to operate in some of the world's most volatile areas while maintaining the diplomatic stance of non-interference.

Appendix 5A **Zambian Household Survey: Sampling and Implementation**

The Zambian Household Survey was conducted over the period of one month from March 6, 2013 to April 7, 2013. The survey was a collaborative effort by Weiyi Shi and Brigitte Zimmerman, both Ph.D. candidates at the UCSD Department of Political Science at the time of the survey.

Our study focuses on the opinions of Zambians who have been exposed to industries and businesses involved in FDI, trade, and employing migrant workers. These Zambians principally reside in the Copperbelt, the hub of the mining industry, and in Lusaka, the hub of all other industries in Zambia. There are 370 wards in these two provinces with a total of 815,543 households.

The enumerators are employed from the University of Zambia and fluent in the primary language for the region where they work. The primary language of Lusaka is Nyanja, and the primary language of the Copperbelt is Bemba. The survey is translated and back-translated from English into Nyanja and Bemba, and available in both languages in both provinces. The survey is read aloud to the respondents, who verbally answer the questions.

We use a three-stage cluster sampling strategy. First, we randomly select two constituencies in each province, Copperbelt and Lusaka. Then, we stratify on density of mining industry and randomly select four wards. Then, we divide the ward into square geographic units and randomly select one square units. Then, a team of two enumerators travels to each unit and complete 15 surveys each over the course of one day. Every seventh household is sampled, although households with only children

present are not counted in this skip pattern. Only one adult is sampled per household or residential unit, including in polygamous housing groups, and the enumerators alternately ask for males to females at a rate of three to one. When more than one adult is present of the correct gender, the adult who most recently had a birthday is selected. Enumerators are permitted to circle back to households if an adult of the correct gender was meant to return shortly. They are also permitted to find the adult of the correct gender elsewhere, take them aside, and then interview them in a private location. If the enumerators walked to the edge of the unit, they are permitted to spin a bottle and resume the walk pattern in the direction of the open side of the bottle. The lead enumerator keeps a map of the walk patterns and sampled households in each ward, which are available upon request. The starting points for the random walk in each unit are listed below:

(1) Chingola District: Nichanga Constituency

Kabundi Shopping Area

Chiwempala Township

Chikola Township

Town Centre

(2) Kalulushi District: Kalulushi Constituency

Kalulushi Town Centre

Chibuluma Shopping Area

Chambishi Town Centre

Kamakonde Area

(3) Mufulira District: Mufulira Constituency

Mufulira Town Centre

Kawama Township

Kantanshi Township

Kamuchanga Township

(4) Lusaka District: Mandevu Constituency (Low Income)

Chipata Compound

Chaisa Compound

Chilulu Compound

Garden Luangwa

(5) Lusaka District: Chawama Constituency (Middle Income)

Chawama Police Compound

Kuomboka Compound

Maplot Weluzani

Chawama Eye Clinic Area

(6) Lusaka District: Munali Constituency (High Income)

Kalundu

Chadleigh

Handsworth

Chamba Valley

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Chapter 6

Concluding Remarks

The rapid growth of China's overseas investments has galvanized considerable debate and controversy in recent years. At the center of the debate is a lack of understanding about how emerging multinational corporations (MNCs) operate, especially state-owned enterprises (SOEs) from autocracies. This dissertation is motivated by two central puzzles about China's outward investments: (1) Is the expansion of China's outward investment and MNCs best understood as state-led or market-driven? (2) What does the mechanism driving Chinese investment imply for the behavior of Chinese firms, their impact on host economies, and China's foreign policy toward the sites of investment?

6.1 Summary of Core Findings

The preceding chapters have demonstrated that China's growing FDI is a product of both state preferences and firms' profit incentives. Although this hybrid perspective is not entirely new, this dissertation is the first to identify the specific mechanism through which state goals and market forces interact to result in firm-level behavior in an authoritarian context. More importantly, I show that this interaction leads to perverse consequences unintended by the state, a departure from the common perception that autocrats maintain monolithic control over their economic agents.

Political elites depend on firms to carry out certain state objectives (e.g. enhancing energy security, implementing economic statecraft) and devise preferential policies (e.g. subsidies, insurance, bailouts) that enable firms to accomplish these objectives (Chapters 2 and 3). However, firms can also leverage their policy roles to capture rents in the process by investing in high-risk – but also potentially high-return – projects, often in the name of furthering state goals. Attuned to their strategic role in the Chinese state (and often contributing avidly to such rhetoric and hyperbole themselves), SOEs know that they would not be allowed to go out of business even when their investments fail. When investments fail, the costs are ultimately borne by China's disenfranchised taxpayers. When investments succeed, however, the financial gains remain private to the firms. It is this mismatch between risk and return that gives rise to SOEs' risk-seeking (i.e. moral hazard), a tendency that Chinese authorities have been trying to curb, albeit without apparent success (Chapters 2 and 4).

This lack of success is not surprising. Perhaps most importantly, I show that moral hazard and rent capture are an equilibrium outcome with complete information (Chapter 2). In other words, political elites cannot avoid this outcome as long as they perceive themselves to be dependent on SOEs as agents to accomplish state goals through FDI. Moral hazard on the part of the firms is not a result of elite ignorance (though ignorance can increase moral hazard), but an inherent product of delegating state objectives to firms. The presence of disenfranchised taxpayers makes rent capture a financially viable outcome at least in the short term.

The implicit insurance enjoyed by China's state firms is a double-edged sword by design. On the one hand, it fosters moral hazard and rent capture on the part of firms,

which is confirmed through systematic evidence in Chapter 4. On the other hand, it imparts higher risk tolerance and allows China's SOEs to operate in some of the world's most fragile and volatile areas. As Chapter 5 illustrates, Chinese SOEs' state backing and commitment to state goals can make them a more stable source of growth and employment compared to western MNCs. Both Chinese firms and the government are able to adhere to the diplomatic doctrine of non-interference when faced with political and policy uncertainty in host countries.

To summarize, this dissertation seeks to elucidate the political economy of Chinese outward direct investment while informing the broader literature and theory surrounding (emerging) multinational firms. Chapter 2 presents a general theory on the interaction of the home state and MNCs in shaping international investments, and models the delegation of state objectives to MNCs in an authoritarian context. Chapter 3 and 4 test the theory empirically in the context of Chinese outward FDI: In a first step Chapter 3 demonstrates that both state preferences and market mechanisms govern Chinese firms' decision to invest overseas. Chapter 4 goes further to establish that Chinese SOEs in fact leverage state objectives to seek rents for their own benefit. Chapter 5 explores the implications of Chinese SOEs' state backing for countries that receive Chinese investments and examines China's foreign policy toward these countries.

6.2 Policy Relevance

The introductory chapter has discussed at length the relevance of this dissertation to the international and comparative political economy literatures: The FDI/IPE literature has so far focused almost exclusively on private firms from developed, democratic economies, where firms are assumed to operate more or less autonomously from the home state. I hope to begin to fill this gap by explicitly modeling the delegation of governmental objectives to MNCs in an autocracy. I highlight the heterogeneous impact of FDI on host countries by investigating whether and why Chinese MNCs exert a different impact from that of their western counterparts. I also unpack the link between overseas economic interests and foreign policy and explore the mediating effect of disenfranchised taxpayers in an autocratic context. In relation to the Chinese/comparative political economy literatures, my finding that Chinese SOEs leverage state objectives to seek rents globally qualifies the view that China's SOEs merely carry policy burdens without maximizing profits. This finding also challenges the simplistic views of the power of autocratic elites in directing economic actors.

Here I turn to discussing the broader policy implications of my results. This dissertation project was, after all, motivated first and foremost by policy debates as to how we might respond to China's rapidly expanding economic reach in a peaceful and constructive fashion. Findings in this dissertation shed light on the following anxieties commonly associated with Chinese investments:

First, this dissertation challenges the notion that Chinese MNCs are invariably faithful agents of the state. Even in a highly liberalized and open economy like China's, conventional wisdom about autocratic systems suggests that the state should still be able to maintain effective control through the political chain of command. It is this perceived control capacity that ultimately lies at the heart of the anxiety and distrust about Chinese investments, in spite of the many capitalistic traits that the Chinese economy exhibits today. In this dissertation I have shown that not only do investment behaviors differ between state-owned and private Chinese MNCs, but even China's SOEs do not always exhibit behaviors in alignment with state preferences. Chinese SOEs are at best imperfect agents of the state. Counter to intuition, the fact that China is an autocracy with disenfranchised taxpayers only leaves its state objectives more vulnerable to rent capture by powerful SOEs. Conversely, this dissertation also challenges the view that Chinese outward investments are driven purely by market forces. Whether we are looking at *de jure* official state policies or actual firm behaviors, data confirm that, by manipulating market mechanisms, the Chinese government is able to incentivize profit-driven firms to invest in accordance with state priorities. A hybrid perspective, where state preferences are channeled through market forces, would appear to be the most accurate.

Second, my findings suggest that, in spite of the ample support received by China's state firms, the concern is likely overblown that these firms will outcompete western MNCS in the immediate future and threaten the prevailing liberal market order. The prevalent perception used to be that state-owned firms are inefficient bureaucracies weighed down by policy burdens like maintaining local employment and contributing to

tax revenues. The image of SOEs I present, in contrast, is one of stealthy rent-seekers leveraging government objectives to their advantage. The source of these rents is China's domestic public, since they ultimately foot the bill when risky investments go awry, rather than monopoly rents earned in the international marketplace. China's SOEs may well have more motivation to grow their bureaucratic capacity, increase political clout at home, and extract rents from their home country than to build truly competitive global businesses. For easier exposition, this dissertation has primarily portrayed a version of Chinese elites as benevolent autocrats trying to further state objectives, but the theory in Chapter 2 also allows the reality of collusive rent-seeking between SOEs and political elites. Under that scenario, there is even less need to worry about SOEs representing a competitive threat, since the elites are only interested in lining their own pockets and the SOE serves primarily as an instrument for rent extraction, a conduit to funnel money from Chinese taxpayers to the elite via global investments.

There is also a perception, within the global policy discussion, that Chinese firms have also been able to gain an unfair advantage by engaging in corrupt business practices. However, this dissertation reveals surprising evidence from Vietnam as well as anecdotes from other countries. Systematic evidence confirms that Chinese firms do bribe more, but their offerings do not buy them better treatment than that received by other foreign investors in Vietnam. Instead, their penchant for bribery has only cultivated targeted demands for bribes from local bureaucrats and politicians. Chinese firms appear to be their own worst victim in this regard, without imposing broader impacts on the business environment in the host country.

Third, this dissertation challenges the notion that Chinese investments are neo-imperialist in nature. It is easy to assume that, for an autocracy like China, firms' economic reach and foreign policy would proceed in tandem. Indeed in some ways they do; state visits and China's bilateral relations are a strong predictor for China's investment outflow, particularly for SOEs (Chapter 4). However, China's growing overseas assets, the majority of which are owned by the Chinese state through SOEs, need not compromise the sovereignty of the host polity. Counter to intuition, state backing enjoyed by Chinese firms, ultimately bankrolled by China's domestic public, in fact reduces the need to control host country polices and to install military protection on foreign soil. Implicit insurance allows Chinese firms to operate in the face of significant political and policy uncertainty while the Chinese government adheres to the stance of non-interference. From the Zambian case detailed in this dissertation, to the Arab Spring, to the Sudanese independence, Chinese firms and government have repeatedly absorbed the repercussions of political changes in host countries instead of seeking ways to shape political outcomes.

It is, however, arguably too early to make long-run predictions about China's foreign policy. As an emerging power with limited capacity, China's diplomatic stance of non-interference can be as much of a necessity as it is a choice. Whether China will resort to military intervention in the future to protect its overseas assets remains a fruitful area of future research, discussed in the next section.

6.3 Remaining Questions and Future Research

This dissertation is the first step in a broader research agenda. Remaining questions and future research can be grouped into the following areas:

First, additional research is needed to elucidate the link between China's overseas economic interests and its potential for military intervention. While my dissertation points to one mechanism that serves to moderate the pressure of parochial economic interest on China's foreign policy, there are many other factors at play. It could be argued that the current equilibrium we observe, where the Chinese government provides its largest MNCs with financial backstopping instead of protection with boots on the ground, is a result of, rather than a long-run constraint on, China's current power capacity. This approach presents an alternative but perhaps transient model for governing international investments that is characteristic of an emerging power.

Predicting whether the Chinese leadership will resort to military activism in the future will require more detailed theorization and modeling of interest group politics within the autocracy. Snyder (1993) argues in *The Myth of Empire* that polities with oligarchic, "cartelized" structures are prone to expansion due to logrolling among parochial interests. If, consistent with Snyder's (1993) theory, China's fragmented oligarchy is prone to logrolling among business interests and the military, then China's economic reach could indeed translate into a push for military action.¹ In fact, the combined recipe of implicit insurance and logrolling among interest groups can quickly escalate China's military empire: Moral hazard incentivizes firms to make risky

¹ China's defense white paper, published on April 16, 2013, raised for the first time that the tasks facing the People's Liberation Army not only include safeguarding China's territory, but also China's overseas interests.

investments in far flung corners of the world, which in turn pull the spread of China's military presence.

Two factors can magnify this pressure further: (1) certain products delivered by SOEs (e.g. oil and gas pipelines) are deemed crucial to the stability and survival of the regime. They are fixed assets that are arguably better safeguarded through direct intervention than through financial insurance; (2) The Chinese leadership is vigilant about maintaining a facade of unity (Shirk, 2008). With a latent alliance between business and military interests, pronouncements by the military can potentially shift China's diplomatic stance due to elites' fear about revealing disagreement within the regime. However, if China's top leadership is able to take a strongman approach and prevent the buildup of a military industrial complex, then the potential for militarism is reduced.

In addition to the domestic political structure, the international environment and norms must be considered: (1) Military intervention is an increasingly less accepted form of protection for overseas assets (Finnemore 2003). (2) The current hegemon, the United States, already provides the public good of maintaining the infrastructure for global governance, from which China is arguably one of the biggest beneficiaries. There is little evidence that China as an ascending power is dissatisfied and revisionist (Kastner and Saunders 2012), and China has largely been free-riding off the American global security apparatus, particularly in the Middle East (Downs 2012). These two aspects of the international environment should have a damping effect on China's future military activism.

It should also be noted that, whether it is implicit insurance or putting boots on the ground, both are options on the broader menu of tools of investment protection and risk management. Future research will benefit from looking at additional options on the menu and the extent to which they act as complements or substitutes for one another. For example, what explains the patterns of China's BIT formation and the specific provisions within these treaties? Are protection through BIT and implicit insurance policy substitutes? To what extent have China's overseas assets driven its arms sales and military ties with other countries?

Second, better understanding is needed of the internal governance of SOEs as well as private firms. In this dissertation I have adopted firms as the principal unit of analysis, dedicating limited discussion to the incentive structure facing individual managers within the firm, the political chain of command between leaders and managers, and the personal ties between them. Separating personal ties from the official chain of delegation would allow me to test more rigorously for rent-seeking by leveraging state-objective versus rent-seeking through collusion with political cronies. The formal models in Chapter 2 accommodate both scenarios, but the current data and empirical tests do not distinguish one from the other.

Third, better understanding the corporate governance of firms will also be necessary for meaningful cross-national comparison in future research. China is not unique in having SOEs. According to UNCTAD's estimates, there are at least 550 state-owned MNCs – from both developed and developing countries – with more than 15,000 foreign affiliates and estimated foreign assets of over \$2 trillion. At that level, although their number constitutes less than 1 percent of the universe of MNCs, they

account for over 11 percent of global FDI flows (UNCTAD, 2014). China is also not unique in possessing politically powerful corporations. Moral hazard is present in any scenario where MNCs are implicitly or explicitly insured by the home state. A stronger test for the effect of home country political institutions on MNCs will be obtained after controlling for (preferably) exogenous differences in structures of corporate governance.

Fourth, I remain cautious in assessing the sustainability of China's current approach to supporting and governing its overseas investments. The seemingly endless financial support could prove unviable in the long run since, as Chapter 4 has demonstrated, it simultaneously enables state objectives in acquiring overseas assets and undermines them by encouraging firms to take on excessive risk. As James McGregor (2012) notes in his book *No Ancient Wisdom, No Followers: The Challenges of Chinese Authoritarian Capitalism*, "As China's global reach expands, this one-of-a-kind system is challenging the rules and organizations that govern global trade as well as the business plans and strategies of multinationals around the globe. At the same time, the limits of authoritarian capitalism are increasingly evident at home, where corruption is endemic, the SOEs are consuming the fruits of reform, and the economic engine is running out of gas." *Caixin* recently reported on financing shortages experienced by SOEs' overseas projects as Chinese state-owned bankers purport to take a more cautious approach to risk assessment and control.² As the Xi Jinping administration continues to push for SOE and financial reforms, it will be a fruitful area of research to monitor if and how the latest reform measures transform the incentive structure driving Chinese FDI.

² *Caixin*, "Cheers, Fears for China's Next Step Overseas." July 22, 2015.

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